CHAPTER 4

RESULTS OF THE STUDY

Individual interviews of ten students enrolled in cooperative education, their

teacher-coordinators, and their workplace supervisors, for a total of thirty interviews,

were used in this study. The interview data was used to ascertain perceptions of

instances in the students' work experiences that reflect how school-based learning gives

context to their work-based learning and how work-based learning gives context to their

school-based performance. The following three questions served as a guide for the

research:

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?

        Interviews were conducted at ten school sites in southwest Virginia with business

or marketing education programs that had a cooperative education component. The

business or marketing education teacher-coordinator of cooperative education at each school site was contacted by telephone to schedule the interview sessions. Each teacher was asked to select a student and to coordinate the interviews with the student and the student's workplace supervisor. Often several telephone calls were necessary to coordinate a time and date suitable for the three interviewees at each site. All participants were courteous and expressed interest in the research project. All participants were at the designated interview site at the scheduled times for the sessions except for one workplace supervisor who had a last-minute conflict. The researcher returned to that site the following day for the interview.

The teacher-coordinators selected the student and workplace supervisor to be interviewed from their individual school sites. They also coordinated the locations for the interviews. Nine of the ten teachers were interviewed at the school during their planning period. The tenth teacher was interviewed after school at her husband's place of business. Seven of the students were interviewed at school and three were interviewed at their work sites. Nine of the workplace supervisors were interviewed at their worksites and one came to the school to be interviewed.

The interview sessions were designed to last between 30 and 45 minutes. None were less than thirty minutes but some were about one hour. Transcripts of the individual sessions produced varied amounts of printed pages. Transcripts ranged from 6

to 22 pages per interview, which resulted in approximately 300 single-spaced pages of keyed and printed data.

The occurrences of common themes along with the consistency of responses were indicators to the researcher that the number of participants was adequate. Themes were developed by content analysis, a "research technique for making replicable and valid inferences from data to their context" (Krippendorf, 1980, p. 21) of the interview transcripts.

Students' Demographic Data

Information regarding student demographics came from the demographic data sheet for each student that was completed by the researcher prior to each interview. Additional information was obtained from the interview transcripts, wherein students discussed their involvement with the cooperative education programs.

As indicated in Table 1, all student interviewees were enrolled in a business or marketing cooperative education program. Seven students were seniors and three were juniors; they ranged in age from 16 to 18. Compared to students the teacher-coordinators had worked with over the years, four students were described as being in the top 25% and six were described as being in the top 10% in the cooperative

Table 1

Students' Demographic Information

Grade	Program	Job Title	Type of Business	Related Courses
12	Marketing	Waitress/Cook	Restaurant	Marketing, Intro. to Business, Office Administration, WordPerfect, Fashion Merchandising
12	Business	Office Assistant	Engineering Firm	Word Processing, Keyboarding
12	Business	File Clerk	Bank	Keyboarding, Adv. Keyboarding, Computer Applications, Office Administration
11	Marketing	Cashier	Grocery Store	Intro to Business, Marketing, Keyboarding
12	Marketing	Production	Factory	Marketing, Keyboarding
12	Marketing	Receptionist	Factory	Marketing, Advanced Marketing, Keyboarding
12	Business	Office Assistant	Insurance Company	Intro to Business, Office Administration, Business Law, Keyboarding
11	Business	File Clerk/ Data Entry	Construction Company	Keyboarding, Computer Information Systems, Accounting I, Desktop Publishing
12	Marketing	Sales Associate	Retail Store	Marketing, Keyboarding
11	Business	Office Aide	Vocational School Office	Keyboarding I & II, Office Procedures I, Accounting I

education classes. All students had taken at least one business or marketing class, while the majority had taken several, and all students had at least one computer class. Nine of the student interviewees were female and one was male. All student interviewees were active members of either Future Business Leaders of America (FBLA) or Distributive Education Clubs of America (DECA).

Teacher-Coordinators' Demographic Information

Demographic information for the teacher-coordinators was taken from the data sheet that was completed by the researcher before each interview. Additional information was obtained from the interview transcripts, wherein the teacher-coordinators discussed their involvement with the cooperative education program.

As indicated in Table 2, teacher-coordinators of cooperative education had been teaching from 2 to 31 years, with the average number of years being 15.8. They had served as cooperating teacher advisors from 1 to 19 years, with the average number of years serving as cooperative advisor being 8.8 years. Each of the 10 teachers had worked in the business environment in jobs other than teaching. Each of the 10 teachers also served as FBLA or DECA sponsor. Five business teachers and five marketing teachers were interviewed; six were male and four were female.

Workplace Supervisors' Demographic Information

Demographic information for the workplace supervisors was taken from the

Table 2

Teacher-Coordinators' Demographic Information

Program	Number of Years Teaching	Number of Years as Teacher-Coordinator	Positions Worked in the Business Environment
Marketing	2	2	Retail Clerk
Business	16	10	Secretary
Business	31	9	Office Manager
Marketing	10	10	Retail Clerk
Marketing	14	12	Contractor
Marketing	13	13	Sales Manager
Business	19	2	Secretary
Business	29	19	Secretary
Marketing	10	10	Sales Manager
Business	14	1	Retail Manager

Table 3

Workplace Supervisors' Demographic Information

Business	Job Title	Responsibilities
Restaurant	Owner	Oversee general management
Engineering Firm	Office Manager	General office duties, Responsible for entire office
Bank	Team Leader of Operation Support Unit	Coordinate team efforts; Handle customers
Store	Store Manager	General management of labor, inventory, and finance
Factory	Personnel Manager	Hire for 4 plants; explain policies to new hires; oversee personnel
Factory	Office Supervisor	Office management of shipping, accounting, inventory, and safety director
Insurance Company	Vice President	Day-to-day supervision of office and sales
Construction Company	Corporate Controller	Financial aspects of the company such as taxes and auditing
Retail Store	Store Manager	General operations--scheduling, training, sales, payroll
Vocational School Office	School Secretary	Work for administrator and 32 teachers; general office duties

data sheet that was completed by the researcher before each interview. Additional

information was obtained from the interview transcripts, wherein the workplace

supervisors discussed their involvement with the cooperative education program.

The workplace supervisors were a diverse group with varied job descriptions and

responsibilities. Some workplace supervisors were involved with the local school system

while others had virtually no contact with the school except for having a student enrolled

in cooperative education working for them. Therefore, some workplace supervisors were

more knowledgeable of the students' school experiences and others knew only of the

students' activities at the workplace.

Seven of the workplace supervisors interviewed were female and 3 were male. A

description of each workplace supervisor's business, job title, and job responsibilities

appear in Table 3.

Responses to Research Questions

The researcher read all transcripts and highlighted key words. Themes were

developed from the highlighted words. The themes identified fit within the framework of

the three foundational skills and the five competencies identified by the SCANS (1991)

report. The foundational skills include (a) basic skills--including 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. The five competencies identified in the SCANS (1991) report that workers can productively use are : (a) resources--allocating time, money, materials, 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, monitoring and correcting performance, and designing or improving systems; and (e) technology--selecting equipment and tools, applying technology to specific tasks, and maintaining and troubleshooting technologies.

School-Based Experiences, Research Question 1

Research question one asked: What school-based experiences do students, teachers, and workplace supervisors perceive have provided learning in the context needed for the students' enrolled in cooperative education work-based experiences?   To answer research question one, interviewees were asked to list five specific school-based learning activities or experiences the student had been provided that focused on the application of knowledge, skills, and attitudes as they are used in the workplace. From the list generated, interviewees were asked to select one activity that they felt had helped the student most in transitioning to the workplace and to describe it more fully.

Foundational Skills

The foundational skills identified in the SCANS report as necessary for workers were, also, identified by interviewees as school-based experiences that provided learning for the students in the context needed for work-based experiences. The foundational skills categories are basic skills, thinking skills, and personal qualities.

Basic Skills

Basic skills include reading, writing, arithmetic and mathematics, speaking, and listening. Teachers, students, and workplace supervisors discussed the importance of students having basic skills when they enter the workplace. Reading, writing, and math skills were described by interviewees as skills students had learned at school that helped them in the workplace.

Reading, Writing, and Math Skills. A teacher noted that students need to learn how to read employee handbooks and understand what is important to them as an employee. He said,

> They [students] need to know how to read the employee handbook. Not just read it but take out the important factors. We use employee handbooks from around town, not where a student actually works, but they can say "mine relates to this." For example, a handbook might state that employees must give employers two weeks notice prior to [a day off]. This forces students to look at the calendar; it forces them to say, this is what I have to do in order to take time off.

Another teacher indicated that "technical reading" was important for students as employees. He noted that technical reading helped students with problem-solving

activities and helped give them an understanding of employee rights and responsibilities.

He said,

> Well technical reading is one thing we work on as far as the various terminology
> and paperwork, employee handbooks, and disclaimers. For example, Walmart and
> Food Lion, in particular, have lengthy technical disclaimers. And I learned a long
> time ago as a kid when my Dad was in the auto business that if I could read and
> understand various manuals, instruction manuals, and so forth it would help me
> from a problem-solving aspect of understanding that there is a definition to a
> problem and a way of solving the problem. So I try to instill that in my students.

A student noted that "my reading skills are very important, because we have to

read a lot of instructions, and if you read well you don't have to ask so many questions."

Another student said that her proofreading skills had proven to be very beneficial on the

job. She stated:

> When I'm typing letters for [my employer], they'll have mistakes or run-on
> sentences. And I have to go through and proofread and change them how I think
> sounds best but still meaning what [my employer] wants.

Another student said math and writing school-based activities had helped her in

the workplace, she stated:

> I'd say not only my marketing classes, but a lot of my math classes and English.
> Well, math for one reason, I have learned how to deal with money "hands-on" and
> that helped a lot and also English. English class helped me to know how to write
> things at work.

A teacher noted that he does a unit on how to make change. He feels this is a

basic skill that students need in the workplace. He said,

> We do have a cash drawer chapter on how money goes in the cash drawer and how
> to count money, how to make change. Of course, everything today is done
> electronically, you don't have to count it like you used to, but I still teach them

the old way of counting of making change. I tell them that sometimes the power may go out and they may have to be able to do that. I try to teach them how to handle the money and do complete sales checks, which you have to do at a lot of retail jobs.

A marketing teacher said that he "started incorporating writing skills into his curriculum three or four years ago." He noted,

Now I'm trying to get them to write. I'm not really a good grammar checker myself. I'm looking at the ideas they're presenting me on paper rather than the technical aspects of the writing.

He further noted that he often gives group writing assignments where the group must arrive at a consensus concerning a problem or idea. He says this builds "not only their writing skills, but their thinking skills, and their problem-solving, plus the idea that you've got to compromise."

A teacher-coordinator, the student enrolled in cooperative education, and the workplace supervisor at one site all agreed that learning math skills were essential for students "because computers don't always work." Each of these three interviewees described an incident were the workplace supervisor was out of town and the student had been left in charge of the store. The electricity went off because of a storm and it was store policy to remain open.   The teacher said, "the student really had to think on her feet." The student said,

The electricity went off and I was afraid the computers wouldn't come back up and we had to hand write receipts, do the credit card slips, and figure sales tax and do all of those things by hand.

The workplace supervisor at this site also noted that it was important for students to have basic math skills. She said,

> We don't lock the doors because the electricity goes off, we hand write tickets, and we have people here who rely so completely on the computer that they forget how to count. But [the student] had a good math background and was able to continue on with her job.

A student described an office simulation in which she had to not only type letters but plan, organize, and compose letters and memos. She said,

> Last year in office administration, they gave us a booklet and you worked for such and such company and we were the secretaries. We had to type out memos and letters and all kinds of things. We even had to do [a simulated] complaint in the office and the boss wanted to write a letter to somebody [about the complaint]. We had to write the letter and organize it and everything. We did a lot of that, there were all kinds of different things. It was fun.

A teacher told about a business management simulation that lasted for six weeks. The students learned about different aspects of a business including accounting principles and writing business letters and memos. The teacher noted:

> They [students] had to write memos a lot. At first they were real confused about how to do that and by the end they had it down pat.

Teachers at four sites commented that they had students enrolled in cooperative education keep a "job journal." Students were to write about things that happened on the job, both positive and negative. One teacher stated that the job journals helped him to keep abreast of what was going on at the students' workstations probably better than

anything else. He said students would often "write things in their journals that they

would never discuss with me." He noted:

> The kids keep journals, job journals, and I've been able to identify lots of
> problems out of that, just reading them. When they come into class, they write
> about five minutes about what they did at work the last couple of days. So and so
> said this, or this person got in a fight, or my supervisor said this, or I got a
> compliment, or I got employee of the month, or those kinds of things. And a lot
> of times the things students won't tell you about, they'll write about in their
> journal. So it helps you kind of keep up with things and identify problems and
> things like that.

This teacher described an incident where the student wrote in the journal that he

had been chosen employee of the month.

> . . . and also I've got some kids that would never tell you in a million years they
> got "employee of the month" because you know that looks "baaaad" to be
> "employee of the month," but you know you find out about it. And its OK if I
> mention it and bring it up, but they're not going to bring it up as far as their peers
> [are concerned]. When I mention it, they're going "ahhh" but they're actually
> quite pleased otherwise they wouldn't have written it in the journal. So the job
> journals are quite enlightening sometimes. Some others just write daily routines
> every entry . . . but some of them actually use it as an outlet.

For students, the journals provide a number of benefits including written

communication skills, learning to organize their thoughts for writing, and of course

critical-thinking skills as they analyze what they are going to write about. Often the

writing exercise helps the student to walk through a problem that has arisen on the job

and to understand the problem from the supervisor's viewpoint. One teacher told of the

importance of the job journal.

> I think what it is designed to do is part of the old reading and writing to learn
> tradition from several years ago, but the journals actually kind of help them with
> their communication skills. The majority of the students that I enroll are not great

communicators, and anything that we can do to kind of keep them writing [helps them]. I don't grade the journal as far as vocabulary and things like that, but I do grade it on content. I'm interested in the kind of information that they give me. It's more of a communications tool.

A student at one site talked about a thirty-page job description manual that she put together to enter into Future Business Leaders of America (FBLA) competition. This student, her workplace supervisor, and her teacher-coordinator all noted that this activity was a definite linkage between school and work. The student told about the manual and of her employer's encouragement and participation in helping her to compile it.

It's a manual that we enter into competition and you have to be at a place where you work. It goes into the history of the office, an overview of my job, what I do day-to-day, and how I feel about my co-workers. I got some information on salary for what we call an insurance clerk, and it gives you an idea of what the insurance business is like.

[My employer] was very good. He let us come and take pictures. He even let me miss a couple of days of work to enter it in competition, so he was very cooperative with that. We had to have a group photo and he closed the office so we could get the group photo. He helped a lot with it. I mean he gave me the information for the history; and I had to do a blueprint, a floor plan of the office, and he helped me with that, he helped a whole lot with that.

Speaking and Listening Skills. In addition to reading, writing, and math, the communication skills of speaking and listening are basic skills needed in the workplace. Learning business vocabulary was considered to be an important school-based learning activity that provided learning in context for students to help them connect school with work.

A student noted that one of things that had helped her on the job was learning the business vocabulary.

> Office administration teaches you a lot of the vocabulary that you use with business jobs, that we use there [at my job]. It makes me more familiar with the terms that we use at work. The vocabulary and grammar and all the things we do in office administration during this year have helped me. At the first of the year, I was lost. I would hear them [at work] talking about different things, but once we went over all this in office administration [it helped me], now I understand more.

The student further noted that learning the business vocabulary had enhanced her speaking skills.

> I don't use so much jargon now; I use more business words and things like that around my employer and words we are supposed to use in a business job. It helps you get your words more related to your environment.

A teacher at another site also remarked that one of the things that the students were learning at school was business terminology. He noted, "I hope the knowledge they're [the students] developing is a vocabulary about the business world."

Oral communication skills were listed by interviewees over and over again as one of the most important things that students had learned in school that helped them connect school with the workplace. A marketing teacher discussed some role play activities that he used in class to help students with their communication skills and their critical-thinking skills. He stated:

> We did a lot of role plays with me being the bad guy. They [students] had to tell me what I was doing wrong, why I couldn't do that. They wanted to say, "because I say so" so many times as the answer but that wasn't good enough; they had to back up their situations. They had to back them up with research and

they had to provide that and in that six weeks they did learn something about communication. They always had reasons why things worked the way they worked, which was quite good because time and time again in business or at home they get the answer "because," "because I'm the head honcho," "because I'm the boss," and they never really understood the justification behind the reasons. So that was a good experience for them.

He noted that this activity was useful in helping students link school with work because it "helped them with their reasoning." He said:

When the boss says "because I'm the boss" or something like that, they [students] know that there is a better reason for me to do something or the boss wouldn't have me doing it.

One student reported that her cooperative education had helped her understand that if "she has a problem on the job to go to her workplace supervisor" and explain the problem and that the workplace supervisor is willing to help. She noted that the teacher encourages the students to communicate with employers. She said, "[the teacher] tells me to ask, to go ahead and talk about it and not keep things inside of me. Because he says it just builds up and it gets worse if you don't tell it. This student also said that by learning to communicate and ask questions she has gained a better attitude and overcame her shyness. She noted,

Well, I've got a better attitude, I'm not shy anymore. It's helped me because I was real shy and I wouldn't talk but now I've been here almost a year and I just go ahead and ask and they tell me.

A teacher told of an incident where the student was afraid to ask for a day off from work. With the teacher's encouragement, the student overcame her fear and learned to communicate with her boss if she had a problem. He related the following incident:

She [the student] wanted a day off to do something one time and she came to me and she said she was just afraid to ask. I thought, "well I'm sorry but I'm going to make you do the asking." She was kind of terrified so I went down and talked with her employer and I just discussed it. He said, "I'm sorry she feels that way, she shouldn't be afraid of me." So anyway, he said, "don't say anything to her, just make her come in here and we'll talk about it." So I took her out in the hall and I said, "I've thought a lot about this and I think you really ought to go down there and face your fear." And she did and it was just like a flower blooming, suddenly she liked her job a lot better, and it changed her performance. Basically, that one thing, just overcoming the fear of talking with her employer. And all I did was give her some tips about going into his office and talking to him--don't touch his desk, make eye contact and smile, politely state what you need, and then be quiet and let him answer and respond. She came back the next day and she said, "you know, I don't know why I was so afraid."

Another teacher said that he really stressed oral communication skills in the classroom, because he believes improved speaking and listening skills results in improved job performance. He said,

Communication probably being the most important skill. And when I say communication, it would be everything from their understanding and working relationship with their employers to the customer to their classes here at school. We use the video camera and various other tools to facilitate that. For instance, sometimes we'll let a student do an introduction on the video camera and maybe just them watch it and nobody else. And when a student improves their communication skills it is naturally going to improve their job performance.

Thinking Skills

Thinking skills include thinking creatively, making decisions, solving problems, seeing things in the mind's eye, knowing how to learn, and reasoning. Decision-making and problem-solving were considered important skills for students to develop in school to help them connect school-based learning to the workplace. This category was so closely intertwined with reading, writing, and math skills as well as human relation skills that

many references to thinking skills are incorporated into those areas. Interviewees noted

that students were involved in various simulations. These simulations were designed to

help students with their communication skills, with their human relation skills, and also

with their thinking skills.

One teacher-coordinator said that in his capacity of advisor to students he tried to

help them to reason out all possibilities and make wise decisions. He stated,

> When student have problems, I try to talk to them not to say here's what you
> need to do but I try to say here's some possibilities. I lay out some choices and
> then I try to get them to think of the consequences that would happen with each
> choice they would make and then I let them make the decisions. That's how I use
> my advisory part when the student has a work-related problem.

A marketing teacher said "we do a lot of problem-solving" in class. He provided

work-based application problems and scenarios that help students see the relationship

between theories presented in class and actual application of those theories to a work-

based situation. He said,

> I do a short lecture, maybe 15 or 20 minutes, on an idea for the day. Then I'll
> divide students into groups and we'll do brainstorming or a problem-solving
> session based on that idea. A lot of times I make up mock problems and they
> have to come up with five alternative solutions. We put them all five up to the
> class and then they'll pick one. And then the big question is now I don't want
> any answers on this, but in your heart, if you were in that situation, right now the
> way you see things, what would you do? And then of course we do role plays
> and groupwork for different ideas I want to get across. And all of these are
> designed to be a direct relationship between the theories in class and the
> applications downtown.

Personal Qualities

Personal qualities include individual responsibility, self-esteem, sociability, self-management, and integrity. A number of skills mentioned by interviewees fall under the category of work ethic skills. One teacher said he teaches about employability in three phases: one, getting the job; two, maintaining the job; and three, turning the job into a career. The work ethics skills deal with phase two, maintaining the job, and include attendance, dependability, and punctuality. A teacher talking about the importance of work ethics said the motto for his classroom was, "we learn by doing."

One teacher noted that she stresses the importance of attendance on the job and how the student must exhibit responsibility and dependability.

> We have an attendance policy and our attendance policy is students can miss five days during the semester and when they hit the sixth one they have to start making time up with the teacher hour for hour. Well five days to a student doesn't sound like very much, but if they miss five days from work in a semester, ten days in a year, that's a lot of time. They are potentially going to get fired. So that's one of the problems that I have with the students, trying to get them to realize that they can't be out five days in a semester and that if they are required to be on the job, they need to be there. There are extenuating circumstances, if it snows or if they are sick. But it's their responsibility if they are out for a legitimate reason to call the employer to let the employer know that they are going to be out, those types of things. I think what the employer expects is usually more strict as far as attendance than what we expect here. I think it's good for students to see that maybe they need to be more conscious of what employers expect.

A workplace supervisor also noted that the students learned at school how important attendance is in the workplace. He stated,

There's a number of things stressed in the classroom that help the student in the workplace. One of them is the idea of being there every day. It sounds real simple, but there's a lot of folks that graduate from school that don't have that concept. That is something that we have been real successful with the folks that come through this program. It's been stressed to them "look, just because you get a job doesn't mean that it's yours for life." I mean you've got to be in there and working it and you've got to be there every day.

At one school site, the student worked in a production setting. This student, his teacher, and his workplace supervisor all talked about the importance of safety training provided at school that helped the student connect school-based learning to the workplace. These interviewees noted that the student had not only a duty to himself but to his fellow employees to work in a safe manner. Interviewees further indicated that personal responsibility for safety was essential for every worker. The teacher at this site noted,

We do two or three kinds of safety training. I have a consultant come in and we go out here in the parking lot and build two or three big fires and let the kids put those out to learn how to calmly approach and deal with problems like that. We do a series of safety training on lifting and carrying--materials handling. Safety is the primary thing. Students employed through the cooperative education program have exemptions through the Department of Labor to work in these industries at earlier ages than normal. The exemption is based on safety and training and job supervision, so the training we take quite seriously. A lot of times we'll be doing like material safety and the kids will say "oh yeah, we did that at work last night." So I think all those parallels, what they get here, and what they get at work actually helps make the connection.

The workplace supervisor at this site also emphasized the importance of safety and how the student received this training at school and at work. He noted,

Another thing he [the teacher] goes over is safety and that's very helpful because safety is a big focus in our company and with the cooperative effort going together we hit them [students] from both sides. They get a lot of safety training here at

the school before they go out to the workplace and that teaches them to be careful with things and it teaches them how to think safety, where they might not have had that kind of training if they had not come through this program.

Business teachers talked about the importance of students producing quality work. One teacher summarized this point nicely. He said,

If there's any errors in the students' documents they are not acceptable. In other words, before they can even turn them in, they've got to be 100% error free. So I think that shows an attitude that they are not going to get by with doing just anything to get by. Students have to take responsibility for their own work. In the workplace, work has to be error-free and we're trying to teach kids that.

Many interviewees stressed the importance of students having a positive attitude in the workplace. They said that attitude was much more important than technical skills. One workplace supervisor told of hiring one student enrolled in cooperative education because of the student's skills, but the student didn't work out because of a poor attitude. She went back to the school and hired another student enrolled in cooperative education that did not have as many skills, but had a very positive attitude, and that student is working out for her.

We had a bad experience, we had a guy in here and it was just awful. I don't want to talk bad about the program, because it's nothing like that. I figure he just developed some personal problems of some sort, but he just needed people skills. He wasn't easy to talk to and answering the phone, he just didn't have any personality. I could tell him things and it was like it didn't register, he misfiled things, and I could send him on errands and he just wouldn't come back. It was just awful. And then we got this student and she's working out just great. I had interviewed her too, but she didn't have as many skills as the other person did. He had other jobs that were kind of related and he had more kinds of business skills and this was her first business class and I had based it on that. I think common sense has a whole lot to do with it, a willingness to learn.

When one teacher was asked what the student had learned at school that best helped the student connect school with work, she said attitude and human relation skills were at the top of the list.

> I'd like to bring out attitude and human relation skills and I can't express them to the [students] enough how important they are. They can't choose who they work with like they choose their friends because they've got to work there and you've got to be able to get along with people and attitudes make all the difference in the world. And that's probably one of the biggest things that I emphasize.

This teacher said she uses a variety of strategies, such as role plays, case studies, and groupwork to stress the importance of attitude.

> I have a little book that I use; it's all about human relations and it's not necessarily a textbook but we talk about peer pressure and honesty on the job, topics like that.

From this activity, the teacher noted that the students learn a host of positive job-related skills and attitudes. She said:

> . . . I think responsibility, dependability, just an overall factor of having a good attitude on the job. Loyalty, that's a thing that people don't understand and with students I try to emphasize that loyalty is not going out and bad-mouthing your employer or your place of employment. I mean that's where you work, that's where you earn your living, and they have a hard time understanding what loyal means; but those kinds of things.

Another teacher noted that although she uses case studies occasionally she felt that attitudes are difficult to teach. She noted,

> I think that's something you can talk about in class. We sometimes do some case study things where we look at situations and have discussions about what would be the best way to handle that particular kind of thing, but it's just sort of an individual basis. I think a lot of it is just personality, which by the time they are in high school you can't do a lot to change.

A teacher at another site, felt that teaching students to have a positive attitude was one of the most important things that he could teach the students before they began their cooperative job experience. He noted,

> I've found in the last three or four years, I've had trouble with kids having the right attitude about work. It seems it's gotten harder and harder to get them to understand responsibilities that go along with keeping a job, so I spend the first six weeks going over those types of things--getting along at work, getting along with others, positive working relationships with others on the job. I teach this through notes, discussions, question/answer sheets, worksheets. We get into case studies about rights and responsibilities on the job; we get into honesty, dependability, and loyalty. We go into quality customer services, which is one of my favorite things, how to take care of the customer. We have a workbook that goes along with that with everything from how to answer the telephone to how to handle emergency situations, how to handle upset customers, how to handle complaints, and give case studies of how they would handle it. I also have a computer program that deals with these issues that I'm incorporating into my classroom.

He continued, explaining how the students could use this learning on the job,

> This is the first year I have used that. That is the first six weeks, I start with it because to me it's the most important. I try to get them in the right frame of mind for their job for the rest of the year. Hopefully, we'll reduce some problems, something happens at work, they won't blow up and get mad and walk out; they'll have a proper attitude about it and they'll say, "this isn't the right way to handle this. I have to remain calm, have a proper positive attitude about it."

One workplace supervisor noted that he didn't know if having a positive attitude was stressed at school, but that he felt that students "need a positive attitude then they will be what I consider a good influence on the workplace. If they have a good attitude then they are going to be willing to learn and not shy away from challenges." Another workplace supervisor noted that he was looking for students with a good attitude and a willingness to learn. He stated,

Basically what we look for more than anything is attitude. With the attitude of being willing to learn a skill and being willing to get in there and work everyday and work hard and try to learn something. [Technical] skills are very important and some folks can learn faster than others, but we're not looking as much for the specific skills they have as for the attitude of being easy to teach and easy to train. That all comes from attitudes that they are taught at home and at school, about work ethics and things like that. We do look for skills also. I mean that helps them, obviously, the more they know before they get there the less they've got to learn when they get there. But to me [based on] the experience that I have had, it's harder to teach somebody good attitude that it is to teach them a skill.

Competencies

In addition to the foundational skills, the SCANS report also identified five competencies that workers can productively use. These five competencies were also identified by interviewees as school-based learning experiences available to students that provide context for work-based learning experiences.

Resources

Resources includes the allocation of time, money, materials, space, and staff. Since the students were in entry level positions, they were not responsible for the allocation of money, materials, space and staff. However, interviewees did mention that time management is important for workers. Interviewees did not note time management as being a school-based activity but it was discussed in question two as a work-based learning outcome that helps students with their school-based learning activities.

Interpersonal Skills

Interpersonal skills include working on teams, teaching others, serving customers, leading, negotiating, and working well with people from culturally diverse backgrounds. A teacher noted that he felt it was important for students to understand human relations. He believes students need to understand their own strengths and weaknesses so they can understand others in the workplace. He teaches human relations skills in a variety of ways. For example, he uses handouts to help students learn about themselves and then presents a number of case studies to help them understand relationships in the workplace. He notes:

> In the beginning of human relations, they learn more about themselves, about their strengths, and what their weaknesses are [such as] lack of patience, tolerance, and things of that nature. I think this is very important because they are going to have to apply themselves to the world because the world is not going to change to cater to their needs and that's a big reality factor.

At another site, a student noted that she had learned human relation skills through community service activities she had participated in through Future Business Leaders of America. She said, "just getting involved with other people" had prepared her for the workplace. She noted:

> It [community service] gave me a more sincere look at other people. I worked a lot with the nursing homes with elderly people and it taught me better communication skills--how to be more clear when I speak out to other people and especially to the elderly. It gave me more one-on-one touch with them and [I learned to] sympathize with them. It made me more aware of everything around me. I was never really aware of how the nursing home worked or anything like that and how depressing it actually is. I was never aware of all the trash around until we started cleaning that up and it made me want to help my community and keep it clean and it just made me more involved in wanting to lend a hand to help everybody else, not just myself.

This student continued that her community service had helped her with her "people skills" and that her attitude had changed.

> My people skills really improved a lot. I became more clear, I still find that when at work, I'm more clear with elderly people. My attitude has changed so much, I used to always have a really bad attitude, but I just learned to cope with things and how to approach problems differently. And how not to get upset about the tiniest little things anymore and how to solve my own problems, and if I can't [solve my problems], not to get all disturbed about it. We talked a lot about that [in school], how you can't bring your problems into the workplace.

Another student noted the most important thing she had learned in school that helped her transition to the workplace was human relation skills. She said the teacher used lecture, class discussion, and case studies to emphasize the importance of human relations. The student stated, "we learned if customers are angry how to take it and soothe them the best you can, because the customer always comes first at work." She went on to say that she had had a shoplifting segment in her marketing class that had helped her to deal with an actual case of shoplifting at her place of employment. She noted,

> We had a unit about exactly what the law states about shoplifting and we watched videos on how to deal with certain things that people would say and deny they were shoplifting. That helped me a lot, because otherwise I wouldn't have known what to do. I would have accused him right then and there and that would have gotten us a giant lawsuit.

A teacher at one site said the second phase of his curriculum is "maintaining a job." In this part of the curriculum he deals with human-relation skills and conflict resolution. This teacher stated,

We have activities about being to work on time. One of the biggest things I try to get across as far as dealing with customers, dealing with supervisors, and dealing with co-workers when there's a conflict is to maintain that attitude that this is business, it's not personal. I tell students "don't take things personally and you can usually solve any problem." It's usually when you get angry and out of adjustment that you really mess up.

A student stated that leadership skills she had learned through Future Business Leaders of America were what helped her most as she transitioned to the workplace. She stated,

I guess my leadership skills I would have to pick [as being the most important thing learned through school activities] because there's so many different types of people that you have to deal with from day to day and no matter what you've always got to be positive and be pleasant because your clients are yours and that's how you make your money. It's always important just to have a positive leadership type of attitude that helps you deal with everybody. [Through these activities] I've gained a lot of confidence in myself and become more mature than my other friends. I've more responsibility about myself and that helps a lot.

A workplace supervisor said that inclusion of special education students into the classroom had helped students with their human relation skills and gave them more compassion for people with disabilities. She felt that this helped students to deal with all kinds of people when they are in the workplace. She said,

I think that [inclusion of special education students] provides a lot of acceptance and takes away a lot of the fear of differences and that's pretty important. It gives the students compassion. Just not being afraid and to understand their differences, and sitting beside somebody for a whole semester and talking to them and seeing that they're not so different, they just have a disability. I think it provides a lot of knowledge that will help them in the workplace.

Discussing customer relations, a student felt that learning to deal with customers was an important school-based learning activity. The student provided an example of a

customer that had gotten upset with her. Applying training from school on how to deal

with customers, she had remained calm. She commented,

> Well in my business classes, we are taught how to deal with people when they get upset. That helps a lot because sometimes customers get a little bit upset and you have to stay calm. Once a customer got upset with me, as I was walking away from the table he asked me for something else and I didn't hear him and then he yelled at me again. When I did hear him, I came back to the table and he called me "stupid." Which I mean really upset me, but I couldn't let it show and I was just nice about it. He asked me if I was stupid and I said, "no sir, but if you need something I can get it for you." After that, he apologized so many times because he felt bad that I was so nice to him. And that helped a lot and it got me a good tip.

When asked how she had been taught about dealing with customers at school, the

student responded that simulations were used in the classroom. She noted,

> In our marketing class, he [the teacher] had simulations set up where he would be the customer and he was upset about something and we would have to be managers and have to deal with the situations. He also did employees and we were managers and we had to deal with employees fighting or something like that.

From learning to deal with customers, this student noted that she had gained a

"more positive attitude." She said "things don't upset me like they used to, because

every little thing that people did upset me, but now I've learned to deal with it and not

take it to heart." Another student also felt that learning about customer service at school

had helped her in the workplace. She said,

> The customer service really helped the most because it teaches you to deal with different types of people. We did a unit on it and [the teacher] would have us write a couple of paragraphs about how we would deal with it. I think I can deal with people better and I have more patience.

A workplace supervisor also noted that the student had learned about customer service as a school-based learning activity. He said,

> He [the teacher] did a group thing on customer service and how to relate to the customers and how to relate to the public. We are very customer-oriented here and always one-on-one with the customer. Those customer service skills that she learned [at school], she's brought with her here and it makes her more comfortable speaking to a stranger.

Information

Information includes acquiring and evaluating data, organizing and maintaining files, interpreting and communicating, and using computers to process information. One teacher noted "we have become an information-oriented society." Students learned to process information in school-based activities in various ways. Computer skills, as might be expected, ranked number one in interviewee responses, but following close behind were things like typing, filing, telephone skills, and knowing how to use the calculator.

A student indicated that learning typing skills in school had been beneficial on the job. She said, "I type a lot here and the typing class really helped out on that." Another student also said "my office skills like typing and filing help me here[on the job] a lot." She continued, "letter formatting that I learned in keyboarding and similar things I learned in school helped me on my job." Another student also reported, "in keyboarding class we had to go through a whole section on writing business letters and that has helped." A third student reported, "I think the thing that has helped me most is keyboarding, because I use it at school and on my job too."

A student at one site noted that her typing skills helped her to put information

into the computer faster which helps her in the workplace. She said,

> I would have to say when I took keyboarding that keyboarding helped me a lot
> because of what I'm doing with the computer. In keyboarding, I learned to type
> which helps me to put information into the computer faster to help the customers.

A workplace supervisor noted that computer skills were one of the things that

prepared the student for the workplace. He said, "definitely, typing skills and the basic

business functions like filing and the different software programs." Another workplace

supervisor said, "obviously computer skills are very important."

One teacher commented, "we always do filing skills." Another teacher said she

always "goes over the filing rules using a little software program." A student noted that

"learning the filing systems in office administration had probably helped most" in

transitioning to the workplace. This student stated,

> Well, of all my business classes, I would say office administration helped me the
> most. We talked about the filing systems, which I am a file clerk with First
> Union, [we learned] about the manual files and electronic files and how to file by
> hand to doing things on the computer and that has helped me a lot at First Union.

This student's workplace supervisor also noted filing was one thing the student

had learned in school that had helped her in the workplace.

> She is responsible for retrieving documents from the files and filing documents in
> the files. We have customers who make requests for copies, they request originals
> to be sent to them in the branches and she's responsible for pulling those. On the
> PC she's required to find titles or deeds, but primarily her duties are probably

retrieving and filing various types of documents. I'm sure she had some filing experience before she came here, because she's in the FBLA [Future Business Leaders of America] and in the business courses she had some filing experience.

Two business teachers noted that they included individual units in their curriculum about "how to use the telephone, about filing, using calculators, and things that students would have to know in an office environment." One provided the following example of calculator activities students were doing in their office administration class:

What we're working on now is the calculators and the types of payroll problems. They [students] are working on computing sales tax, they're doing inventory, and they're doing a variety of business type situation problems.

A student at one site stated that in her office administration class she had learned "how to use the calculator, filing, telephone skills, and how to do letters." A student at another site described a management simulation in which students had to learn about all aspects of a company. She noted:

In marketing this year we did a management simulation. We worked for an ice cream company and we had different departments that we have to work in like finance and planning and all the different departments.

A teacher noted that her school had won an "excellence in education" award for a simulation students had done to teach them life skills. She said,

We just won an excellence in education school-to-work award for a project we did in finance where we got a job and sent every student out for a specific task. They had to buy a car, plan a funeral, get a job, change jobs, lease a car, buy insurance, invest, get a credit card, get a checking account, every life skill that you could think of that you would have to do as a young adult, [including] rent an apartment. We sent out students to do all those tasks and I think it made a major impact on them.

Students and teachers at two sites noted that learning to do taxes in classes had helped the students as they transition to the workplace. Two students commented,

> I learned to do my taxes and that's important. Before I was just completely blank on taxes and I know how to do those now and I learned to balance my checkbook.

> I learned to do taxes. I filled mine out this year, we usually do it sometimes by the telephone. I didn't get to do that this year because I had moved and had to do mine the long way. So when he[the teacher] trained us, that helped a lot.

One teacher also talked about helping the students learn to do their own taxes and learning taxpayer responsibilities as an important part of transitioning to the workplace. He stated,

> All the students file their taxes and we record on the board when they filed and how quick they get a refund. We file teletax, we file by telephone so we do demonstrations on that as far as teletax filing. And purely from a personal reason, I want to get them into taxes so I can retire. But it gives them taxpayer responsibility and we focus on that.

Systems

The category of systems includes understanding social, organization, and technological systems, monitoring and correcting performance, and designing or improving systems. Interaction with businesses through field trips, guest speakers and appreciation banquets gives students an understanding of organizational systems. A number of interviewees mentioned field trips and guest speakers as meaningful school-based

activities to help students make the connection between school and work. A teacher at

one site noted:

> We have guest speakers. I brought one in this morning for fashion merchandising
> to talk about how she buys clothes for her store...So that's a good way to bring
> people into the school and vice-versa, take students out. This year, we had the
> opportunity to visit a local plant. We had a gentleman come in and talk about
> unions and labor relations and why unions are important and, then, we were
> invited to take a tour of the plant. They [students] got to see how everything
> runs, and we were taking students out of the classroom into the work environment
> so they could see what's going on. That's a vital role in bridging the gap rather
> than me just talking all the time.

Another teacher spoke of the value of having former cooperative education

employers as well as former students enrolled in cooperative education talk to her class

about how the cooperative education program had benefited them.

> I've invited some of my cooperative employers to speak to my class and they
> outline what they expect of an employee and what makes a good employee.
> That's always been a really good kind of interaction, with the employer actually
> coming in and telling all of the students what they expect as employers. I've also
> had past cooperative students to come in and tell the students how this has helped
> them later in life--being able to go to work and go to school and maybe earn so
> they can further their education and use the skills they've gained on the job and in
> the classroom to maybe supplement their education.

One marketing student noted that having her cooperative education job as a

waitress had made her realize that is not what she wants to do. She is planning to go to

college next year in fashion merchandising. She noted that field trips her marketing class

had taken helped her to clarify her career goals. She said:

> We went to Tech to see their fashion merchandising last year and I saw some
> really interesting things there. I went to New York with our fashion class last
> year and we visited a couple of the companies there.

This student's marketing teacher talked about the field trip to New York and says

the tour of a company's corporate office gives students the opportunity to see the "total

picture" of the company. He noted:

> We do it Friday, Saturday, Sunday--take a group of kids to New York City. We had a tour of Cross Creek Apparel and their corporate offices and that was a lot of fun seeing how they market themselves. [The students] see everything from the distributors down to the retailers.

A teacher at one site noted that taking students to local businesses and industries

for field trips helped them transition to the workplace. He further indicated that having

guest speakers visit the classroom had helped students better understand the workplace .

> We've taken industry trips and we've seen the production side of things. We've been to local retailers who've talked to us. Pizza Plus here in town has had all of my classes up and talked to them about food costs, what goes into making a pizza, and how the price of the pizza has to pay for everything. These have all been good experiences for them. My co-op students are already working, so this is just reinforcement for them. But some of my other students have never worked before and they get to see people working and what it takes to work, things that are involved with that. They hear about food costs, the costs of labor, how important that is, and how employers have to keep an eye on that. And speakers we have had talk about career advancement with their organization, what you need to be successful in their fields. For example, making good grades in school and studying and being dependable.

Another teacher also spoke about the value of students being exposed to the

workplace through field trips and guest speakers. He noted,

> We have guest speakers. For example, an insurance agent or a business person that maybe just started a business to talk about entrepreneurship. And we have a banker that comes in and talks about saving and investing.

A workplace supervisor also felt that business and industry tours provided an opportunity for students to "see first-hand" workplace activities. He further believes that guest speakers often provide insight for students about what is going on in their community. He noted,

> Touring is a good thing and we've done it for the last two years. They've [students] gotten a complete tour of one of our facilities. I'm sure that's helped because they can get out there and see first hand what it is, but that's still not as good as working in it, but it does help. Some of the people in my position around town serve as guest speakers. We come in and seems like some of the kids listen when it's someone from a particular place of business, especially if it's one they're interested in, or if they're thinking "well I might want to go into that field." And again it reinforces things that the teacher has already told them and it gives them some insight into some things that they might not have learned in school.

A student at one site also noted that career days at school, where local employers come to the school and set up information booths, and field trips to local industries had helped him transition to the workplace. He noted:

> The career days we've had helped me to relate to work. We also went on field trips to different businesses. We visited a furniture factory awhile back and were shown how the machines operated and got a tour of the building.

A student, speaking about the value of having employers serve as guest speakers to students, noted "They better prepare you about the outlook that employers have for students coming into the workplace and prepare you for what to expect there."

A workplace supervisor said that the teacher-coordinator helped students transition to the workplace by taking them on field trips and letting them see first-hand what is going on in the workplace. She said,

> By taking them on field trips, taking them out to the places of business and letting them see first-hand what goes on in the workplace. I think that's been a big help to them.

In addition to field trips and guest speakers, students learned about organizational systems through classroom activities. One teacher noted that he helped students to transition to the workplace by including activities about career development in his curriculum. He stated,

> We talk about the steps of career development and we do a mock business. We divide into teams and we just take them step by step through this--going into business for yourself project that we've developed. And, of course, I have videos and activities on those subjects.

Teachers, students, and workplace supervisors at three sites noted that a linking activity between the school and the workplace was an employer appreciation banquet held in the spring of each year at their respective schools. Students enrolled in cooperative education, their teacher-coordinators, their parents, and their workplace supervisors were invited to a local restaurant for an awards ceremony. Interviewees noted that students seeing their employers in a social setting often changed their attitudes toward their workplace supervisor. A teacher at one site noted,

> I think it [the banquet] is very beneficial. You see such a difference in the students after they've sat down and had a meal in a social setting with an employer versus just looking at the employer as a boss. I always get comments

when they come back after that banquet saying, "you know, my boss is not quite the monster I thought he was."

One teacher who had been a cooperative education advisor for two years talked about a program she had initiated for students and business representatives that she considered to be a real linkage between school and work. She said,

> Two years ago we started a program called BASK, "Business and Students Konnect." That was when I first took over the co-op program and at that time the enrollment was down to seven students. So as a way to build the program back up and recruit employers we held a banquet called BASK. We invited several employers to the banquet to tell them about the program. From that, the number of employers increased and the number of students enrolled in the program increased.

One student's employer had just received the "Employer of the Year" award at the annual banquet. The teacher explained the process for this honor.

> The students had to write a letter to me recommending their employer to be "employer of the year" and the reasons for it. And I invited the employers to write a letter nominating their student as "student of the year" if they wanted to. I used independent judges, I didn't read them. I got people from outside, who knew nothing about the co-op program, and they read the letters and based the awards on what they read.

Technology

Technology includes selecting equipment and tools, applying technology to specific tasks, and maintaining and troubleshooting technologies. Students learned at school to apply technology to specific work-based tasks. Computer skills were cited by interviewees at every site as one of the most important skills that students learn at school that prepare them for the workplace. Using computers to process information is also

included in the "information" theme. It was often difficult to distinguish from responses whether the interviewee was discussing processing information or the use of technology. However, since technology is used to process the information, most responses regarding school-based learning of computer skills as they relate to work-based experiences are included in this category of technology. Two teachers elaborated on the types of computer skills provided to students at their respective schools that helped prepare them for the workplace.

> Of course we have the computer skills like WordPerfect 6.1. I teach a class called desktop publishing and this gets them to the Pagemaker [software] and laying out of brochures and that type of thing. In fact, I'm integrating my desktop publishing with the journalism class and we're working together to put our newspaper together for the school. Students will come to me every week or so and say "hey, I had to do labels yesterday, [at work] and it's a good thing we did that because I wouldn't have known how to do that."

> Every student that comes to COE [Cooperative Education] has had keyboarding. From that, they are building either with advanced keyboarding or WordPerfect. We're teaching them Windows 95 and Microsoft Office, and a lot of them have taken WordPerfect and Lotus.

A student noted that a teacher had really helped her with her computer skills:

> . . . and I love my teachers. My office teacher, she's really sweet, she helped me with all the programs. I had a little bit of problem at first because I'd never worked on the computer before and she helped me with that.

Another student noted, "just the little bit of computer work that we are doing is helping me." She added, "just using the computer and getting more familiar with the programs." She continued:

Just to be able to go in when the secretary's away and not feel scared, not feel like I'm going to mess up something. It makes me feel better to know that one of the executives can bring a letter down and I can type it and I know how to do it because I've been prepared.

One student was very pleased that she had learned Windows 95 at school before she had gotten Windows 95 at work. She felt that this placed her at an advantage and she was able to help others at work. This was a real boost to her self-esteem. She said,

A couple of months ago we got Word for Windows 95 here at school on new computers. And just a month ago I got Windows 95 at work, so that put me at another advantage. I've been showing everyone at work how to operate it, because they've been lost with the new Windows 95. I'm always helping someone with their computer at work, so that's made me feel good. They have learning lunch sessions, but I've never got to attend one of those because they're from 11 to 12 and I don't get off school until 12. I work from 1 to 5. They are offering Power Point classes now at work and that's on Windows 95, but we've went through Power Point already in class.

This student's workplace supervisor noted that the student was "very proficient on a PC and utilizing various types of software and systems." The supervisor stated further that "some of our various units had Windows 95 already, but she did have it at school before we actually got it installed on her PC here and she's always willing to share that information."

Another student indicated that some training in trouble-shooting technologies had been provided as part of her school-based learning activities. She noted,

In introduction to business, we did a lot with the computer like how to deal with computers if something goes wrong--how to find out what's wrong and to fix it.

A business teacher said that computer skills were the most important thing

students learned at school that helped them transition to the workplace.

> The computer skills are the most important because if the students can learn the basic concepts of what to do, then when they go out to the workplace it's very easy for employers to train them in the program they're using. If they can find their way around the computer to start with, then whatever program the workplace happens to be using, it's easier. It's an easier transition for them than if they haven't had any computer at all and they have to start from scratch.

> Another teacher agreed with this idea, she said,

> I think as long as we teach them **a** word processing or **an** accounting package that it wouldn't take them long to transfer to the particular one that their company used.

A student noted that her accounting classes where she worked on spreadsheets

had helped her the most on the job since she worked in the accounting department. She

said,

> My accounting class really did help me because I work in the accounting office. Sometimes I have to do spreadsheets in the office and [the teacher] really helps out. She gave me an Excel book and let me work on the computer. My desktop [publishing instruction] too because we've learned how to use scanners. Just being computer literate has helped me.

This student's workplace supervisor and teacher both agreed that her accounting

classes and her computer skills helped her in the workplace. The workplace supervisor

said, "she's had accounting and she's very computer literate." The teacher said "her

accounting class prepared her and she's had years of computer classes." She continued,

> I would say that both of these were equal because she was putting payroll information into the computer. So basically she had to understand payroll and she

also had to be able to use the computer and be confident that she knew how to use it too.

A workplace supervisor noted that even though the company has its own software, the student's knowledge of computers had helped her in the workplace. She said,

> She talks about doing the computers all the time and she has learned computer skills at school. Then she comes in here and we have our computer set on a certain program and she can't do some of the things she does at school, but with learning it at school and being familiar with the computer, just being knowledgeable has made a big difference.

Another workplace supervisor said that the school was very sensitive to the changing needs of the workplace and provided students a variety of computer software training opportunities.

> I'm sure I don't know everything that goes on in the school but I think the teachers really stress a lot of computer programs that students are going to be needing when they go to work. And the teachers work closely with the businesses to find out what they want. I know they just switched over from WordPerfect to Microsoft Office because a lot of businesses are requesting that.

A business teacher said that students are exposed to as many software packages as possible to help them be more marketable in the workplace. He said,

> We try to teach all the major software packages out there so they have had access to all of them, or as many as possible.

Job Interviews, Resumes, Job Applications

Although not included in the SCANS competencies and foundational skills, another category emerged. Many interviewees commented on the importance of students

learning to prepare proper resumes, learning about job interviews and the types of

questions that are asked during job interviews, and learning to complete job applications.

Developing these competencies was noted as necessary for students to make the

connection between school and work. One teacher said that he teaches about

employment in three phases: one, getting the job; two, maintaining the job; and three,

turning the job into a career.   Related to getting the job, another teacher noted:

> Job interviews is one [topic] I probably milk to death, but it is very important and
> there are students that do not know how to properly interview and do not know
> how to properly fill out an application form. They don't know what to say when
> the time comes to talk about money or things of that issue.

Another teacher noted that she had a program with the advisory board where

board members came to the school and participated in mock interviews with the students.

Additionally, a representative from the local college was invited to talk to students about

interviews and resume writing. The students at this site prepared resumes for the annual

career fair.

Another teacher indicated that she provided her class information about job

interview preparation and "the proper attire for interviews, how to shake hands properly,

and how to approach someone when you are going for an interview." This teacher also

incorporated resume writing and job interview skills in her computer classes. She stated,

> In Microsoft Office there's a resume wizard, so the students use the wizard so
> they can see the different ways of setting up a resume. I give them a list of
> questions they could be asked [in a job interview] and ask them to formulate on
> the computer how they would answer it in a sentence or two.

Another teacher noted,

We do things like mock interviews, I have them fill out applications, and we talk about each question and how they answered it versus how they might have answered it. We talk about how to dress, how to introduce yourself and that's in phase one of the curriculum, how to get a job.

A supervisor noted that she had talked with the student enrolled in cooperative education about the importance of presentation of self and she knew that the teacher-coordinator has also stressed this in class. She commented:

I have talked a lot, particularly about, presentation of self. I know that her COE coordinator has talked a lot with her about that, particularly as she is anticipating going on job interviews.

A student commented on learning to do resumes and how this helped her when she went for an interview.

Setting up resumes was a big help to me. I really didn't understand how to do that, what all it involved. It really helped when I went on job interviews. When they say, "what's your work experience," it's all right there in front of you and it was a really nice outline to go by.

This student noted that she learned to do resumes in her word processing class. She said:

We learned it [resumes] in our word processing class. They [the teachers] gave us a bunch of handouts and we got the paper and looked for a job that we thought would be interesting and we filled out the resume to suit that job. We just learned a checklist of stuff that we should put on there, like stuff we'd been involved in at school and was important to us, just how to list our work experience, and also what not to put on a resume.

Another student said that before she went for her interview with the cooperative

employer, her teacher had given her some guidelines for the interview.

> Well before I went, she [the teacher] gave us different guidelines like eye contact
> when you talk with someone, and that was pretty much with the interview. She
> also gave us all those guidelines to study.

Another student noted that through Future Business Leaders of America (FBLA)

activities she had learned about "proper business attire when you go for an interview and

what to wear basically everyday for work."

A business teacher said she spends a lot of time on teaching students how to do

resumes, cover letters, interviews and thank-you letters. As FBLA advisor, she also

incorporates some of these activities in interesting ways. She noted,

> I do a unit on entering the workforce and the students do resumes, letters of
> application, application forms, and we do mock interviews, and thank-you letters.
> I do a little unit "how to lose your job without really trying," and then how to exit
> your job with style, the resignation. In FBLA [Future Business Leaders of
> America] every month, we have some type of activity that relates to something
> you might find on the job. For example this year in February, we had a program
> on confidentiality in the workplace. Then students drew names for secret pals for
> Valentine's day, and they had to keep it confidential or a secret until Valentine
> Friday. Then in October we did a program on proper business attire. We had
> some students come dressed in Halloween costumes, one was a farmer with those
> clothes on and another one was a little princess or fairy godmother. Then we had
> two students come in dressed in proper business attire. The female wore a
> business suit, and the male came in a suit and shirt and tie. So we used that as a
> way of how to dress for the interview.
>
> Another teacher noted that business students were required to do units on job

preparation. She said,

> Well, probably the first thing we do is the job interview and the papers that they
> have to fill out in order to be employed, the payroll papers that are necessary.
> They are required to do those types of units here at school.

A student at one site said she had compiled a portfolio in her business classes to take with her to interviews.

> In office procedures we did a reference manual that had different types of reports and a resume and things like that and we put them in binders and made them really nice, so if we go on an interview we can take them along with us--a portfolio.

A business teacher also talked about the value of students compiling a portfolio to take with them to interviews. He noted,

> Students have to keep a full portfolio of everything they do so they can take that with them when they go for a job interview. It gives them an edge. They can show examples of everything they have done in classes, all of the different styles of letters and memos and resumes and anything they have done in school they can keep in that portfolio--honors and awards and that type thing. I think that is one of the biggest things that has helped them to transition to the workplace. It seems like everybody is wanting people with computer skills now and I think the more you have and the more you can prove with that portfolio, there are so many people out there looking for jobs, if you've got that little edge to show them right off the bat, then I think your chances are a lot better.

A workplace supervisor at one site said she had been invited to participate in mock interviews at the high school. A teacher at another site said she invites people from the workplace to come in and help students with their job preparation skills. She said,

> We did a seminar in which we brought in ten personnel directors from all of the top companies and industries in our area. We had an all day seminar where they taught the students how to interview, how to fill out applications, questions to ask, and how to dress. We asked that all vocational juniors and seniors be allowed to participate in this, so we really did a seminar for the whole vocational area, rather than just our department.

Research question two asked: What work-based experiences do students, teachers, and workplace supervisors perceive as providing context to students', enrolled in cooperative education, school-based learning experiences?

To answer research question two, each interviewee was asked to identify five specific work-based learning experiences the student had in the cooperative education job placement that related to the student's school learning experiences. From this listing of work-based activities provided by the interviewee, each interviewee was then asked to select one that had the greatest impact on the student's school-based learning experiences. Examination of work-based experiences mentioned by interviewees that helped students connect work with school resulted in the formation of themes that fit within the framework of the five competencies and the three foundational skills identified by the SCANS (1991) report.

Foundational Skills

The SCANS report identifies foundational skills necessary for workers that include basic skills, thinking skills, and personal qualities.

Basic Skills

Basic skills include reading, writing, arithmetic and mathematics, speaking, and listening. A student at one site said work experience "gives me something to write about in composition. There's always something going on at work." Some things that she had

written about were "well customers, disgruntled customers" and she wrote a play about her cooperative education job for her composition class.

Speaking and listening skills were listed by supervisors, students, and teachers as something that students had learned on their job that helped them in their school-based learning. One employer said of a student "she is much more assertive now."

One supervisor noted that as a result of the student's workplace experience, her oral communication skills had improved. He said,

> This last year especially, she's learned to communicate a lot better about her stresses with certain things that would bother her and learned how to handle certain problems.

A teacher found that the student enrolled in cooperative education had gained oral communication skills in the workplace that had helped her in her school experiences.

> I'm sure communication, she's a very good communicator. She can talk to almost anybody and is very open and that's very important in an office situation. I think it helps her maybe to get along with her teachers, her peers. It has matured her and petty things at school may not be as important as they used to be.

A workplace supervisor noted that the most important thing the student had learned was the ability to "speak up." She commented:

> I think the most important thing was learning to speak up, assertiveness. She definitely has gotten stronger in her confidence level. She is extremely good at what she does and she's very dependable. When you give her something to do, you know she is going to get it done, or if she doesn't get it done, she's going to let you know.

A teacher said that probably the thing the student enrolled in cooperative education had gained most from her experience in the workplace was oral communication skills, which included speaking and listening. He noted,

> Her oral communication skills have been enhanced because she has to listen to a variety of different managers and she has to do things the way that each manager wants them done. I've heard a remark, "you know one wants it one way and one wants it another," so I think she has adapted. I guess that's interpretation skills of orders, how to take orders. And she has to communicate by phone and in person.

This teacher noted that learning to listen and being able to communicate effectively in the workplace transferred to school-based learning in the following way.

> In her English classes they're talking about oral communications, and in this class we have a whole unit on on-the-job kind of communication skills. We talk about the communications breakdown and listening skills, so she has a direct theory to work from my class and I know they talk about that in English.

A workplace supervisor at one site noted that average students at the high school "don't speak the way we want them to and are not as polite as we require them to be." He believes that the student's speaking skills have been improved as a result of being in the workplace. He continued,

> The one thing that we require the student to do is everybody is "yes ma'am, no ma'am, yes sir, no sir." If they can't do that, they can't work here and every time they say something that is incorrect we correct them. We don't use "ain't" and we don't use "don't got none" and all the things like these kids use. And one little girl we had was from way back in the sticks and could hardly get out a sentence correctly. When she left, she had improved 200%.

The teacher-coordinator at this site also said that the student's "communication skills have increased tremendously" as a result of being on the job. She described how the

student's increased written and oral communication skills helped her in her school-based

learning activities.

> The employer demands perfection in his letters since naturally they can't go out
> unless they're mailable. He had her to keep doing things over and over and over
> again. And so now she's more careful at school with her punctuation, her
> grammar rules, her spelling, her flow of thoughts in writing say a paper for
> English, a term paper. If I had read a term paper last year and then read one this
> year it would be a big improvement in her writing and in her speaking, because he
> demands perfection from her. He has worked with her and of course I have
> worked with her too, constantly working on this "yeah" and "uh-huh." He will
> not let her say that at work. She had to learn very quickly to say "yes, no," to
> clean up her slang.

Another workplace supervisor said that the student enrolled in cooperative

education had learned oral communication skills on the job and had become more

outspoken. She noted,

> She [the student] used to be an extremely quiet person and she's not anymore. She
> speaks her mind and that has to do with working with me and with the customers.
> To me, that has improved her personality because when she came she was so
> quiet and reserved and she has learned to speak out more.

This supervisor said that improved speaking skills helps the student at school

because she will speak up and ask questions where she probably wouldn't have before.

She noted,

> Going back to the classroom, when you are more outspoken you learn more
> because you are not afraid to ask that extra question, so it makes a difference in
> the student's learning because she is willing to question more.

A teacher noted among the benefits the student gained from being in the work environment and gaining work experience was increased oral communication skills. She said,

> Of course, she's improved on her business skills, punctuality skills, her interpersonal skills, her communication skills have improved, probably her patience has improved a lot. Working with people of different personalities, different backgrounds, she's more open. She works better than before. She used to cling to one certain group of kids at school and because of having to deal with different types of people at work and with the public, she's brought that back to improve on in that she's more open with other kids. I mean now she works with anyone. She has definitely opened up more, she talks more. She's lost that shyness she used to have.

Thinking Skills

Thinking skills involve thinking creatively, making decisions, solving problems, seeing things in the mind's eye, knowing how to learn, and reasoning. The interviewees noted that critical-thinking skills were developed by students as a result of working in a cooperative education job. They indicated that these critical-thinking skills would definitely help the student in their school-based experiences. One employer said, "she has actually tried to think about what would be involved as far as her job is concerned and pleasing the customer." When asked how this would help the student in school-based learning the employer noted,

> She listens and she decides whether or not it's something she can use. So, I can tell by what she's said about a few things like English class or something else or something the teacher has said, she has actually thought it through and decided whether she believed it or not.

A teacher at one site noted that the cooperative education experience has helped the student "to think on her feet" and increased her ability to "make decisions." He felt increased decision-making ability would help the student in all of her school-based activities.

One student noted that in the workplace "you are expected to act like an adult." He continued,

> I have learned to work through problems on the production line. I've had to pick up a lot of things on my own. Sometimes they [the employer] let you work things out. And the guys [other employees] just kind of watch you. I've gained their respect. Now some of them [other employees] come to me when there's a problem.

This student further noted that learning to work through work-related problems had "increased his ability to work through school-based problems" as well. He indicated that learning to problem-solve in the workplace had increased his maturity level and made him a better student.

In addition to these examples, thinking skills are incorporated into other categories including human relation skills and speaking and listening skills.

Personal Qualities

Personal qualities involve individual responsibility, self-esteem, sociability, self-management, and integrity. Personal qualities were often described as "work ethics" by

interviewees. Work-ethics skills described by interviewees as work-based learning that

helped students in school-based activities include attendance, punctuality, responsibility,

and dependability.

Attendance and Punctuality.   One supervisor noted that she had talked with the

student "about attendance, how important it is, and how the workplace and school's the

same, you need to be there to be effective at what you're doing." Another supervisor

talked about the importance of the student coming to work and having time off scheduled

in advance.

> We have talked about attendance. She's not really had an attendance problem, but
> there's been some issues where we've had to juggle her time here with some things
> that she had going on at school. Basically, we had the conversation about that and
> I told her that I'm 100%, I understand her school comes first, but we often had to
> go through just explaining that we were depending on her to be here as well. And
> if she had something to do, to get it pre-approved. So we really talked a lot about
> that and how much we rely on her but at the same time how important her school
> work is.

Through this experience, the workplace supervisor noted that the student had

learned the importance of dependability and attendance as well as "notifying us ahead of

time and making plans if she needed time off." This supervisor indicated that learning the

importance of attendance and punctuality at work would help the student to also

cultivate these habits at school.

Responsibility. Working on a job, according to interviewees, provides the students

with a greater sense of responsibility that carries back to their school-based learning. One

student explained about her work experience:

> It's a lot of work to get done in a short period of time, but it's teaching me a lot of responsibility. A lot of responsibility, I'm pulling from work into school. With so many jobs, we have a lot of deadlines and things that they expect me to do and have to be done before I leave. And that carries over with school, like especially now at the end of the year with getting ready to graduate and I have deadlines for everything.

This student provided an example of a deadline that she had to meet on her job in

which she exemplified responsibility. With responsibility, also came self-esteem for the

student. She was very excited about the part she had played in an office project. She

said,

> Last Friday, it was the biggest project that the office has ever taken on before and they have their plans and their plats, and it's big architectural prints, that they have and required for every single project that they do is to give a certain amount of copies to the town of the place where something is going to be built. We had to make five copies and this plan was 22 pages long. It took me three and a half hours to do the five copies of that plan and I was only supposed to work two hours and they asked me if I could stay over and I didn't mind because it needed to be done and everything wasn't done. Everybody was running around, but we all pulled together more as a team during the deadline. You will stay until you get it done and it's not like you don't want to. It makes you feel good knowing you have accomplished something like that or that you participated in a big project like that. I was really proud of myself. Actually, it was a big project and I had a small part in it, but I felt like I did contribute.

Another student commented that her workplace experience had made her much

more responsible.

> It's made me more responsible, my job has. It's more demanding than my first job which was at Arby's restaurant, a fast-food restaurant. When I went to First

Union, I knew it would be more, but it's more demanding, more responsibility. You have to act more mature, you can't act as you act at school and you have to be on your toes at all times because you never know who can come through the building at any time, and it's much more demanding. I have always been responsible, but my job has made me more responsible.

Another student also noted that having the workplace experience had given her a sense of responsibility. She stated:

It [the job] gave me a lot more responsibility because before I didn't really care. I cared about school but I was more like if I fail, I fail. Then when I got my job, it helped me realize here's what I need to do. It's helped me to get a record attendance at my school and my workplace, before I would always lay out of school for any reason and just try to skip school or something, but when I got my job my attendance really improved.

A workplace supervisor also noted that students learned a sense of responsibility for their own actions through their workplace experience. She provided the following example and explained how this helped the student at school.

Well, here if we make a mistake, we have to pay for it. After paying for it a couple of times, you don't do it any more. And if they [students] would make a mistake on a ticket or something like that, I would make them call the people back and explain to them what they did and how it was right or wrong or what they had to do to fix it. A lot of times they were like, "oh no, you call, I don't want to." But we would make them call, if they made a mistake they had to follow through from start to finish. At first, they would be really mad when they would do it and would sometimes go days without speaking to you. Gradually after they saw that it was their mistake, and your weren't just being mean to them they were like "yeah, man I did do that, didn't I." Then they would go straight to the phone and take care of it and bring it back. You wouldn't even have to tell them to do it, they automatically grabbed the ticket and did it. I can remember when I was in school when you got a bad grade or something, a lot of times you would just think that the teachers were being mean. For instance, if you had to write a paper and got a C or a D and you thought you deserved better, you thought "well the teacher just did that to me because they didn't like me." But now students can see maybe it was their mistake, and maybe they could have done better and they learn from their mistakes.

A teacher at one site noted that personal responsibility was what he considered to be the "best thing" that students will learn through their cooperative education experiences. He noted,

> Probably the best thing that my students learn from this class will be the personal responsibility. In their lifetime they'll be filing their taxes over the telephone and going to the bank over the telephone or over home computers. All of these things are going to be real transitional, that's going to be to relearned every few years. But the personal responsibility, the "heh, I've got myself out, I went to work, and I've done everything that I was supposed to do," that's the one thing that I hope that they'll take away from school and look back on.

A workplace supervisor felt the student had gained a "tremendous amount of responsibility." She went on to say "she will be my assistant manager as soon as she's 18, just a couple of months away." Another workplace supervisor said that the student had learned work ethic skills such as "dependability and responsibility." She cited an example where the student had exemplified a sense of responsibility.

> I remember, we were closing the office early and she stayed on here and kept stuffing envelopes and getting things ready for our health insurance program. She was very responsible.

A teacher said that students learn responsibility by being on the job. He provided this example:

> We had one student who didn't come to school and she didn't even call the employer and tell them she wasn't coming to work. It came close to them having to fire her. We just had to tell her "you can't keep a job this way, if you have a job then you have to show up." She turned into a totally different student, she learned responsibility. It took a little while for her to understand, I think it took the threat of knowing that she was going to lose her job, and now she's just a

totally different person. Sometimes working out in the world can make these kids think, it can be a real eye-opener.

One student's workplace supervisor stated that the student had grown emotionally and mentally and had learned responsibility through dealing with customers. She noted:

> She's grown emotionally, mentally, in being involved one-on-one with customers at the tables, because you really have to read the individual, what he or she wants, and we have to care. She has learned in the back to care about how good the plate looks and she's learned the responsibility of clean-up.

Constructive Criticism. One teacher related that he felt the most important thing the student brought back to school from the worksite was the ability to take constructive criticism:

> I think she's gone through a period where she doesn't understand why she's graded so hard; she takes that very close and very personally. And we all take criticism personally, you know there's not any doubt in my mind about that. She took it to the point where it was destructive. It was just ways to improve and that's been the hardest, the biggest learning experience that [the student] has taken from the worksite into the classroom is the constructive criticism--how she doesn't need to take it so destructively.

When the teacher was asked how he helped the student to see the criticism in a constructive manner he responded, "just by sitting down with her and her manager and talking things out." The teacher noted that just sitting down and talking with her had helped her to not take things so personally. He further noted that this experience helps her in her school:

> I think she can deal with other adult teachers because of the worksite [experiences] with her manager she knows how to get along with adults. She has learned

maturity, definitely maturity; communication, if she doesn't understand things she will ask. She's not one of those people who gets intimidated around adults and I think those are good qualities to have. Expectations from an adult level, she places high expectations on herself because of her work situation, which I think is OK.

At another site, the workplace supervisor found that one of the most important things the student learned at work was the ability to take criticism. She stated,

A lot of times like the younger ones, you say something to them, they take offense. They learn to take more criticism, they learn to take more compliments, I think it [the cooperative education job] builds them a better character.

Respect. One supervisor noted that one thing the student had learned on the job that would help her link to school was "listening to authority." She noted:

A lot of kids in school do not relate to authority anymore. They have actually learned through the media of entertainment, disrespect. We're all living in the me, myself, and I syndrome. So by actually being in the workforce one-on-one individually, I think that she has learned something about respect for authority.

The employer noted that learning respect for authority on the job would help the student in school. The employer said, "she learns to respect the person who's in the classroom at the head of it."

A student at another site developed "a lot of respect for everybody over there [at the worksite]." Another student noted that she had learned respect and responsibility by dealing with customers in the workplace, which she felt helped her in her school-based activities. She said,

. . . dealing with customers, I would say that's closely related with school because you are in school and you deal not only with your teachers but learn how to do

what they say. You know you work under them like you do with your manager at work. It's like respecting authority and respecting your peers.

A student at another site said that just being in the workplace and learning about

work gave him a respect for teachers and the job they do.

> You give them [teachers] a lot more respect for the job they're doing. After you've been out here giving forty hours and the teacher is trying to tell you something, you learn how it feels to put in 40 hours and then you really listen when nobody else cares and all the other students are like "nah, she don't know what she's talking about," you start giving teachers a lot more respect.

Business Etiquette. One student found that through her cooperative job placement

she had learned "manners." She noted,

> Like the phone, I've had to learn to talk to everybody and some of them have weird accents and I have to really listen to them. And when visitors come in, I have to call the people that they're coming to visit and tell them, then I have to talk to them. I have to really watch my manners and things like that. I've learned manners.

This student noted that this helped her in school because "it's made me more

polite." Another student also said that through dealing with customers she had gained a

positive attitude. This helped her at school through gaining patience. She discussed her

experience as follows:

> It helped me to have more patience. I mean not to get impatient with things. It helps me to have more patience with people and to be more tolerant. I think I am a very impatient person, so it helps a lot there.

This student's workplace supervisor also noted that she had gained in business

etiquette.

When she came here she was an average polite child, now she's an extremely polite child. We emphasize that because we feel that the first contact the customer has with us is the person that answers the phone and we harp on it every single day so it's drilled into her [the student's] head.

Competencies

In addition to the foundational skills identified in the SCANS report are the five competencies that workers can productively use. The five competencies are resources, interpersonal skills, information, systems, and technology. Interviewee responses regarding work-based learning experiences that help students in their school experiences are described in each of these categories.

Resources

Resources includes the allocation of time, money, materials, space, and staff. As noted in question one, since students are in entry-level positions, this category was not mentioned by interviewees except for time management. Students, teachers, and workplace supervisors each felt that students enrolled in cooperative education 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."

A teacher felt that work experience provided students opportunities to assume

leadership roles in the workplace and to feel good about school. He noted,

> I've had kids who have been managers, I've had kids that have gotten involved
> with training. They have been so good at what they did that the employers, even
> though some businesses won't let you be a manager or assistant manager until
> you're a certain age; but they'll let some of my kids get involved with actually
> training employees which goes back to leadership skills. I think the students get
> reinforced when they come back here and they see their evaluation that they got
> from their employers that gives them some really positive reinforcement and
> makes them feel good. When they get a raise for doing a good job that kind of
> reinforces things we've talked about at school that they have exhibited at work--
> being on time, having good initiative, being dependable, taking pride in what you
> do, understanding what work is all about. I've had "Employees of the Month"
> and obviously to get those types of awards they're having to use a lot of different
> skills.

Interpersonal Skills

Interpersonal skills include working on teams, teaching others, serving customers,

leading, negotiating, and working well with people from culturally diverse backgrounds.

A student at one site said that working as part of a team was one of the primary things

she had learned in her cooperative work experience that she could link back to the school.

> If there's a problem, it's not like I have to fear to go to somebody. If there's
> something I'm not going to get done, I need some help and everybody's going to
> be willing to help me. It's a real team over there, everybody just works really well
> together and pushes to get things done on time.

A supervisor at another site noted that teamwork was probably the one thing the student had learned most on the job that would help her in her school activities. She noted:

> Teamwork, I would have to say. There are besides [the student] on that team there are probably about 15 to 20 other associates. The work is primarily work that has to be done every day; therefore, everybody has to take an equal share and pull an equal load. [The student] being part-time after school makes it even more important that she do her share when she's here, because we are basically depending on her from a part-time standpoint. I think one of the things she struggled with at first was she wasn't accustomed to the independence that she had here at the workplace. I think she felt like she needed somebody telling her what to do all the time and giving her specific duties. So she would come in and say "well, what am I supposed to do, what do you need me to do today." That was good, but she was now working in a team of people where she had something to do everyday and all she had to do was come in and start on it. I, or anyone else on the team, didn't need to say, "you need to do this." The only time there would be a change is if we had two or three other people out and we had something more important that needed to be done. Then when the student would come in we would say, "we need you to pull in on this today." But that was a transition for her, just having that independence and having to work on her own.

Another workplace supervisor said that the student learned teamwork in the cooperative education job experience. He felt that teamwork could help the student relate to school-based learning experiences. He noted,

> They [students] learn to work with other folks to achieve a common goal, they learn teamwork, that they all have to work together to get the job out and they have to work together. And best I remember, when I was in school we had some projects that we had to function as a team. When I was in marketing we had to do a team project where one person had one responsibility and one another, but if one dropped the ball then the whole team failed. I think that's the same way it is in the workplace, if one person drops the ball, then the whole team is going to fail. As students get higher up in school I think it will help them a lot to realize that they're not just responsible for self but other people depend on them too.

Information

Information is acquiring and evaluating data, organizing and maintaining files, interpreting and communicating, and using computers to process information. A student at one site revealed that because of her filing skills, learned at her job, she did not have to do the unit on filing at school. Another student noted that she had learned filing at work. She said, "I didn't realize all there was to filing before I got my job. I thought you just had to know your ABCs, but I've found there's a lot more to it." She related her work-based learning to school-based learning. She said, "when we had filing in office administration, I already knew it because I'd been doing it at work."

Students noted that they had been provided learning opportunities at work that helped them acquire and process information. One student noted that she had learned about the various aspects of banking.

> I've learned a lot about banking, not exactly about the money banking but about dealing with mortgages and titles and releasing them and the filing system inside the bank. We have different classes [at work] about the mortgage release, about what mortgages are, and the E-mail system, and things like that.

This student also said that her work-based learning helped her with her school-based learning, "especially in office administration."

Using computers to process information was mentioned by interviewees as a skill that students had learned at the workplace. Workplace supervisors at three sites noted that although the students enrolled in cooperative education had computer skills when

99

they came to the workplace, the students had to learn job-related software. One

supervisor spoke of how using computers in the workplace would help students in their

school-based activities.

> Even though we have a specific software [package], I feel learning how
> transactions are processed on it will help [the student] relate that back to school.
> Also, because she uses the computer here all the time, I'm sure she's more
> confident in her computer classes.

Systems

This category includes understanding social, organization, and technological

systems, monitoring and correcting performance, and designing or improving systems.

Students, teachers, and workplace supervisors all emphasized that students gain valuable

knowledge about organizational systems from being in the workplace and learning about

the world of work. One teacher said,

> I think there's a lot to be said for things like punctuality, work ethics, and
> attitudes. I mean no matter what kind of job they have, and a lot of these jobs are
> entry level where they're working as a file clerk position, but I think they are
> learning what it is like in the workplace. They are being treated as adults, they are
> being expected to be there on time, they're expected to work until the job is done
> and it's done correctly, so I think those are all valuable things they are learning as
> part of their job.

She explained that these valuable skills that students learn through work-based

experiences will help them to be better students. She said,

> I can see a change in attitudes toward their school-work. They see the importance
> of doing a good job at school and not just trying to get by.

One student's workplace supervisor also said that learning about the world of

work helped the student in school-based learning because work "broadens her horizons

and her knowledge base is increased." This student also said that being in the workplace

was a "learning experience." She noted:

> I'm learning more about what they're doing, they're civil engineers and I knew
> nothing about what that was--it's a learning experience for me.

Another student noted just being on the job helped him to understand the

workplace and helped him to grow as an individual. He stated,

> It [the job] teaches you how the work changes everyday and how to become more
> advanced in the job. Everybody's attitude is a lot better after you've been there 4
> or 5 months, you learn to cope with everybody else. I can look back at the first of
> this year and see how I've grown.

When asked how his work-based experiences helped him in his school-based

learning activities, this student replied,

> Well, after you've been in the factory you can handle just about anything.
> Factory is pretty much hard work. It makes you feel, once you've been in the
> factory you've got a positive attitude pretty much about everything and you can
> deal with all your friends and how everybody always argues trying to get fights
> started and you can just deal with it easier instead of flying off with your temper.

A teacher at one site explained an incident where a student had two cooperative

jobs during the semester and that from having these experiences, she had learned about the

world of work and about her behavior at school. She noted:

> She [a student] started out in one job and now she's in another job. I think that
> especially for her, she's the kind of girl that wants things to always go her way
> and sort of whines a little bit at times. But I think making the transition from that
> first job, and not that I'm saying that the reason she lost the job was her fault by
> any means, but I think it made her realize that there's a big give and take there.
> That things are not always going to be her way and perfect on the job, and that a

lot of times you might as well keep your mouth shut about a lot of things and not whine about things. I think that has helped her a lot.

A student at one site noted that having a cooperative education job helps students to make decisions about their future. He said,

> If you're in a cooperative class like this, you get the hands-on experience of working before you even really graduate and it shows you if you want to go ahead. It'll get you to change your mind if you want to be a worker all the rest of your life or if you want to go on to college. It shows you what you want to do.

A teacher at one site said that just the work experience the students were taking with them helped them to be more socially responsible. He noted,

> When students look back on what they're doing ten years or five years down the road, look back on their cooperative experience as the place where they got that foundation, not so much the skills and the knowledge, but to take what they got out there as building blocks for social responsibility. So that personal responsibility thing and I think they get a lot of confidence.

A workplace supervisor also noted that students gain maturity and confidence just from being in the workplace. This, of course, transfers back to their school work. He noted,

> When they get out, everybody hears that expression, in the "real world," when they get out into the workplace, they are working side by side with folks that are working full-time--you know, with folks that are working for a living. They get a good taste of what work means. I think that helps them to be able to see that what their teachers have been telling them is the fact, the way it is, it's not just a snow job. They get out there and they say, "well, gosh this is just the way [the teacher] said, that's the way it works and it really is important that I be here everyday and work hard." I think that helps them with their school. I think it helps them to be more responsible. They seem to grasp some confidence as they work and go to school at the same time and I think they can bring that back to the school and it makes them better, a more confident, more mature person.

Another workplace supervisor also felt that any work experience made a positive impact on students. He stated,

> Well, I think just learning, understanding how businesses operate and the exposure that they get to a workplace in itself, whether it's flipping hamburgers at one of the local restaurants here or whether it's working in an office situation. The cooperative students don't all work in offices, they work in a variety of places. There's a guy working down here at the service station pumping gas and changing oil and that type of thing. He's going to get a real good sense of what's involved in operating that business, the same thing with people over at the McDonalds or working here. They get a much better sense of what all goes on in the area.

Being in the workplace helped the student to better cope with school situations in the following manner, according to one workplace supervisor:

> I think being in the workplace would obviously help them plan their work better, it would help them to deal with the unexpected situation that may come up and to know or to have the confidence to say, "well I worked through this situation at work and I'm not going to let this situation at school buffalo me." The student will be a lot more disciplined. They learn confidence, they say "hey, I can do that." It's kind of like riding a bicycle, once those training wheels come off and you look around and daddy's no longer got a hold of the seat and you're actually pedaling that bicycle, that self-confidence just grows.

A teacher talked about the benefits of work experience for her student enrolled in cooperative education. She said,

> When she first started working she was very quiet and very shy and I feel like that she has sort of come out of her shell. She's able to meet people now and interact more, so I think that has been her best area of development. I always thought she was capable of doing the tasks that they wanted her to do, so I don't think she would have any problem with that. She has matured.

A student said that work experience had helped her with her "people skills," time management skills, office equipment skills, and had built her confidence.

> Well it helps you with your people skills, just being around people all the time and having to talk to your supervisor. This helps me with communicating at school. I have had to manage my time. I got to use the shredder, I learned how to fax things, I had to fax a lot, and dealing with people, people skills. I learned how to use the stamp machines and wrap packages, When you are out there and you've making money yourself, you kind of get that little self-esteem booster. I think that; plus when you do a good job on something and they tell you, it gives your confidence a boost.

A workplace supervisor said that being on the job helped the student with organizational skills.

> I guess juggling several different tasks at work and trying to meet deadlines, all help with organizational skills. And she would use that in order to be a good student.

A teacher also commented on the benefits of work experience for the student. He said,

> I think it has helped the student to be able to think on her feet, not only in a generic way but in a specific problem-solving way. It has given her a broader base of human relations and I see a great deal of difference in maturity level. Her self-esteem is boosted and she is a more well-rounded human being.

Technology

The category of technology includes selecting equipment and tools, applying technology to specific tasks, and maintaining and troubleshooting technologies. Interviewees stated in question one that students learned basic computer concepts at

school that had helped them connect school with work. Interviewees now stated that

students had learned more about computers in the workplace and that helped them with

their school-based learning. One student noted,

> I knew some computer concepts and of course I learned more when I worked here.
> At school we have what's called either WordPerfect or Microsoft Works and here
> we have AMF software. It's just for insurance agencies, I mean it's just for
> insurance agencies and we have just a plain basic word processing little thing on
> here.

This student's workplace supervisor said that her computer skills had been

"honed" in the workplace. He said,

> Probably her computer usage her has helped her at school. Her computer
> knowledge was pretty good and we've just sharpened it and honed it and she's
> real literate on our computer system and the bulk of that came from the school.
> All our letters are computerized and when my secretary is out she does my
> dictation. I use a tape and she learned to do that, she learned the Dictaphone, and
> she learned to put it on the word processor, and all that is difficult to say the least
> and she's done a real good job.

Additional Experiences Students Could Have at School --Research Question 3

Research question three asks: What additional school-based learning experiences

can students, teachers, and workplace supervisors identify that would help students

enrolled in cooperative education relate their school learning to the workplace?

To address the third research question, interviewees were asked what additional

learning experiences could students have in their high school classes that would make

them better link school with work. As in research questions one and two, responses are

listed as they fit into the framework of the SCANS competencies and foundational skills.

<center>Foundational Skills</center>

The foundational skills identified in the SCANS report include basic skills, thinking skills, and personal qualities.

Basic Skills

Basic skills include reading, writing, arithmetic and mathematics, speaking, and listening. Students, teachers, and workplace supervisors all felt that communication skills were essential for employees in the workplace and noted that students should have more school-based activities relating to both oral and written communication skills.

Speaking and listening. A teacher commented that one of the things that would help students to link school better with work is oral communication skills.

> Communication, just becoming extroverted in this world--assertiveness. Students are still reserved and as you know, this is based on maturity. They keep themselves shelled up, protect themselves. They don't put a foot forward, or say "hey, what do you want me to do next." Eighty percent still wait for someone to tell them what to do.

A workplace supervisor noted that communication skills are necessary "especially in the environment we are working in today, with teams and teamwork being so important." Another supervisor said, "I think communication skills and computer skills are the two main things that students need to know."

A workplace supervisor also noted that presentation skills are "a very, very important part of being comfortable in the workplace." This supervisor further noted, "if

<center>106</center>

you feel comfortable getting up and speaking in front of a group of people, then you're

going to feel comfortable with the people that you work with and sharing information

with them day to day." Another workplace supervisor felt that communication skills are

"tremendously important" for students to learn. He noted,

> I've met with school boards and several teacher organizations and we've talked about how can we better prepare the students to come into the workplace. Communication skills are tremendously important. I think a focus on, not necessarily talking in front of 5,000 people, expressing their ideas, their thoughts, the general communication skills.

A student at one site commented that "learning to deal with people in the public

and learning to speak your mind" are important for students entering the workplace.

While, a workplace supervisor said, "communication skills just cannot be stressed

enough." She went on to say,

> No matter how many skills you have, if you go into an interview and you can't get your point across, that's the impression that they are going to have of you. So you might not get the job even though you are the best qualified person.

A business teacher said he felt that students needed more communication skills

and that it could be worked into all their upper level business classes. He said,

> I think communication skills would probably be the biggest thing and that probably could be worked into any of the upper level business classes, especially the office procedures.

Written communication skills were listed by interviewees as additional learning

activities that students should have in school to help them better link school with work.

A teacher at one site said that writing skills should be emphasized more to prepare

students for the workplace.

> One of my employers called me yesterday, he's a new employer. He told me
> straight up front, if you can't give me someone who can write and have good
> grammar skills don't send them to me. The English teacher told me that they no
> longer teach or emphasize grammar, literature is emphasized more. So I jumped
> on that. I asked the guidance counselor and I said how do we get across to the
> English teachers, doing it tactfully, to emphasize grammar and keep the literature,
> but emphasize grammar. Students have got to know how write, read, and speak
> before we send them out in the world.

A supervisor felt that writing skills were very important for students to know

when they come to the workplace. She said,

> I think [writing is] one of the most valuable things that could be taught, I know
> they have certain courses in college for this, but I think it is needed at a much
> earlier stage, just communication, writing business communications, memos,
> letters, generic form letters, anything like that. I think that is greatly needed
> today. I know so many people that even after college they can't write a simple
> business letter, I mean any type of business letter or conduct a credit history, so I
> think that is definitely needed.

Thinking Skills

Thinking skills include thinking creatively, making decisions, solving problems,

seeing things in the mind's eye, knowing how to learn, and reasoning. While no examples

are included in this category, thinking skills are included in the areas of human relation

skills and communication skills.

Personal Qualities

Personal qualities individual responsibility, self-esteem, sociability, self-management, and integrity.

Work ethics. Personal initiative, responsibility, punctuality, and dependability, are all qualities needed by students, according to interviewees. These attributes were often referred to as "work ethics" by interviewees. A teacher commented on work ethics.

> Initiative, that's something they can still use and being on time. Our students don't know what being a few minutes late means, give them an honest day's work, and things of that nature. My students would rather learn the tricks of the trade instead of learning the trade itself.

A workplace supervisor felt that students needed instruction on how to act and dress in the workplace. He said,

> I think they need some type of course in phone etiquette, proper use of English, just proper way to meet people. This day and time, when you meet people, most people don't even shake hands with you; and these kids, a lot of them, don't make any eye contact. I was at the school a couple of times giving a class about the way you go about interviews and I walked around the room and told a couple of boys that if they were straight A students and the best in the world, I wouldn't hire them because they had an earring in their nose or in their ear. Now if you want to do that as a kid, fine; but in the business world you don't do it. Now Michael Jordan, making zillions of dollars, he can put an earring anywhere he wants to but when you are looking for a job, you don't do that stuff. The average employer is not going to put up with it. Proper attire, shined shoes, clean shirt, pressed pants instead of looking like a bum. You know it's cool in school, but it isn't cool in the workplace, plain and simple as that.

A teacher at one site said "we don't have any business ethics classes in the high schools, or none that I know of for teaching business ethics, other than what the teacher tells the students in the classroom, and I think we need to have a lot more of that done."

A workplace supervisor felt that schools should emphasize work ethics and the value of work. She said,

> Work ethics are very important. I mean just because you are making minimum wage, don't work like you're making minimum wage, be proud of the job you have and work as hard as you can and you're going to go places. I think students need to realize that they may be working at McDonalds right now but they still need to do that job well, because that person is going to be a reference for their next job. So they need to do things they can be proud of no matter what the job is.

Etiquette. A teacher stated that students needed to learn business etiquette and cited an example where students didn't know about formal dining. She said,

> I think we need to add maybe an etiquette class, maybe dining. When we went to Reston for our FBLA [Future Business Leaders of America] state competition, I took six girls and one boy and they had never been away from home or been out in a city environment. Of course, we just ate in fast food places or snacked here and there. Then, on Saturday night I told them they could get all dressed up in their formal clothes, that they were going to wear to the awards program, and we would go to dinner in a nice restaurant. When we got to the restaurant, my husband and I had to explain to them what things were on the menu and about the different forks and utensils that we had, and how to order things. I had prepped them a little bit before we went and how to do tips in restaurants, so I think somewhere in our business curriculum we need to teach this.

Competencies

The five competencies identified in the SCANS report that workers can productively use are resources, interpersonal skills, information, systems, and technology.

Resources

Resources includes allocating time, money, materials, space, and staff. The allocation of resources was not cited by interviewees in the third research question, as additional school-based activities that could be provided to students to help them better relate school with work.

Interpersonal Skills

Interpersonal skills includes working on teams, teaching others, serving customers, leading, negotiating, and working well with people from culturally diverse backgrounds.

The interviewees considered human relations skills an area where the students needed additional training for them to connect school with work. A teacher at one site perceived that students needed to have a human relations course to help them as they transition to the workplace. She said,

> Somewhere in our curriculum, we need to have, I don't know if you want to call it common courtesy or respect, how to get along in difficult situation--human relations, a human relations course.

Interviewees also felt that students needed to learn more about being on teams. One teacher told us of the importance for students to learn that they are members of a team when they are in the worksite, that their job matters.

> One thing I'm thinking particularly of is the team skills of being a team player. You watch ESPN, you go to a school football game, basketball games, you see people develop skills to become a team player. They all affect one another. They [students] don't see that on the worksite. They think of themselves as one individual who is just taking care of one specific job. They don't understand the mission statement of the company, they don't understand the goals or the objectives, they don't understand that they think of themselves as just one individual who's there for a certain amount of time to do one thing and one thing only. For instance, I had a student working at a newspaper. He said, "They say I'm part of a team, but I don't see it. I don't understand how they see it, because all I do is fold newspapers every day." Can you say to yourself, if you weren't there? "Well, they would just get somebody else to do it." Or can you see if your job were eliminated? "Well, I don't know what they would do then." OK, so that's why you're a vital part, because that's how you fit in. And things along that line, because they don't really see or understand how their job affects other peoples' jobs. That's a very hard thing for them.

Information

Information includes acquiring and evaluating data, organizing and maintaining files, interpreting and communicating, and using computers to process information. In the area of information, interviewees felt that students could have additional school-based learning activities in filing, to help them connect school with work.

A student noted that she would like to have had some additional training in filing before she began her cooperative job experience.

> The filing I would like to have had more training in, is alpha filing which is just alphabetical order; but sometimes files are still pretty hard to find, and some of

112

them you just have to memorize where they are. We have invoice files too, and we have to file the packing skips and the invoices and we pull them out to be paid. There's a lot of work to be done before you can pay a bill. I had no idea. You have to make up the files, and then file the alpha files, and then match up packing slips and invoices.

Systems

Systems includes understanding social, organization, and technological systems, monitoring and correcting performance, and designing or improving systems. A number of interviewees noted that more career orientation, exposure to different types of careers, was needed in the schools to help the students better understand organizational systems and connect school with work. Among the different types of career orientation mentioned were guest speakers, tours, and job shadowing. Three teachers said that job shadowing could help students connect school-based learning to the workplace. Following are comments from two teachers:

> I know we have job shadowing here and I don't think a lot of students at our school take advantage of that because it's not presented to them in a way that attracts them]. I know we used to have a teacher who would practically get every senior in the school a place to shadow and I think this year some of them did it, but I bet we didn't have 10. I think it just depends on the person that's over it, but things like that--job shadowing.

> I think getting out in the real world helps students see how things are going and what they have to react to, and how to work with the public. Job shadowing would definitely help students transition to the workplace.

A workplace supervisor felt it would be helpful to students if more business people were used as guest speakers in the classroom. She said,

I think it would probably be helpful if some of the business people could come to the classroom personally more often and discuss the plusses and minuses of going into that type of career. And I think it would be helpful to choose people who started businesses on their own, that would encourage some students to be motivated to be business starters themselves, rather than just followers.

A teacher also said that students should be exposed to more guest speakers to learn about the real world because the students will listen to the business person even though the teacher has said the same thing a hundred times. She said,

When this person from the community comes in and tells them the same thing we've been saying, I see the student's eyes open up and I hear them say "oh, really." It's as if we never said it to them, but when this other person comes in, this "real person," I think they really listen. It's as if you've said it a hundred times and they look at you and say "well, you never said that but Mr. Smith did say it."

Another workplace supervisor said that students needed more "real life" experiences like "case studies and visiting different kinds of businesses. Another supervisor said students needed "real-world" experiences and if they could not do a cooperative job, they should be encouraged to do volunteer work in the community.

Technology

Technology includes selecting equipment and tools, applying technology to specific tasks, and maintaining and troubleshooting technologies. In question one, interviewees noted that students are provided school-based learning activities to learn basic computer concepts that help them with work-based learning. In question two, computer skills were listed as important activities that students learn in the workplace

114

that help them with their school activities. Now, in question three, interviewees state that computer skills are one of the most important learning activities that students can have at school that will help them link school with work.

Students from four sites felt that additional computer classes would have helped them as they transitioned to the workplace. They noted,

> Well, I took half a year of WordPerfect. I never finished it because there was another class that I wanted to take and I had to drop that one to take it. And I wish I had gone through it all.

> The only thing I wish I had done, and I wish I had done it as a freshman and that was take more business classes. I always tell everybody that I'm computer illiterate and I don't know anything about it. I wish I would have spent more time and learned more about the computer.

> I love dealing with the computers and things like that. I wanted to take more of the computer classes but I haven't had a chance to.

> I encourage everybody to take more computer classes because I wish I would have. Everything is going to computers nowadays, everything is moving so quick.

A teacher at one site said he thought students would benefit if they had access to and training in using the Internet.

> If we could get use of the Internet, I'm sure we could use the Internet to pull up a more technical knowledge. The students could get on the Internet and actually contact the Coca-Cola company, or whoever they wanted to talk to, and get information about how that business was started and how much the shares are worth today, whether that would be a good company to work for, and look at their benefits. I'd say on a home page somewhere they could find out things about career advancement.

Telephone Skills. A student noted that having additional school-based training in

telephone skills would have helped her better link school with work.

> The telephone, I could probably have used some help with it before I went to
> work because I still to this day can't transfer a call. I think that could have helped
> me to have had training before I went.

Another student said that she would like to have had more training in telephone

skills.

> I just knew how to use the regular telephone. I was nervous coming in having to
> answer the phone because you have to screen calls sometimes and tell who's
> calling and I was confused. It took me a couple of weeks to figure the phone out.

Another student also indicated that having more training in telephone skills would

have been beneficial.

> Telephone skills, because most jobs have a telephone and most kids are scared to
> death to answer the telephone. I would like to have had more knowledge on that
> before I came here so I would have been better prepared for that.

Filling out Job Applications and Interviewing Skills

As in question one, this category emerged that is not one of the SCANS

competencies or foundational skills. Interviewees felt that students needed school-based

learning activities regarding the preparation of resumes, job applications, and cover letters,

and that students needed to learn proper interviewing skills.

One workplace supervisor felt that students needed more preparation in filling out

a job application. He said,

Having an understanding of how to read and fill out a job application. This is
something that just amazes me when we have an opening or we're going to take
some temporary help. Some of the applications that we get filled out, it's like
where are these people, why didn't somebody help these people.

A workplace supervisor said that students needed to know what to wear and how

to act during an interview.

A lot of them [students], I notice they'll just be wearing their normal cutoff shorts
and sandals when they come in for an interview. Maybe work on their
appearance for interviews. I go by that a lot, because to me, if you come in here
and you look nice for an interview, that's the most important thing, that's to get
in the door. So I figure if you don't even look good for your interview, you won't
work well either. Maybe I shouldn't look at it like that, but when you have to
deal with the public, that's what we go by.

Another workplace supervisor noted that students needed more preparation for

the job interview.

So I think they need more mock interviews, more questions that the employer is
going to ask, talk about dress code, talk about things that are going to be important
to an employer.

Summary

Interviews were used for this study to gather data for the following purposes: (a)

to determine what school-based experiences students enrolled in cooperative education

have had that provided learning in the context needed for their work-based experiences ;

(b) how work-based learning has impacted the students' school-based performance; and

(c) what additional school-based experiences students could be provided to help them

relate their school learning to the workplace. Demographic data sheets were used to

obtain information about the interviewees.

The findings were reported according to each of the three research questions. The

SCANS (1991) foundational skills and competencies served as the organizer for

presenting the findings of the study. Having a cumulative view of data drawn from

different contexts allowed for triangulation by analysis (Silverman, 1993) of where the

data intersect. Discussion of the findings appears in Chapter 5.