

CHAPTER 1

INTRODUCTION

Since the Secretary's Commission on Achieving Necessary Skills (SCANS) issued its report in 1991, vocational educators have begun to reexamine the fundamental paradigm of how students are being prepared to function and to compete in today's global marketplace. Organizations have become "high performance workplaces," and vocational educators are considering methods to prepare students for success in this highly skilled, technological workplace (Kerka, 1995).

The workplace is indeed changing and as vocational educators reexamine the educational process and the changing needs of today's students, Hoerner (1995) states several facts to keep in mind: (a) Twenty-five percent of American youth do not complete high school; (b) only about 22% of today's youth complete a four-year college/university degree, and (c) the composition of the workforce is changing. Hoerner (1995) further notes that a college preparatory track addressing the educational needs of students who aspire to earn a college degree is available for public school students in almost all high schools. However, as the statistics reveal, this route is not suited to the needs of the majority of public high school students. School-to-work programs provide an alternative for the 75% of public school students who are not likely to earn a college degree.

The Bureau of Labor Statistics (1994) reported that in 1950, 20% of the workforce were professional employees, 20% were skilled employees, and 60% were unskilled employees. By the year 2000, 20% of the workforce still will be professional employees, but 15% of the workforce will be unskilled employees and 65% will be skilled workers. Further, *Workforce 2000* (1987) projects that as many as 70% of the jobs in the year 2000 will not require a baccalaureate degree.

The changing workplace demands of the coming century make it imperative that vocational educators be members of a partnership of caring adults--teachers, counselors, administrators, parents, and community--who seek to "guide young adolescents in developing a vision of their life's work" (Wisconsin Department of Public Instruction, 1991, p.11). However, in a Business and Industry Forum conducted by the South Carolina council on Vocational Technical Education (1990), one employer representative from the E. I. DuPont de Nemours and Co. stated that he has to interview 1,500 people for every 10 qualified employees he hires. A skills gap between employer needs and worker skills was also perceived by 69.4% of employers in a North Carolina study (Vasu & Frazier, 1989) who were asked to evaluate the skills possessed by graduates of the state's educational institutions. Of the surveyed employers, 46.1% believe that high school graduates have inadequate reading skills. Other skills reported to be inadequate were writing (51.8%), math (48.2%), thinking (40%), and communication (51.2%).

These statistics reveal that just as educators are confronted with the need to modify educational processes to meet changing workplace needs and ever-changing technologies, employers are faced with the challenge of helping educators prepare qualified workers if they are to succeed in a competitive global market. These modifications of processes made in education and in the workplace have substantive implications for today's and tomorrow's workforce and for students preparing to enter the workplace.

For students to be successful in the workplace, a continuity between school, work, and day-to-day activities is needed for today's ever-changing society. Workers must be prepared for continuous on-the-job growth and improvement. As students enter the working population, they must be able to transfer knowledge from one situation to another. The increased competition for jobs, which has lengthened the school-to-work

transition time of youth, necessitates that high school students be prepared to meet employer demands if they hope to become employed (Lankard, 1994). Emerging technology has impacted the way employees work as well as the skills they need to complete their job tasks (Miles, 1994). Employees must quickly adapt to changing technology and formulate new methods to improve quality, reduce cost, or lessen the time to effectively respond to customers' demands; thus, learning must become an integral part of the work itself. Additionally, schools are being called upon by employers, as in the past, to change society, and also to respond to changes in society (Banks, 1993).

Stern (1994) reports that the transition from school to work for American students often takes a number of years. Before leaving high school, most students have begun to work in part-time jobs after school and during the summer. However, students' jobs are rarely related to what they are studying in school, or to their career choices. Thus, school and work are often viewed by students as separate and sometimes competing activities. Further, student employment is unstable. Students frequently hold jobs for relatively short periods of time, and encounter frequent periods of unemployment.

To enable a greater number of students to find a logical series of jobs leading to a stable career, federal legislation, through the School-to-Work Opportunities Act (1994), has stimulated states and localities to initiate new institutional provisions. Although school-to-work programs vary, most share certain common features including integration of school-based and work-based learning, combined academic and vocational curriculum, and linking of secondary and postsecondary education. These three features are among the required elements of programs supported by the School-to-Work Opportunities Act.

Integration of school-based and work-based learning in school-to-work programs means that students' work is explicitly linked to what they are studying in school. Rather

than competing with each other, school and work are mutually reinforcing. From an extended perspective, using the workplace for educational objectives helps prepare students for lifelong learning. For these reasons, work-based job opportunities should be designed to apply and extend concepts from the students' school-based learning experiences. Correspondingly, the classroom curriculum should incorporate problems arising from the workplace (Stern, 1994).

While using the workplace for educational objectives appears to be a simple concept, it is not as easy to implement as it may sound. The foremost attempt to create this kind of linkage for U.S. high school students up to now has been cooperative education ("co-op"). Approximately 400,000 students each year are enrolled in cooperative education, where they are placed in jobs related to their vocational discipline. Written training plans designate what students are to learn on the job. Their performance is evaluated by the teacher-coordinator of cooperative education in collaboration with the workplace supervisor. Research on high school cooperative education, which has existed in comprehensive high schools since the beginning of this century, indicates that the work-based learning experiences strengthen the connection between school and work in students' minds (Stern, 1994).

Loden and Rosener (1991) state that productivity in the workplace is directly related to the ability to interact in a pluralistic society. Student perceptions have a direct influence on their actions in the workplace. Work related programs offered through school must be relevant and reflect the skills, concepts, and attitudes students need in the workplace. Ryan and Imel (1996) describe student learning from work experiences in the categories of cooperative education, naturally occurring jobs, school-based enterprises, service learning, youth apprenticeships, and vocational education. These innovative educational alternatives can provide occupational experiences and training to better meet

the diverse needs of students and employers, and to smooth the students' transition to the workplace.

The importance of these school-to-work programs has been reinforced by recent research on the value of "situated learning" (Resnik, 1987a, 1987b; Brown, Collins, and Duguid, 1989; Raizen, 1989; Sticht, 1979, 1987). This research has produced new evidence that learning through the work process itself is an effective method for acquiring work-related knowledge. In contrast, what is learned in classrooms, while useful in classrooms, does not always transfer to actual work situations. These studies support the value of learning by doing and demonstrate the lack of correlation between school-taught knowledge and problem-solving in the context of actual production. They also propose that instruction in academic subjects can be strengthened from the kind of realistic orientation that characterizes vocational-technical education (Office of Vocational and Adult Education, 1991).

Problem and Purpose

Employers from business and industry are looking to schools for help in meeting their human resource needs. At the same time, vocational educators are reexamining methods of preparing students for the transition from school to the workplace. Stern (1994) reports that one of the primary goals of students enrolled in America's secondary and postsecondary institutions is productive, sustained success in the world of work. The School-to-Work Opportunities Act (1994) has stimulated a number of approaches to link school-based learning and work-based learning to help students transition to the workplace; unfortunately, the impact of these approaches is not well documented. Cooperative education is the most common available option for work-based learning in the

United States. As detailed in Chapter Two, research reveals that cooperative education provides students with positive work-based learning experiences; yet little is known about how contextual learning impacts school-based and work-based learning. Research has been conducted in school settings and work settings but little is known about how the two link together. Thus, little is known about the ways that situated learning contributes to the linkages between school-based and work-based learning.

To address this concern, the overall purpose of this study was to determine how work-based and school-based experiences of students enrolled in cooperative education are linked. More specifically, details of students' school-based experiences that they, their teacher-coordinators, and their workplace supervisors perceived as linked to the workplace were sought. Additionally, details of students' work-based experiences that they, their teacher-coordinators, and their workplace supervisors perceive as linked to school-based experiences and activities were examined. The students, their teacher-coordinators, and their workplace supervisors were also asked to identify additional school-based activities that would help students transition to the workplace. Personal interviews were conducted with students, teacher-coordinators, and employers to collect critical incidents and information about the incidents. As Karweit (1993) notes, "Schools, by abstracting learning from use in an attempt to promote generalization, create unusable or inaccessible knowledge" (p. 7). Thus, emphasis was on detailing situated learning experiences, where school-based learning and work-based experiences were interlinked.

Research Questions

The research questions of this study address individual students' perceptions, teacher-coordinators' perceptions, and employers' perceptions of instances in students' work experiences that reflect how school-based learning has related to their work-based

performance and how work-based experiences have impacted their school-based performance. This is a qualitative study with individual interviews used to collect the data.

The three research questions follow:

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?

Significance of the Study

Beyond helping students find their first full-time jobs, school-to-work programs are intended to prepare them for future career mobility--not only horizontally, but also vertically. Newer forms of vocational schooling, such as career magnets and career academies, have demonstrated that school-to-work programs prepare students for college as well as preparing them for work. All students, including the college-bound, are likely to master academic concepts better if they have an opportunity to apply them in a practical context (Stern, 1994).

To help students transition to work, the Department of Labor and Department of Education worked to gain the authorization of funds to support the reorganization of existing programs. School-to-work transition is the term used and includes cooperative

education, tech prep, youth apprenticeship, career academies, and school-based enterprises (Youth apprenticeship, 1993).

Therefore, for this study, existing literature about school-to-work transition programs, particularly cooperative education, was examined. Further, through this study specific school-based activities provided in the context needed for the students', enrolled in cooperative education, work-based experiences were detailed. In addition, the study was used to explore work-based experiences of the students that gave context to their school-based learning experiences, as perceived by teacher-coordinators of cooperative education, their students, and the students' workplace supervisors. Information obtained from this study provides insight into the relevance of school instruction to workplace requirements.

Teachers and employers must work together to ensure that students are provided with workplace experiences that are reinforced in the classroom. Therefore, both business teachers and workplace supervisors can look to this research to provide focus for curriculum development and to identify how school instruction can be more closely aligned with workplace requirements. To better prepare students for the workplace, teachers must be knowledgeable of how students link school with work, and how students link work with school. This research provides an understanding of workplace experiences that students perceive as linking with school-based experiences and school-based experiences they perceive as linking with the workplace.

This study also provides insight into experiences that students have not had in their school-based instruction that would help them to be better prepared to transition to the workplace. Thus, the information should enable teachers, counselors, and workplace

supervisors to more accurately identify experiences and activities that meet the needs of students transitioning to the workplace.

Definitions

For the purpose of this study, the following terms are defined:

Cooperative education is usually administered by a teacher-coordinator who secures part-time jobs for students during the school year, enabling them to gain supervised work experience directly related to their academic major and/or vocational choice (Mason, Furtado, & Husted, 1989). Cooperative education includes a training plan that clearly specifies what the student is expected to learn on the job (Ryan & Imel, 1996). The National School-to-Work Office (1997) defines cooperative education as a structured method of instruction whereby students alternate or coordinate their high school or postsecondary studies with a job in a field related to their academic or occupational objectives. Students and participating businesses develop written training and evaluation plans to guide instruction, and students receive course credit for both their classroom and work experiences. Credit hours and intensity of placements often vary with the course of study.

Experience is direct observation of or participation in events as a basis of knowledge; the fact or state of having been affected by or gained knowledge through direct observation or participation (Webster's Ninth New Collegiate Dictionary, 1985).

Contextual learning, also called situated learning, is learning that occurs in close relationship with actual experience. Contextual learning enables students to test academic theories via tangible, real world applications. Stressing the development of “authentic” problem-solving skills, contextual learning is designed to blend teaching methods, content, situation, and timing (The National School-to-Work Office, 1997).

Work-based learning is "the knowledge/learning imparted to every student from the beginning of schooling that maintains a theme or focus that people work in order to live and that there is a positive 'connectedness' between the schooling process and living productive lives" (Hoerner, 1995, p. 23). The National School-to-Work Office (1997) defines work-based learning experiences as activities at the high school level that involve actual work experience or connect classroom learning to work. The least intensive level of exposure to work-based learning might occur in traditional work experience and vocational programs (including cooperative education, distributive education, or vocational courses) that do not offer work site experience. The next level of exposure may entail the integration of academic and vocational/occupational curricula, as in the case of Tech Prep programs, but would not include work site experience. At the highest level, there is full integration of academic and vocational/occupational curriculum with work site experience.

School-based learning component of the School-to-Work Opportunities Act is defined by the National School-to-Work Office in the *School-to-Work Glossary of Terms* (1997) as "(a) career awareness and career exploration and counseling programs beginning at the earliest possible age, but not later than seventh grade; (b) career major selection not later than the beginning of eleventh grade; (c) a program of study that meets the academic standards the state has established for all students, including, where applicable, standards established under the Goals 2000 Act, and meets the requirements for postsecondary education preparation and skill certificate award; (d) a program of instruction and curriculum that integrates academic and vocational learning and incorporates instruction to the extent practicable, in all aspects of the industry; (e) regular evaluations of students and dropouts to identify their academic strengths and weaknesses, workplace knowledge,

goals, and need for additional learning opportunities; and (f) procedures that ease student entry into additional training or post-secondary education programs” (p. 50).

Limitations

Because of travel constraints, this study was limited to ten school sites in southwest Virginia. The study was further limited to interviews with one teacher-coordinator of cooperative education, one student enrolled in cooperative education, and the student’s workplace supervisor selected at each site--for a total of thirty interviews.

Organization of the Study

Chapter one contained the introduction of the study, the purpose and the statement of the problem. The research questions are posed in chapter one and the significance of the study is included. Chapter one further included definitions that pertain to the study, the limitations of the study, and the organization of the study.

A review of the literature as it relates to the study is presented in chapter two. The methodology used in the study is described in chapter three. In chapter four, the study results are presented; and in chapter five, the summary and conclusions based on the research results are provided.