A study to determine the impact of summer teacher externships on curriculum and teaching methods

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A STUDY TO DETERMINE THE IMPACT OF SUMMER TEACHER EXTERNSHIPS ON CURRICULUM AND TEACHING METHODS

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in

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ABSTRACT

A Study to Determine the Impact of Summer Teacher Externships on Curriculum and Teaching Methods

by

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Dr. Clifford R. McClain, Examination Committee Chair
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The purpose of this dissertation was to examine the effectiveness of summer teacher externships on affecting change in a teacher's curriculum or method of instruction so that students are better prepared to meet the employment needs of business and industry upon graduation.

The federal School to Work Opportunities Act of 1994 was designed to create the mechanism to promote a partnership between education and business. The goal of this partnership is to involve business in education, and educators in business, in order to give America's students the high skills needed to compete in today's global economy.

One of the programs designed to facilitate this partnership is the summer teacher externship program. In this program, educators spend a period of time, normally during the summer months, actually working in business and industry. The concepts and new skills learned are then brought back to the classroom so that students can be kept abreast of new requirements and changes taking place in the workplace.

In order to measure the effectiveness of this program, a survey was sent to the 226 Nevada educators who have participated in this program since its inception three years ago. The purpose of the survey was to determine whether or not the goals of the
externship program were being met. A secondary goal was to determine if the federal funding provided to the externship program was an effective use of funds to promote change.

The overall results of the study were extremely positive. Of those responding, 52% reported an increase in skill knowledge as a result of the externship. Fifty-five percent of the teachers stated that they made significant changes in their curriculum and 61% reported changes in teaching methods and strategies. When asked if they would like to participate in another externship, 82% said that they would and many recommended the program to others.

The recommendations made as a result of the study include continuing the program and expanding it to give more educators an opportunity to become aware of the current needs of the workplace.
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CHAPTER 1

INTRODUCTION

According to Bennis (1989) this country and its schools have changed dramatically in the past forty years. The work ethic of the 1950s gave way to the "me" generation of the 1980s. The youth of the 1950s looked to industry for a job for life, one that would never change, one that would give security. Hull and Parnell (1991) found that the youth of today will be confronted by a changing world, one in which the job they train for today will be gone tomorrow. New members of the workforce face the challenges of changing technology and the necessity for life long learning in order to remain competitive. This, in turn, presents a major challenge for the educators of today and tomorrow. Furthermore, how do educators keep abreast of the changes in concepts not yet known but necessary for the future? This question is at the core of life-long learning, this is what they must know for future success, this is the challenge for educators (Hull & Parnell, 1991).

Our Nation is at risk. Our once unchallenged preeminence in commerce, industry, science, and technological innovation is being overtaken by competitors throughout the world. This report is concerned with only one of the many causes and dimensions of the problems, but it is the one that undergirds American prosperity, security, and civility. We report to the American people that while we can take justifiable pride in what our schools and colleges have historically accomplished and contributed to the United States and the well-being of its people, the educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and a people. What was unimaginable a generation ago has begun to occur -- others are matching and surpassing our educational attainments (National Commission on Excellence in Education, 1983, p. 5).
The conclusions presented in *A Nation at Risk* (1983) provided a “wake-up” call to occupational educators throughout America (Seidman & Ramsey, 1995). For concerned instructors, it provided the impetus for changes they were attempting to incorporate into the education system. Seidman & Ramsey (1995) supported those instructors who believed that students needed job skills or they would not be able to compete in the global marketplace. As a part of their research, Seidman & Ramsey (1995) asked educators to consider what changes are needed in our educational system to make our students competitive in the market place of the 1990s and beyond.

Leary (1996) noted that “traditional secondary and postsecondary education do not adequately prepare students to be desirable employees with a base of knowledge they can apply in a multitude of situations” (p. 1). While secondary schools have been preparing students for college, Leary noted that 70 percent will never finish a baccalaureate degree. His study indicated that only 20 percent of the jobs of tomorrow will require a four-year degree but 70 percent will require some postsecondary training and education.

Parnell (1985) wrote that “the current movement from an industrial society to an information society is taking place so rapidly there is little time for reaction” (p. 13). He further noted that technical knowledge is doubling every five years, as evidenced by the 6,000 to 7,000 scientific articles which are written each day. The National Commission on Excellence in Education (1983) supported this in *A Nation at Risk* by stating:

More and more young people emerge from high school ready neither for college nor for work. This predicament becomes more acute as the knowledge base continues its rapid expansion, the number of traditional jobs shrinks, and new jobs demand greater sophistication and preparations (p. 12).
Daggett (1996) noted that in the 1950s, 73 percent of the jobs in the United States were in manufacturing and production. He indicated that by 1989, only 18 percent of the jobs were in this category. Daggett further predicted that a person beginning his or her career in the 21st century will have several careers and five to seven different jobs in a lifetime. Hull (1993) advised educators that in order to interest students in life-long learning, students must be shown the relevance of that learning to their future and their chosen career. Hull and Parnell (1991) found that many students “seem unable to connect much of what they learn and experience in the classical education curriculum with the competencies they need to function effectively in their real-life roles as learners, wage earners, citizens, consumers, family members, and healthy individuals” (p. 9).

Parnell (1995) discussed the concept of “contextual learning” which is an educational philosophy that “centers on enabling students to find meaningfulness in their education” (p. 2). This concept, identified by Parnell, stated that “teachers must help students understand the larger meaning of a particular study—how it relates to real-life issues and actual life roles” (p. 3). The student must understand the connection between classroom learning and the problems and challenges they will encounter in real life. They must “clearly see the ‘why’ in what they are learning, and thus they are motivated to learn” (Parnell, 1995, p. 10). According to Parnell (1995) a basic tenet of contextual learning is that context is as important as content; that the two functions of education are knowing and doing, and they are both essential and inextricably linked (p. 17).

The School-to-Work Opportunities Act (STOWA) of 1994 represented a major effort to solve the problem of helping students understand the relevance of their education while becoming competitive in the current marketplace (Seidman & Ramsey, 1995). This Act was designed to address the shortage of skilled workers in America and
"will enable states and local communities to initiate real education reform that will increase American students’ opportunities to pursue postsecondary education and high-skill, high wage careers" (Brustein & Mahler, 1994, p. 3).

The School-to-Work Act was signed into law on May 4, 1994 and it "reinforces the need to prepare students with high levels of technical skills and related academic competencies" (Brustein & Mahler, 1994, p. 7). "The purpose of the School-to-Work Opportunities Act is to assist students in preparing for future jobs by giving them timely and accurate career information along with the opportunity to obtain high levels of academic and technical skills" (Brustein & Mahler, 1994, p. 15). The goal of the Act was that students would go from high school into either high quality employment or further education. The Act also supported partnerships between employer and educator, labor and management, student, parent and teacher to achieve the goal of providing all "students with workplace learning experiences, such as, job shadowing, internships, and apprenticeships" (Luft, 1997, p. 325).

Luft (1997) asked the important question, "How can teachers understand and demonstrate how the skills and concepts being taught in their classrooms apply to various work settings if they have not worked or observed in business or industry for some time—or ever?" (p. 325). The answer to this question, Luft believed, was to provide educators with the opportunity to experience the work environment first hand, and provide them the opportunity to work in business and industry. This concept was supported in a recent report of the Education Commission of the States (1996), which recommended that employers and business leaders provide professional development for teachers, school administrators, and counselors by offering opportunities for the educators to work in their places of business over the summer or periodically during the school year.
In an attempt to provide this experience, the two universities in Nevada began a summer teacher externship program for Nevada educators. Under the leadership of two professors at the University of Nevada, Las Vegas (UNLV) and the University of Nevada, Reno (UNR), these institutions began offering opportunities for educators to gain experience in business and industry while also earning graduate credit at their respective universities. The teacher externships "would help teachers make their instruction more relevant in preparing students for the world of work and it would help counselors provide students with more accurate career information" (Luft, 1997, p. 325).

In both programs, educators were required to work a minimum number of hours during the summer in a business or industry related to their teaching assignment plus fulfill specific course requirements for the graduate credit (McClain, 1997; Luft, 1997).

McClain (1997) explained that the externship program at UNLV began in the summer of 1995 and continued through the summers of 1996 and 1997. Each summer, an average of 40 teachers, counselors and administrators enrolled in the related UNLV graduate course and participated in the work component of the externship program. The participants were all educators in the Clark County, Lincoln County, Nye County or Esmeralda County School Districts or at the Community College of Southern Nevada. They all received three graduate credits upon completion of the course.

The requirements for the course, according to McClain (1997), included working in business or industry for up to eight hours a day, four days a week, for three weeks. In addition, they met as a class on Friday mornings for two hours to discuss their experiences. Course requirements included listing elements, from their experiences, which they plan to add to their regular curriculum and writing an integrated lesson plan. The vocational teachers were required to write a lesson plan integrating academic
subjects into their vocational curriculum, and academic teachers were required to integrate vocational subjects into their academic curriculum.

The teachers were not paid by the employer during the externship work experience but received support, in different forms, from their respective schools. In the case of teachers from the Clark County School District, they were not paid for their work but the tuition for the college course was paid for them by the school district. The teachers at the Community College of Southern Nevada, however, were paid a stipend of $20 per hour and the majority of their tuition was covered by the College's grant-in-aid program. The stipend was paid with funds provided to the Community College by the federal School-to-Work grant (McClain, 1997).

The externship program at the University of Nevada, Reno (UNR) was quite similar to the one in Las Vegas according to Luft (1997). The program at UNR has been in place for two years, the summers of 1996 and 1997. The participants were educators with either their local school district or local community college. Approximately 80 teachers participated during the two summer sessions. As with the UNLV program, the educators enrolled in a graduate level course and were given three college credits upon completion.

Luft (1997) reported that the requirements included attendance at an initial course meeting at which time course expectations were outlined and forms distributed. The participants were required to work a minimum of 90 hours during the nine week summer school time period. Each individual completed a personal development plan in conjunction with his or her employer and this was submitted to the UNR professor early in the experience. Subsequent reports of progress were required at the end of each forty-five hours of work experience and a final report was submitted summarizing their
experience. In addition, each participant was required to develop two lesson plans that incorporated information gained from the externship experience. The local School-to-Careers partnership offered stipends to educators who participated in the externships and tuition grant-in-aid was available to community college teachers (Luft, 1997).

Statement of the Problem

What changes were subsequently made in curriculum and teaching methods by secondary and community college educators who completed a summer externship at UNLV or UNR?

Purpose of the Study

The purpose of the study was to measure whether or not participation in the summer externship program led to changes in teaching work/career related knowledge, skills and attitudes to students. It also addressed the issue of relevance by determining whether teachers made changes in curriculum and delivery methods designed to demonstrate to students the connection between knowledge learned in the classroom and competencies required in the workplace. Additionally, the study measured changes in teacher's attitudes toward work ethics and employer requirements that resulted from the externship experience. Since the federal School-to-Work Act provided the major funding for the externships, the study was also concerned with whether or not the federal dollars were spent wisely and had a significant impact on the improvement of education with regard to career preparedness.

Research Questions

The focus of the study was on answering the following questions with a
comparison done between secondary and community college respondents to determine both similarities and differences. To determine what changes the teachers made, as a result of the externship experience, the research answered the following questions:

1. How did the educators, who participated in the externship, perceive the experience?

2. Did the teachers report a change in their attitudes toward career related instruction as a result of the externship experience?

3. Did the teachers implement curriculum changes in their classroom as a result of the externship?

4. What changes did the educators make in their instructional delivery methods after the externship?

5. Did the teachers implement contextual learning concepts to show the student the relevance of material learned in class?

6. What additional information did the teacher impart to their students regarding work habits, workplace relationships, career education and other related topics as a result of the summer experience?

7. If the educator were to participate in a second externship, are there any changes they would suggest for the program?

Population

The study involved all of the approximately 200 secondary and community college educators in Nevada who participated in teacher externship programs during the summers of 1995, 1996 and 1997. The externships were sponsored by the University of Nevada, Las Vegas and the University of Nevada, Reno.
Significance of the Study

A review of the literature showed this to be a unique study since no research was revealed that addressed the questions posed by this study. The teacher externship program in Nevada was implemented in 1995. While both UNLV and UNR require participants to complete an evaluation form at the end of the program, no comprehensive study had been done to determine the effectiveness of this method of bringing workplace skills into the classroom. Upon completion of the study, the results add to the knowledge base in the related subject area. It outlines the knowledge that teachers gathered from their experiences while working in business and industry. Additionally, it reports how these teachers changed their curriculum and delivery methods as a result of this experience.

The results can be used by administrators to develop policies and procedures for teaching workplace skills and job readiness. Institutions of higher education can use the results in their colleges of education to prepare secondary/postsecondary teachers. The information gathered can also be used to determine how externships should be designed in the future and outline any beneficial changes that could be implemented. Current teachers can use the knowledge gathered from this study to revise curriculum and teaching methods.

Since a federal grant is the major source of funding for the externship programs, the results of this study can be used to determine if the program is an effective way to give teachers information on the workplace of today and the needs of employers, as is required by the grant funding. Additionally, the study can lead to further research on specific types of externships and whether or not it is important for teachers to participate in externships in their specific subject area. A third area of further research would be to
compare the changes in curriculum and delivery methods made by teachers enrolled in the related university graduate course, as the subjects of this study are, as compared to teachers who participated in a summer externships but did not attend the related seminar.

Limitations

The study was limited to teachers who participated in the summer externships sponsored by the University of Nevada, Las Vegas and the University of Nevada, Reno. The generalizability to the total teacher population and to other externship programs was limited. The study was further limited by the validity and reliability of the survey instrument and the ability of the researcher. The truthfulness of the respondents, when answering survey questions, was also considered as a possible limitation to the results.

The return rate of the survey was another limitation that must be taken into account when drawing conclusions from the data. McMillian & Schumacher (1997) advised that a 70 percent return rate is considered acceptable. Since the return rate was lower than 70 percent, this is considered to be a further limitation to the study.

Methodology

In order to determine the changes implemented by teachers as a result of participation in the summer externship program a survey was developed and mailed to all 226 educators who enrolled in the program. The survey was developed from existing surveys used at UNR, UNLV, the Community College of Southern Nevada and other institutions. These surveys, used to evaluate the specific externship programs, were modified and expanded to meet the needs of this research.

The survey instrument had two parts; part one asked specific questions which were answered on a modified Likert scale numbered one to four, part two asked several
open-ended questions which were answered in short written form (McMillan & Schumacher, 1997, p. 257). The validity and reliability of the instrument were determined through a review by experts which included the administrators of the specific Nevada externship programs and members of the educational faculty of UNLV (McMillan & Schumacher, 1997). A pilot study was then done involving approximately five teachers from the Community College of Southern Nevada who participated in the summer externship program but did not enroll in the related UNLV courses (Gall, Borg, & Gall, 1996, p. 298). This gave the researcher an opportunity to validate the survey instrument without involving any of the actual population group.

The final survey instrument was then mailed to all members of the target population. A cover letter was included outlining the importance of the study and how the results were to be used (McMillan & Schumacher, 1997). Additionally, a self-addressed, stamped envelope was included to encourage a prompt reply. A follow-up card was mailed two weeks following the initial mailing to all those who had not replied. A follow-up letter was subsequently mailed to those who still had not replied. This letter included a second copy of the survey instrument along with another return envelope. Where possible, a follow-up phone call was made to further increase the return rate. A 70 percent return rate was the goal, as recommended by research experts McMillan & Schumacher (1997).

Quantitative analysis methods were be used to report the results of this portion of the study. These included measures of central tendency (Gall et al., 1996). Additionally, demographic information was collected, such as years taught, subject matter and grade level, etc. The results of the different groups were compared to determine differences in response based upon demographic factors (McMillan & Schumacher, 1997). McMillan

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& Schumacher (1997) further noted that open-ended questions should be reported as descriptive data and should be used to further explain the extent of possible changes.

In addition to the quantitative methods outlined above, the researcher personally interviewed ten of the candidates (Gall et al., 1996). These interviews involved five secondary and five postsecondary teachers. The results were compiled and reported as qualitative data. This further validated the results of the quantitative study (Gall et al., 1996,).

Definition of Terms

Academic curriculum - Subject matter taught in a traditionally academic course, such as, math, English, science, or the social sciences (Daggett, 1992).

Academic teacher - A teacher of a traditionally academic course like English, math or science. (Daggett, 1992).

Contextual learning - Learning accomplished in a setting that relates the academic knowledge to real world situations (Hull & Parnell, 1991).

Delivery methods - Specific ways to deliver, or teach, the curriculum to students; teaching methods (McClain, 1997).

Demographic data - Data that gives information regarding the teachers, such as, number of years taught and grade level (McMillian & Schumacher, 1997).

Externship - An educational experience that takes place as a result of working outside the educational setting in an independent business or industry (McClain, 1997).

Global marketplace - The realization that the United States competes with industries throughout the world and that our workforce must meet or exceed those workers to remain competitive (Daggett, 1992).
Grant-in-Aid - A benefit available to professional employees of the University and Community College System of Nevada which gives tuition assistance (McClain, 1997).

Integrated lesson plan - A teacher's lesson plan which combines elements of both academic and vocational subjects (Bottoms et al. 1992).

Life-long learning - The realization that the knowledge needed today will be obsolete tomorrow, and that there is a need for increased learning throughout an individual's lifetime (Pamell, 1995).

Likert scale - A way to rate a response on a graduated scale from one to five, depending upon the strength of the response (McMillan & Schumacher, 1997).

Occupational/Vocational education - Education which takes place in a classroom devoted to teaching career skills to students, such as, computers, keyboarding, drafting, automotive, graphic arts, and other related subjects (Daggett, 1992).

Open coding - In qualitative analysis, the analytic process by which concepts are identified and developed in terms of their properties and dimensions (Strauss & Crobin, 1990).

Postsecondary teacher - An educator that teaches students in the college or university system; education after high school (Luft, 1997).

Qualitative analysis - A descriptive analysis that uses words, as opposed to numbers, to describe the results of a survey or questionnaire (Gall et al., 1996).

Quantitative analysis - Research which uses quantitative methods, or numbers, such as mean and frequency, to describe the results of a survey or questionnaire (Gall et al., 1996).
Relevancy - Showing the relationship of classroom teaching to real life (Parnell, 1995).

Reliability - The knowledge that the survey results would be the same if administered to another similar group at another time (McMillan & Schumacher, 1997).

School-to-Careers Partnerships - Local boards, comprised of both educators and business and industry representatives, which administer the provisions and monitor the local funding provided through the School-to-Work Opportunities Act (Burstein & Mahler, 1994).

School-to-Work Opportunities Act - An act passed by Congress on January 25, 1994 to establish a national framework for the development of School-to-Work Opportunities systems in all states (Burstein & Mahler, 1994).

Secondary teacher - A teacher in grades seven through twelve (Luft, 1997).

Validity - The knowledge that the survey instrument actually measures the elements it is designed to measure (McMillan & Schumacher, 1997).

Vocational teacher - A teacher of occupational subjects; such as, keyboarding, welding, electronics, nursing or other occupational area (Daggett, 1992).

Workplace habits - Traits related to reporting to work on time, following directions, not abusing sick leave, paying full attention to work related duties while on the job, and taking direction (Leary, 1996).

Workplace relationships - How an employee relates to other employees. Whether or not an individual can function favorably in a team work situation (Leary, 1996).

Summary

The rapidly changing workplace of the 1990s requires a workforce that is able to
change and grow with the new technology in order to meet the challenges of the expanding global marketplace (Daggett, 1992). According to McClain (1997), “One of the most challenging problems for occupational teachers is staying current in their fields” (p. 20). Luft (1997) asked, “How can teachers understand and demonstrate how the skills and concepts being taught in their classrooms apply to various work settings if they have not worked or observed in business or industry for some time—or ever?” (p. 325).

This study was designed to measure changes in curriculum and delivery methods instituted by teachers who participated in the summer externships which were designed to make them more current in their field and to allow them to discover changes that have taken place in the workplace in recent years. “The goal of the externship program was to provide teachers, who had been teaching for at least three years, with information on current business and industry skills, competencies, knowledge and trends through real-life experiences in an actual working environment” (McClain, 1997, p. 20). The questions answered in this study showed whether or not this endeavor fostered subsequent changes in the classroom.

Chapter 2 is a review of the literature that relates to the school-to-work emphasis in general and the teacher externships specifically. Chapter 3 outlines the methodology that was used in analyzing the data collected from the survey. Chapter 4 includes an analysis of the data collected, while Chapter 5 concentrates on conclusions, recommendations for further study and a summary of the information derived from the study.
CHAPTER 2

REVIEW OF THE LITERATURE

Historical Background

This chapter reviews the literature that pertains to teacher externships related to the principles of the School-to-Work Opportunities Act (1994). The principles that fostered this act began with the teachings of Dewey (1899) and his philosophy of education. As early as 1899, Dewey realized that what we learn today will be outdated tomorrow. Dewey stated that:

In the modern American society, the adults are not preserving the status quo. American social and cultural conditions are constantly changing. With the advent of democracy and modern industrial conditions, it is impossible to foretell definitely just what civilization will be twenty years from now. Hence it is impossible to prepare the child for any precise set of conditions. When adult society is undergoing rapid reconstruction, traditional education becomes a deliberate miseducation of the young, a program for unfitting them for life. In a changing society, to prepare the child for future life means to give him command of himself, it means to train him so that he will have the full and ready use of all his capacities. (Ratner, 1940, p. x)

In a foreword by Ratner (Dewey, 1940), he spoke about Dewey’s philosophy of democracy and the importance he placed upon education as a means to overcome the obstacles to the continuation of a democratic society. In a series of lectures in 1899, Dewey spoke about the importance of a school as a social institution. Dewey (1966) defined education as, “the process of remaking, or reconstituting experience, so as to give it a more socialized content, through the medium of increase of control of experience” (p.113).
In his first lecture on pedagogy in 1896, Dewey opened his remarks by stating that, "The philosophy of education has the problem of discovering what the value of education is in human experience, of discovering, that is to say, the place which it occupies in the larger whole of life" (Wirth, 1898, p. 28). In an address to the Public Education Association in 1917, Dewey stated, "Contrary to the general opinion, popular education has always been rather largely vocational" (Dewey, 1940, p. 126). He went on to note that higher education began as vocational training for the priesthood, medicine and the law. Also, higher education provided training "that was needed by the clerks, secretaries, scribes, etc., who have always had a large part of the administering of governmental affairs in their hands" (p. 126).

Regarding vocational education for youth, Dewey's philosophy included a need for concentration on what he defined as "active occupations". These were endeavors that children were already familiar with, and interested in, through activities in the community and at home. (Boydston, 1983, p. 271) As opposed to apprenticeship training, which did not give any academic education, vocational education would include expanded, "resources which allow the school to help children move with ease and ever-growing competence into careers in industrial society" (Boydston, 1983, p. 275). Boydston believed that the changing demands of industry presented the need for the expanded training and this new need required education reform.

In research conducted by Wirth, he noted that, "Dewey opposed vocational education that would be limited to the mere acquisition of job skills" (Wirth, 1989, p. 210). Wirth wrote that Dewey proposed a general training that "concentrated on the underlying principles of industrial processes and their social significance rather than on the mere acquisition of skills" (p. 211). Dewey felt that a major obstacle would be
finding teachers for these expanded courses, those who could “make school life more active, more full of immediate meaning, more connected with the out-of-school experience” (Dewey, 1916, p. 316). Dewey’s goal was “an education that would equip students to emerge from the schools with a broad understanding of the nature of industry and technology, a respect for the dignity of work and an awareness of the social implications of change” (Wirth, 1989, p. 230).

With the growth of the industrial workplace, other writers began to look at ways to train a working society. Taylor (1947) looked at ways to increase American production through a system of individualized tasks, specialization, and division of labor. “All of this requires the kindly cooperation of management, and involves a much more elaborate organization and system than the old-fashioned herding of men in large gangs” (Taylor, 1947, p. 70). Taylor believed that by being highly selective, and rewarding workers based upon output, the goal of the workers for high wages would be met and the goal of management, high output and low cost, would be reached.

Skinner’s (1974) research on behaviorism also centered around building skill levels. To Skinner, education’s goal was to master a set of skills that were observable and measurable. Based upon this principle, Skinner believed that vocational education should concentrate on the mastery of skills and competency. He felt that human behavior involved stimulus/response mechanisms and defended his theory’s emphasis on the influence of the environment (Skinner, 1974). Behaviorism evolved over the years and in later publications Skinner (1989) wrote that “learning is not doing; it is changing what we do” (p. 16). Todd and Morris (1995) claimed that “contemporary behaviorism is seen as a particular brand of learning theory devoted primarily to the analysis of the effects of reinforcement ... under controlled laboratory conditions” (p. xxiii).
Education for the Future

In discussing the future of education, researchers believed that the issues facing public schools “must be placed in both a societal context focused on attaining greater democracy and an educational context which links public schools and colleges” (Holtz, Marcus, Dougherty, Michaels & Peduzzi, 1989, p. 217). They attested to the fact that, “The paramount purpose of schooling is to produce creative, imaginative people who can work cooperatively to build a more just and equitable future” (Holtz et al., 1989, p. 217).

According to Bennis (1989) our country and our schools have changed dramatically in the past forty years. The work ethic of the 1950s gave way to the “me” generation of the 1980s. The youth of the 1950s looked to industry for a job for life, one that would never change, one that would give security. Hull and Parnell (1991) found that the youth of today will look forward to a changing world, one in which the job they train for today will be gone tomorrow. Youth face the challenges of changing technology and the necessity for life-long learning in order to remain competitive. According to Hull & Parnell, this, in turn, presents a major challenge for the educators of today and tomorrow. How do we teach students concepts not yet known but necessary for the future? They believe that this question is at the core of life-long learning, this is what they must know for future success, this is the challenge for educators.

The findings outlined in A Nation at Risk (1983) provided a “wake-up” call to occupational educators throughout America. To up-to-date instructors, it provided fuel for the changes they were attempting to incorporate into the education system. Namely, they feel that students need job skills or they will not be able to compete in the global marketplace (Seidman & Ramsey, 1995). They asked educators to consider what
changes are needed in our educational system to make our students competitive in the market place of the 1990s and beyond.

It has been noted that “the ability and willingness to continue learning throughout life will be a key ingredient to success for those who are students in the 1990’s” (Mullin, 1991, p. 72). Mullin wrote that the 1990s will show a “shift from the dependence on each other locally or nationally to a truly global interdependence” (p.72). In a series of dialogues between business and educators, sponsored by The College Board, the leaders found that “efficiency in industrial production is directly related to the quality of an employee’s educational background” (The College Board, 1984, p.1). The dialogue participants further noted that as jobs become obsolete or are re-defined by rapidly changing technology, employees must be able to make changes and shifts in job skills. They wrote that “everyone must master the lifelong skill of learning how to learn” (The College Board, 1984, p.1).

Leary (1996) noted that “traditional secondary and postsecondary education do not adequately prepare students to be desirable employees with a base of knowledge they can apply in a multitude of situations” (p. 1). Secondary schools have been preparing students for college, however, 70 percent will never finish a baccalaureate degree. Leary’s (1996) study showed that only 20 percent of the jobs of tomorrow will require a four-year degree but 70 percent will require some postsecondary training and education.

Parnell (1985) wrote that “the current movement from an industrial society to an information society is taking place so rapidly there is little time for reaction” (p. 13). He further noted that technical knowledge is doubling every five years, as evidenced by the 6,000 to 7,000 scientific articles which are written each day. The National Commission
on Excellence in Education (1983) also came to this conclusion and they further determined that:

More and more young people emerge from high school ready neither for college nor for work. This predicament becomes more acute as the knowledge base continues its rapid expansion, the number of traditional jobs shrinks, and new jobs demand greater sophistication and preparations (p. 12).

Daggett (1996) noted that in the 1950s, 73 percent of the jobs in the United State were in manufacturing and production. He indicated that by 1989, only 18 percent of the jobs were in this category. Dagget predicted that each person beginning his or her career in the 21st century will have several careers and five to seven different jobs in a lifetime. In discussing the future, Daggett (1992) concluded that with the fast-paced changes in job skill requirements, unskilled workers will become unemployable by the 21st century. He pointed to this as further support for the need for higher skills and life-long learning.

Bunzel (1985) wrote about the push for reform in education. He outlined how the Russian space scare supported the move for more science and math in 1957, and how Japanese production efficiency sparked reform efforts in 1983. Bunzel (1985) concluded that “our concern in 1983 was not that American military technology would not remain the best in the world—it probably would—but that American soldiers would not be competent enough to know how to use and repair the equipment” (p. 218). In a subsequent report, Daggett (1992) found that “despite ten years of school reform we now, in 1992, have the greatest gap of any time in our nation’s history between the skills young people possess when they leave school and the skills they need for employment” (p.2).

Contextual Learning

Hull (1993) told educators that in order to interest students in life-long learning,
they must be shown the relevance of that learning to their future, to their career. He found that students often don’t see how what they’re being asked to learn in school will ever matter in their lives or careers. Many students “seem unable to connect much of what they learn and experience in the classical education curriculum with the competencies they need to function effectively in their real-life roles as learners, wage earners, citizens, consumers, family members, and healthy individuals” (Hull & Parnell, 1991, p. 9).

Parnell (1995) defined the concept of “contextual learning” as an educational philosophy which “centers on enabling students to find meaningfulness in their education” (p. 2). This concept stated that “teachers must help students understand the larger meaning of a particular study—how it relates to real-life issues and actual life roles” (Parnell 1995, p. 3). The student must understand the connection between classroom learning and the problems and challenges they will encounter in real life. They must “clearly see the ‘why’ in what they are learning, and thus they are motivated to learn” (Parnell 1995, p. 10). According to Parnell (1995) a basic tenet of contextual learning is that context is as important as content. The two functions of education are knowing and doing, and they are both essential and inextricably linked.

Posner (1992) discussed curriculum in depth in his book Analyzing the Curriculum. Two of the curriculum approaches he mentioned were behavioral and cognitive. In the behavioral approach Posner (1992) talked about a perspective in which “the content of the curriculum comprises a set of skills described by statements specifying observable and measurable behaviors, termed ‘behavioral’ or ‘performance’ objectives” (p. 96). These skills are “neutral in regard to purpose” and the content consists only of skills or competencies. (p. 96). In the cognitive approach, Posner (1992)
described a curriculum which “considers the development of the mind to be the central purpose of education” (p. 97).

As described by Posner (1992) these concepts of curriculum development are exemplified by the idea of outcome-based education that focuses on measurable results. "These ‘bottom-line’ or ‘pay-off’ theories focus on only those outcomes that reflect the curriculum’s goals and objectives" (Posner, 1992, p. 235). Posner told us that this form of curriculum development included both long term and short term goals which must be taken into account when using this form of curriculum development.

Daggett (1992) said that “today’s curricula and assessments still mirror the model of the industrial society of the 1950s; each subject is treated as independent of the others and...we continue to see students as passive learners” (p. 2). He noted that “skill requirements on the job changed at a rate four to five times faster than curriculum and organizational changes in our schools, leaving a gap between what students learn in the classroom and what is expected of them in the workplace” (Daggett, 1992, p. 2). Daggett further declared that this “gap grows wider with each passing year” (p. 2).

Competency-based or performance-based curriculum was discussed in the 1970s by two Nevada educators (Saville & Kavina, 1977). According to these authors, competency based programs in teacher education programs “base their certification or re-certification of teachers upon certain identifiable competencies related to the job and being demonstrated and measured in some manner” (Saville & Kavina, 1977, p. 178). They noted that the Nevada State Committee on Teacher Certification recommended studying the feasibility of implementing performance based teacher certification and re-certification programs.
Piaget (1970) wrote about the two teaching methods, verbal and active. He described these as the “traditional verbal methods, which are easier to use when the teaching personnel has not been able to acquire a sufficiently advanced training, and the active methods, which become more and more necessary with the increasing desire to train more technicians and scientists” (p. 66). He stated, however, that no great progress has been made in implementing the active methods “simply because the active methods are much more difficult to employ than our current receptive methods, … they require a much more varied and much more concentrated kind of work from the teacher” (p. 69).

In meeting the global challenges of today’s society, many inadequacies of our workers are blamed on our countries “outmoded schooling system” (Wilson, 1994, p. 2). In his essay, Wilson (1994) wrote that “education for the new century is a life-long process of training the mind to manipulate information, to solve problems, to imagine, and to create, as well as to master specialized technical information” (p. 2). With regard to methods of teaching, Wilson (1994) reminded us that “a person learns to play the piano not by reading about techniques but by practicing and integrating those techniques and then playing progressively more demanding pieces” (p. 82). He believed that “one learns to think skillfully by solving real problems… we develop strength and agility not by reading the sports page but through exercise” (Wilson, 1994, p. 82). Wilson concluded that, “A new kind of learning also demands a different kind of teaching. While data may be transferred by rote from one mind to another, higher-order skills must be evoked or coached. The difference is crucial in improving the results of what happens in our classrooms” (p. 82).

Wilson (1994) differentiated between “education’s traditional paradigm, teachers teach by lecturing; a student is expected to learn by listening” (p. 82) with a coach who
monitors performance, offers praise, and shows an athlete how to improve by example. He noted that "a coach must be a master of the discipline being learned and of the art of teaching it" (p.83). Wilson (1994) related this to an aspiring woodworker who "doesn't apprentice himself to someone because that person has read books about woodworking; he seeks out a master cabinetmaker with a knack for nurturing talent in others" (p. 83). Wilson felt that teachers should practice the subjects they teach, not just read about them.

In discussing contextual learning, knowing the reason for learning, Parnell (1996) explained that, "The brain tends to discard information for which it finds no connection or meaning, or for which the meaning is obscure" (p. 20). He believed that "for teaching to be truly effective, the student must be motivated to connect the content of knowledge with the context of application, thus utilizing the ability of the thinking brain to solve problems and to assimilate that knowledge in a way that can be useful in new situations" (p. 20).

Parnell (1996) called "the human brain a computer, not a freezer (p.18). He said that "understanding how it works should lead to new teaching methods that help students make connections" (p. 18). Parnell disputed the contemporary pedagogy that merely requires students to commit knowledge to memory without understanding the practical application of that knowledge (p. 18). He stated that, "The greatest sin committed in many schools today is...the failure to help students use the magnificent power of the brain to make the connections between knowing and doing" (Parnell, 1996, p. 18).

According to Finn (1991) studies show that American education is slowly evolving into an outcomes-based system. Finn (1991) wrote that, "American education is slowly evolving into an outcomes-oriented enterprise whose institutions, employees,
and policy makers will be held responsible for their results by the public they serve” (p. 149).

Studies done by the Southern Regional Education Board (Bottoms, Presson, & Johnson, 1992) determined that, in order to prove that applied (contextual learning) courses properly prepared students, they must prove that they contained essential content from college prep courses. Practitioners must make it clear that applied learning represents a major shift in what non-college preparatory students are taught and what is expected of them, and they must be able to measure student achievement (Bottoms et al., 1992).

The concept of LogoLearning was outlined in Parnell’s (1994) most recent book. This book addressed the question of “Why do I have to learn this?” which was often answered with “Because you might need it someday” (p. 11). According to Parnell, LogoLearning, came from the Greek word logos which denotes meaning, “it arose from the early Greek philosophical foundations of meaning, reason, and purpose” (p. 11). LogoLearning described an educational philosophy and strategy that enabled students to find meaningfulness in education.

LogoLearning outlined the “Four As” of education. These were described as: “learning for acquisition of knowledge, learning for application, learning for assimilation and learning for association” (Parnell, 1994, p. 9). Parnell felt that all of these principles must be in place for true comprehensive learning to take place. He outlined seven principles that can transform the classroom into a true learning environment. In order these included: “purpose, building, application, problem-solving, teamwork, discovery, connection” (Parnell, 1994, p. 16). He wrote that “when educators shape their instruction around these seven principles, the education process is transformed, beginning with the
attitude of the students” (p. 16). LogoLearning, which is contextual learning, put meaning and purpose in learning, which Parnell deemed as essential for mastery of any subject.

One of the programs supported by federal funding is the tech prep program. Parnell (1985) described this program, which combined occupational education at the high school and college level with contextual learning concepts. In studying ways to develop tech prep curriculum, the Center for Occupational Research and Development found that:

- Most people learn best in an experiential manner involving personal participation, physical or hands-on activities, and opportunities for personal discovery.
- Learning is greatly enhanced when concepts are presented in a context involving relationships that are familiar to the student. The human brain vigorously seeks meaning and integration of new ideas into the entire spectrum of its prior knowledge.
- Most people relate better to concrete, tangible examples and experiences than to abstract, conceptual models.
- Most people are extroverted learners who do best through interpersonal communication, group experience, sharing, mutual support, team processes, and positive reinforcement.
- Rote memorization is an inefficient and ineffective learning strategy.
- Transfer of learning from one situation to another is not consistently predictable; this ability is in itself a skill to be learned. (Parnell, 1994, p. 5)

Charner (1996) noted that “studies of capabilities required for success on the job and in life experiences point to the same conclusions” (p. 5). The idea of accountability today relates to specified goals or outcomes to be achieved. “The United States is the only industrialized nation in the world that has not institutionalized a school-to-work transition system for helping young people move from education to employment” (Charner, 1996, p. ix).

The School-to-Work Opportunities Act

The School-to-Work Opportunities Act represents the most meaningful
partnership between education and industry ever envisioned by Congress. This far-reaching federal law will enable states and local communities to initiate real education reform that will increase American students' opportunities to pursue postsecondary education and high-skill, high-wage careers. (Brustein & Mahler, 1994, p. 3)

The School-to-Work Opportunities Act (STOWA) of 1994 represented a major effort to solve the problem of making students understand the relevance of their education while becoming competitive in the current marketplace (Seidman & Ramsey, 1995).

According to Brustein and Mahler (1994) the School-to-Work Opportunities Act was designed to address the shortage of skilled workers in America. The focus of the Act is forming partnerships between employers and educators in order to give students the best possible education for the workplace of the future. The Act was signed into law on May 4, 1994 and it "reinforces the need to prepare students with high levels of technical skills and related academic competencies" (Brustein & Mahler, 1994, p. 7).

"The purpose of the School-to-Work Opportunities Act is to assist students in preparing for future jobs by giving them timely and accurate career information along with the opportunity to obtain high levels of academic and technical skills" (Brustein & Mahler, 1994, p. 15). The goal is that students will go from high school into either high quality employment or further education. The Act also forms partnerships between employer and educator, labor and management, student and teacher to achieve the goal of providing "all students with workplace learning experiences, such as, job shadowing, internships, and apprenticeships" (Luft, 1997, p. 325).

Charner (1996) tells us that students "will need to function in the high performance workplace predicted for the near future; however, many are not equipped with the basic academic and occupational skills needed for today’s highly competitive
global economy" (p. iv). "The School-to-Work Opportunities Act of 1994 offers a chance to bring together partnerships of employers, educators, and others to build an effective school-to-work system that prepares young people for either high-quality jobs or further education and training" (Charmer, 1996, p. v). To illustrate the importance of school-to-work, Charmer (1996) emphasized that "a skill-deficient workforce hampers the nation's economic growth, productivity, and ability to compete in an international economy" (p. xi).

In its report to the nation on American workers, the National Center on Education and the Economy's Commission on the Skills of the American Workforce (1990) found that America faces a choice "between high skills and low wages" (p. 18). The report found that "one reason that students going right to work after school have little motivation to study hard is that they see little or no relationship between how well they do in school and what kind of job they can get after school" (p. 18). This commission concluded that "America is headed toward an economic ebb. We will no longer be able to put a higher proportion of our people to work to generate economic growth. If basic changes are not made....the gap between economic have's and have not's will widen still further and social tensions will deepen" (p. 21).

In 1994, the Washington Governor's Council on School-to-Work Transition spent nine months studying the issue of school-to-work transition. They concluded that there is a "need to adapt our education system to the requirements of a new era....an era in which global competition for good jobs has driven up the skill standards for high-wage industries" (p.1). The Council further determined that students often left school with no marketable skills and this was often because they failed to see the "relevance or usefulness of what they learn in school, and are therefore not motivated to study"
(Governor’s Council, p. 1). To solve this problem, the council recommended that we “bring together educators at every level with employers, unions, other government agencies, and communities and build bridges between the world of school and the world of work” (p. 6).

In a series of dialogues co-sponsored by three entities; The College Board, business groups and educational institutions, participants discussed the academic preparation of students as it relates to the world of work. It was reported that “many dialogue participants agreed that business and industry could play an important role in the educational process by providing first-hand information to students on what various jobs entail and how academic competencies are applied in the marketplace” (The College Board, 1984, p. 2).

In a joint study by the U. S. Departments of Commerce, Education and Labor (1988), they urged that “both business and education stress the need to develop mechanisms to reduce the isolation of their worlds in order to improve students’ preparation for the workplace and for responsible adulthood” (p. 5). They further recommend that “aggressive action may be needed by business and education to learn from each other and to change the way education is provided to ensure a quality workforce and a productive nation” (U.S. Dept. of Commerce et al., 1988, p. 5). The study urged that, “Business should expand its involvement and investment in our education system beyond symbolic efforts in a way that will improve educational effectiveness and efficiency” (p. 6).

The School-to-Work Opportunities Act of 1994 combines three central elements:

1. Work-Based Learning - the incorporation of work experience, workplace
mentoring, and industry-specific skills into a sequential program of skill mastery and job training.

2. School-Based Learning - the integration of academic and vocational curriculum.

3. Connecting Activities - the implementation of bridging activities that match students with employers, link secondary with postsecondary education, and assist students to acquire additional training. (Laanan, 1995, p. 3).

In his study, Laanan (1995) pointed to the role of high schools and community colleges in the school-to-work effort as one designed to “connect educators with business, explore innovative curricula, and invest in the professional development of teachers, counselors and administrators” (p. 4).

Teacher Externships

“How can teachers understand and demonstrate how the skills and concepts being taught in their classrooms apply to various work settings if they have not worked or observed in business or industry for some time—or ever?” (Luft, 1997, p. 325). The answer to this problem is to provide educators with the opportunity to experience the work environment first hand, and provide them the opportunity to work in business and industry (Luft, 1997). “The idea was supported in a recent report of the Education Commission of the States (1996), which recommended that employers and business leaders provide professional development for teachers, school administrators, and counselors by offering opportunities for the educators to work in their places of business over the summer or periodically during the school year” (Luft, 1997, p. 325).

In a criticism of current professional development opportunities for teachers, Wilson (1994) reported that “nothing has promised so much and has been so frustratingly wasteful as the thousands of workshops and conferences that led to no significant change
in practice when the teachers returned to their classrooms” (p. 90). Wilson challenged the educational community to discover and implement new ways to improve teaching and make it more relevant for both the student and the teacher.

In a recent article regarding school-to-work initiatives, UNR Professor Vern Luft (“Get Back to Work,” 1998) was quoted as stating, in a presentation to the AVA national convention, that “educators today should take a page from their own book and spend a little time in the real world—the same world their students will encounter” (p. 4).

A project designed to further the integration of vocational and academic education in Ohio sent teams, consisting of a vocational and an academic teacher, into the workplace together (Ashmore, Lewis and Kurth, 1996). The teams reported the important outcomes included “seeing the relationships between academic and occupational skills, creating relationships with potential employers for student internships, learning new processes, learning to work together as a team, learning new occupational skills, updating existing occupational skills, obtaining resources and teaching materials for the classroom, and learning new management skills” (Ashmore et al., 1996, p. vii).

Bober (1991) reported on faculty internships at the community college level. He wrote that “educational leaders at all levels are continually reminded of their responsibility to produce employees with skills to make them capable of competing in a global economy” (p. 31). He outlined the faculty externship program at Terra Technical College in Fremont, Ohio that provides full-time faculty with leave time to work in the private sector. According to Bober (1991), “Since the summer of 1989, nearly one-third of the full-time faculty and department heads have participated in the program involving eighteen businesses and five governmental agencies” (p. 31). These externs “are loaned
for a predetermined period of time to engage in ‘hands-on’ work experiences typical of
the business and relevant to the extern’s teaching field” (Bober, 1991, p. 31).

In reporting the results of their experience, teachers told of learning and updating
academic and technical skills, improving knowledge of current technology, and revising
curricula used in the classroom (Bober, 1991, p. 32). According to Bober, “The faculty
externship program has been a startling success for Terra Technical College. It resulted
in direct benefits to students and business and industry. It has revitalized and retooled
faculty, and it has reassured the local community about its investment in postsecondary
education” (Bober, 1991, p. 32).

The Houston Community College System promoted business and teacher
interaction through its Business Externship Program (Walke, 1993). According to Walke
(1993), “The Business Externship Program allows faculty from all disciplines to be
placed in temporary jobs with businesses that can use their skills for short term projects.
The purpose is to provide full time faculty with opportunities to gain practical work
experience” (p. 3). This experience often translated into upgraded programs and
improved skills and knowledge on the part of the instructor. Other benefits included
improved morale and increased retention (Walke, 1993, p. 3).

Roosevelt High School in Portland, Oregon initiated a paid summer internship for
teachers in the summer of 1991 (Warrington, 1995). An advisory committee was formed
from participating businesses that continued throughout the term of the internship. “Over
two summers, 10 Roosevelt teachers spent eight weeks each working and participating in
daily routines at various Portland businesses and agencies. At most internship sites
teachers were assigned projects and were expected to show up for the same work day as
their co-workers on the job” (Warrington, 1995, p. 209). When teachers returned to
school in the fall, they reported their experiences and observations at a staff meeting.

"They discussed the kinds of skills they had seen to be essential in the work world...and through sharing what they had learned, they helped the rest of the teachers think about the world that students will enter after high school" (Warrington, 1995, p. 209).

These concepts gave rise to the summer teacher externship programs in Nevada. The University of Nevada, Las Vegas and University of Nevada, Reno offered opportunities for educators to gain experience in business and industry while also earning graduate credit at their respective universities. The UNR teacher externships "would help teachers to make their instruction more relevant in preparing students for the world of work and it would help counselors to provide students with more accurate career information" (Luft, 1997, p. 325).

McClain (1996) wrote about the UNLV externship program. He reported that, "The goal of the program was to provide teachers, who had been teaching for at least three years, with information on current business and industry skills, competencies, knowledge and trends through real-life experiences in an actual working environment" (McClain, 1996, p. 20).

Sponsored by a School-To-Work grant, the UNLV program "was designed as an initial step toward establishing an occupational teacher work experience program in Southern Nevada. One of the most challenging problems for occupational teachers is staying current in their fields. Through the externships, the secondary and postsecondary teachers worked at sites related to their specialties" (McClain, 1996, p. 20).

In both the UNLV and UNR programs, educators were required to work a minimum number of hours during the summer in a business or industry related to their teaching assignment. At UNLV they were also required to attend a weekly class, while
the UNR program required that they submit periodic progress reports. In both programs, the teachers earned three graduate credits after completion of all the requirements. Some educators were paid for their work, either through a stipend from the School-to-Work grant or by way of a salary from the employer. Others had their college tuition paid by grant funding (McClain, 1997). School-To-Work grant funds were allocated by the sponsoring consortium and, in the case of UNLV, this was the Southern Nevada School-to-Work consortia and its participating institutions.

McClain (1996) wrote that through this program “teachers were able to update their technical skills, learn about current workplace requirements and job readiness skills and develop new energy for the classroom through their externships” (p.21).

“Teachers said learning about current employer work expectations, hiring and firing practices, promotion requirements and related salary scales was an eye opener. Most agreed they did not adequately address these topics in their occupational programs” (McClain, 1996, p. 21). A commercial design teacher spoke for all in stating that “we need to place more emphasis on the business aspect of our occupations. Students think that they are there to make a paycheck but they don’t realize that the employer expects to make a profit from their work” (McClain, 1996, p.21).

Many educators involved with the teacher externship programs have encouraged traditional academic teachers to take advantage of the opportunity to be out in the workplace. Mary Jean Crumb, a Language Arts teacher from Carson City, Nevada, was quoted as saying that “because of my externship experience, I probably talk much more about what the requirements are like out there” (Eppard, 1998, p.62). Crumb also found “a terrific emphasis on listening and speaking skills” in the real workplace (Eppard, 1998, p. 62). In writing about Luft’s program at the University of Nevada, Reno, Eppard...
(1998) states that the "thrust of Luft's externship program is to give educators an up-close
look at the skills their students will need to apply for—and keep—local jobs and the work
ethic that's going to be expected. For many teachers, the experience gives their curricula
a shot in the arm" (p. 62.).

Summary

The literature in this chapter reviewed the history and development of issues
leading up to the School-to-Work Opportunities Act and its influence on the way
education is presented to students in today's world. It began with writers such as Dewey
and Taylor who pioneered education that related to the workplace. It went on to discuss
Skinner's behaviorism theories and contemporary behaviorism as outlined by Todd and
Morris. Bennis talked about the challenges of the "me" generation of the 1980s. A
Nation at Risk (1983), which alerted educators to the changes that are needed in our
educational system, is noted as an important impetus for improvement. The chapter
continued with a discussion of the works of Hull and Parnell, and studies done by several
committees commissioned by governmental agencies to study changes in education for
the workplace. The writers discussed issues such as employer needs, workplace
readiness, and the impact of the global economy on the U.S. workforce.

Included as central themes were topics related to contextual learning, education
for the workplace of the future, changing demographics in the world marketplace, the
relevance of today's education, and how these topics led to the legislation which created
the School-to-Work Opportunities Act. The topics covered were those which were
relevant to the central theme of the research, namely teacher externships and how they
impact education.
The chapter ended with a description of the teacher externship programs at various universities. The externship programs at UNLV and UNR were described in detail. These programs were central to this study and provided the data reported in the later chapters.
CHAPTER THREE

RESEARCH METHODOLOGY

This chapter describes the research methodology, data collection techniques and methods of analysis of the data used to determine the effectiveness of teacher externships in fostering changes in curricula and teaching methods. Also included is a report on the dissemination of the findings.

Data Collection

In order to determine the changes implemented by teachers as a result of participation in the summer externship program and UNLV and UNR, a survey was developed and mailed to all the 226 Nevada educators who participated in the externship program and enrolled in the associated university program for graduate credit. The survey was developed from existing surveys used at UNLV, UNR, and the Community College of Southern Nevada. These surveys, used to evaluate the specific externship programs, were modified and expanded to meet the needs of this research. The survey was approved for human subject protocol by Dr. William E. Schulze, Director of the UNLV Office of Sponsored Programs, on July 17, 1998.

The survey instrument had two parts; part one asked specific questions which were answered on a modified Likert scale numbered one to four, while part two asked several open-ended questions which were answered in short written form (McMillan & Schumacher, 1997, p. 257). As recommended by McMillan & Schumacher (1997), the
validity and reliability of the instrument were determined through a review by experts which included the administrators of the two Nevada externship programs and other educational faculty from UNLV.

A pilot study was then conducted involving five teachers from the Community College of Southern Nevada who participated in the summer externship program but did not enroll in the related university course. This gave the researcher an opportunity to validate the survey instrument without involving any of the actual population group (Gall et al., 1996). This tested the “appropriateness, meaningfulness, and usefulness of specific inferences made from test scores” (Gall et al., 1996, p. 773).

The final survey instrument (see Appendix A) was then mailed to all members of the target population. A cover letter (see Appendices B & C) was included outlining the importance of the study and how the results were to be used (McMillan & Schumacher, 1997). Additionally, a self-addressed, stamped envelope was included to encourage a prompt reply. A follow-up card (see Appendix D) was mailed, two weeks following the initial mailing, to all those who had not replied. Subsequently, a second letter (see Appendix E) was mailed to those who had still not responded. This included a second copy of the survey instrument along with another return envelope. When possible, a follow-up phone call was made to further increase the return rate.

Of the 226 surveys mailed, a total of 114 were received for a return rate of slightly over 50%. There were ten letters returned because the addressee was no longer at that address. Another 14 were returned by the post office with a new address indicated. These were then re-mailed to the new address. The return rate was approximately the same for participants from the UNLV program and the UNR program.
Method of Analysis

Quantitative analysis methods were used to report the results of the first portion of the study. These included measures of central tendency (Gall et al., 1996). The Statistical Package for the Social Sciences (SPSS) was used for analysis of the data collected. This particular software program was specifically designed for the statistical analysis of data gathered in social science research. For this study, the descriptive statistics reported include the mean and standard deviation (Gall et al., 1996).

Additionally, demographic information was collected, including years taught, grade level (secondary vs. post secondary), and subject area (academic vs. occupational). The study also compared results from teachers who previously worked in their field with those who have never previously been employed in an area related to their teaching assignment. The results from the different groups were compared to determine differences in response based upon these demographic factors (McMillan & Schumacher, 1997).

In analyzing the differences in responses with regard to the demographic variables, the t test was used. The t test is used by researchers to “compare the mean scores of two samples to determine whether they are significantly different from each other” (Gall et al., 1996).

McMillan & Schumacher (1997) further noted that open-ended questions should be reported as descriptive data and should be used to further explain the extent of possible changes. To accomplish this, open-ended questions were included in each questionnaire.

The information gathered from these questions was categorized using open coding. Open coding refers to the method used to break down data into discrete parts,
then closely examining the data and comparing for similarities and differences (Strauss & Corbin, 1990, p. 62). Coding was done by sentence or full response, whichever was more appropriate for the particular answer. The method used to identify the codes was data reduction. The responses were first read three times to begin to determine the emergence of repetitive responses or central themes. On the fourth reading, notes were made regarding repeated themes or topics. The fifth reading confirmed these topics and responses were grouped, or coded, according to central themes or topics. These were then reported by percentages, including narratives and examples of specific answers.

In addition to the quantitative methods outlined above, the researcher personally interviewed ten of the candidates (Gall et al., 1996). These interviews involved five secondary and five postsecondary teachers selectively chosen to include differing demographic groups, such as, subject area and years taught. The results were complied and reported in narrative form.

In the final analysis, the interview results were compared to the information gathered through the survey instrument and used to elaborate on the findings of the quantitative research (Glazier & Powell, 1992, p. 105). The analysis of these data further validated the results of the quantitative study by presenting narrative supporting evidence for conclusions derived from the study (Gall et al., 1996, p. 574).

Report of Findings

Upon completion of the study, the results were disseminated to the administrators of the UNLV and UNR teacher externship programs, the membership of the Northern Nevada School-to-Work Partnership and the Southern Nevada School-to-Careers Partnership, as well as any others who request the information. There are also plans to
publish the report and to present the findings at professional conferences, such as, the American Vocational Association annual convention and the National Tech Prep Network annual conference.

Summary

This chapter presented a description of the research methodology used in the study of the effectiveness of teacher externships. It described the target population, data collection methods and statistical treatment of data. It further described the methods used to test the validity and reliability of the survey instrument. The results of the data analysis and discussion of findings are presented in Chapter Four.
CHAPTER 4

FINDINGS OF THE STUDY

Quantitative Analysis

The survey contained 13 questions that were answered on a modified Likert scale. This four-point scale contained choices of significant, moderate, minor, and none; with the number four as significant and the number one indicating none. Using the Statistical Package for the Social Sciences (SPSS), descriptive statistics including frequency, mean, median, and standard deviation were calculated for each question. The chart on Table 1 lists these calculations in descending order by mean, the highest mean indicating the greatest amount of change or benefit from the externship program. The results were as follows:

**Question 8. Indicate the amount of benefit you feel you derived from the externship.**

This question received the highest mean score of all the questions. The mean was 3.4649, with a median of 4.0 and a standard deviation of .6676. These data clearly show that nearly all of the respondents derived a significant amount of benefit from the externship experience. In reviewing the frequency table, it was noted that only one individual stated that they derived no benefit, while 63 reported a significant benefit. This was also the only question with a median score of 4.0, the highest possible.
Table 1

Quantitative Analysis of Survey Responses

<table>
<thead>
<tr>
<th>QUESTION</th>
<th>MEAN</th>
<th>MEDIAN</th>
<th>STANDARD DEVIATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount of Benefit</td>
<td>3.4649</td>
<td>4.0</td>
<td>0.6675</td>
</tr>
<tr>
<td>Communication Skills</td>
<td>3.2719</td>
<td>3.0</td>
<td>0.8651</td>
</tr>
<tr>
<td>Teamwork</td>
<td>3.2193</td>
<td>3.0</td>
<td>0.8999</td>
</tr>
<tr>
<td>Attitude</td>
<td>3.2105</td>
<td>3.0</td>
<td>0.9637</td>
</tr>
<tr>
<td>Career Instruction</td>
<td>3.1745</td>
<td>3.0</td>
<td>0.8227</td>
</tr>
<tr>
<td>Problem Solving</td>
<td>3.1667</td>
<td>3.0</td>
<td>0.8916</td>
</tr>
<tr>
<td>Initiative</td>
<td>3.1228</td>
<td>3.0</td>
<td>0.9789</td>
</tr>
<tr>
<td>Contextual Learning</td>
<td>2.9912</td>
<td>3.0</td>
<td>0.8570</td>
</tr>
<tr>
<td>Amount of Competencies</td>
<td>2.9649</td>
<td>3.0</td>
<td>0.9016</td>
</tr>
<tr>
<td>Absences</td>
<td>2.8947</td>
<td>3.0</td>
<td>1.1317</td>
</tr>
<tr>
<td>Tardiness</td>
<td>2.8421</td>
<td>3.0</td>
<td>1.1489</td>
</tr>
<tr>
<td>Curricular Changes</td>
<td>2.8158</td>
<td>3.0</td>
<td>0.8577</td>
</tr>
<tr>
<td>Instructional Changes</td>
<td>2.6667</td>
<td>3.0</td>
<td>0.8791</td>
</tr>
</tbody>
</table>
Question 6. As a result of concepts learned in your externship, indicate how much change you made in your emphasis to students on each of the following topics:

Communication Skills.

This question received the second highest mean scores. The items in Question 6 dealt with workplace ethics and workforce readiness issues. Overall, they were deemed very important issues by a majority of teachers.

Communications skills were the most important of these, garnering a mean score of 3.2719, a median of 3.0, and a standard deviation of .8651. In reviewing the open-ended questions, it was apparent that teachers placed a great amount of importance on listening and speaking skills, all of which are a vital part of good communications skills.

Teamwork.

The question of teamwork proved to be very important to the teachers who responded to the questions. As the third most important concept, teamwork had a mean of 3.2193, a median of 3.0, and a standard deviation of .8999. Teachers found that those in the workplace were expected to work in groups and therefore teamwork proved to be one of the most important concepts to be learned. Some indicated in their answers to the open-ended questions that they had not realized how little time was spent in the classroom learning to work together. The skills needed to get along with co-workers, and fellow students, became part of the lessons to be learned.

Attitude.

As a result of concepts learned in your externship, indicate how much change you made in your emphasis to students on each of the following topics:
The fourth most important concept involved attitude. If an individual had a positive attitude, was willing to follow directions, and presented themselves in a polite manner to the public then they were considered potential hiring material by employers. Teachers noted that an attitude that showed a willingness to change, if needed, and a positive outlook proved to be most important to employers.

**Question 4. Indicate the amount of change you noticed in your attitude toward career related instruction as a result of the externship.**

Regarding career related instruction, a majority of teachers surveyed indicated they noticed a significant change in their attitude toward career related instruction as a result of the externship experience. In this case, the mean was 3.17454, the median 3.0, and the standard deviation .8227. Throughout their comments, teachers indicated they were adding career information and interviewing skills to their curriculum.

**Question 6. g. As a result of concepts learned in your externship, indicate how much change you made in your emphasis to students on each of the following topics: Problem solving.**

Regarding problem solving, a majority of teachers surveyed reported that problem solving skills were some of the most important things a student should be able to master to be successfully employed. The survey scores on this question showed a mean of 3.1667, a median of 3.0, and a standard deviation of .8916. The importance of this was further supported by responses to the questions posed later in the questionnaire. Many teachers said they had enhanced their curriculum and teaching methods by incorporating problem solving techniques and critical thinking skills.

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Question 6. c. As a result of concepts learned in your externship, indicate how much change you made in your emphasis on each of the following topics:

Initiative.

The next most important area was that of individual initiative. The results showed that the mean response on this question was 3.1228, the median was 3.0 and the standard deviation was .9789. This response indicated that the majority of respondents felt that initiative was an important characteristic in job performance. Many teachers began to stress student responsibility and initiative in the classroom.

Question 5. As a result of the externship experience, indicate the amount of contextual learning concepts you implemented in your classroom to show students the relevance of material learned in class.

The next most important change in teaching concerned the area of contextual learning. The data on this question showed a mean of 2.9912, a median of 3.0, and a standard deviation of .8570. These statistics indicate that teachers implemented a moderate amount of contextual learning experiences into their classrooms as a result of what they learned on the externship. The word relevant came up again and again in teacher’s own comments.

Question 3. Indicate the amount of competencies you gained in your discipline as a result of your externship.

In answering this question, the responses showed a mean of 2.9649, a median of 3.0, and a standard deviation of .9016. This indicated that the teachers felt, as a whole, that they gained new competencies in their field as a result of the externship. The
competencies varied from experience with new equipment to learning new ways of
dealing with workplace problems.

Question 6. b. As a result of concepts learned in your externship, indicate how much
change you made in your emphasis to students on each of the following topics:

Absences.

This topic rated number ten in importance to teachers. Respondents reported a
mean of 2.8947, a median of 3.0, and a standard deviation of 1.1317 in this category.
This indicates that teachers deemed good attendance a very important characteristic in
student’s ability to get and keep a job, however, the amount of change implemented in
the classroom was related to how much emphasis the teacher had already been placing on
this issue. In later comments, many teachers stated that they already stressed attendance
so they made no changes in this regard.

Question 6. a. As a result of concepts learned in your externship, indicate how much
change you made in your emphasis to students on each of the following topics:

Tardiness.

The eleventh most important concept concerned tardiness. Regarding this issue,
the mean was 2.8421, the median 3.0, and the standard deviation 1.1489. Again, these
statistics indicate that the teachers believed that tardiness was an important issue in
successfully preparing students for the real world. It was noted that the scores on this
concept were almost identical to the scores on the attendance question and that many
teachers were already putting an emphasis on tardiness and therefore made no changes.
As later shown in the open-ended responses, teachers noted that reporting to work on
time was a significant element in obtaining a high score on work performance and keeping a job.

**Question 1. Indicate the amount of curricular changes you made as a result of your externship experience.**

This question ranked number twelve in importance for teachers. The mean for this response was 2.8158, the median 3.0, and the standard deviation .8577. This response shows that a number of teachers reported that they made a moderate amount of changes in their curriculum as a result of what was learned on the externship. The ability to update their curriculum and materials to current workforce standards was an important element to many. Others remarked that they could now use “real world” examples to reinforce classroom learning.

**Question 2. Indicate the amount of instructional changes you made as a result of your externship experience.**

The least most important change appeared to be in the area of instructional changes. In this case, the mean was 2.6667, the median 3.0, and the standard deviation .8591. This still indicates a fair amount of change based upon what was learned on the teacher’s externship. Even this, the lowest average mean, shows that some change was implemented because of the externship experience.

When change was implemented, it was most often mentioned that presentations were added and they implemented more hands-on activities for students.

Overall, the educators responding to the survey indicated that they derived a significant amount of benefit from the experience. They also reported significant to
moderate changes is their curriculum or instructional delivery methods in seven of the ten categories, and some to moderate changes in the remaining six categories.

As part of the quantitative analysis, the responses were compared according to four demographic factors. The $t$ test was used to compare the means of each group to determine if demographics were responsible for any significant difference in the educators' responses. A $t$ test was performed for each group on all of the thirteen quantitative questions. The demographic factors included number of years of teaching experience (more than ten years vs. less than ten years), grade level (K-12 vs. postsecondary), subject area (academic vs. occupational) and whether or not the educator had ever worked in their field prior to the externship.

The results showed that this was, in general, a very homogeneous group with little differences that were accounted for by demographics. The $t$ test and related test of statistical significance identified only two items, out of the fifty-two tested, that may indicate a slight degree of significant difference based upon demographic factors.

In comparing the mean scores of academic vs. occupational teachers, a difference was found in the scores related to the amount of change in the teacher’s attitude toward career related instruction. This item had a $t$ test score of 2.121 and a 2-tailed significance level of .036. The occupational teachers showed a mean score of 3.0548, while academic teachers reported a mean of 3.3902. This can be accounted for by the fact that most occupational teachers have always felt that career related instruction was important while many academic teachers have not made this a priority. Based upon this assumption, academic teachers would be more apt to note a change in attitude based upon the externship experience.
The other difference became evident when comparing K-12 teachers to postsecondary teachers. This comparison again showed a difference in the change in attitude toward career related instruction. In this instance, the K-12 teachers had a mean score of 3.2976 while the mean for the postsecondary teachers was 2.8333. The analysis of these differences accounted for a $t$ test score of 2.728 and a significance level of .007. Since many postsecondary instructors are traditionally preparing students to enter the workforce while traditional K-12 teachers concentrate on preparing students for the next education level, this difference is understandable.

Response to Open-Ended Questions

The analysis of the answers to the open-ended questions outlined the numerous benefits derived by teachers as a result of participation in the externship. These responses also described the changes which teachers implemented as a direct result of concepts learned during the externship. Significant themes, or concepts, were repeatedly mentioned throughout the responses. The significant responses to each of the questions are summarized and shown on accompanying tables.

Question 1. What is the greatest benefit you derived from this program?

The response to this question identified four main benefits or concepts which teachers deemed most important. As shown on Table 2, the answers indicated that 27% of the respondents felt that the greatest benefit to the teacher was an updating of their own skills. Selected responses from teachers included the following:

- “I was able to familiarize myself in areas that I did not have any skills.”
- “learning the newest operating and servicing procedures used in our industry”
- “learning new software packages - having the time to sit down and teach myself and explore”
- “the opportunity to be abreast of current and future educational/work related trends”
Table 2

**Most Frequently Identified Program Benefits**

<table>
<thead>
<tr>
<th>BENEFIT</th>
<th>PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Updating of Teacher Skills</td>
<td>27%</td>
</tr>
<tr>
<td>Learning Skills Students Need</td>
<td>25%</td>
</tr>
<tr>
<td>Business Contacts</td>
<td>16%</td>
</tr>
<tr>
<td>General Career Knowledge</td>
<td>16%</td>
</tr>
<tr>
<td>Real World Experience</td>
<td>10%</td>
</tr>
<tr>
<td>Specific Career Information</td>
<td>03%</td>
</tr>
<tr>
<td>Graduate Credit</td>
<td>03%</td>
</tr>
</tbody>
</table>
• "being able to update my technical skills and gain expertise in current technologies being used to diagnose various clinical conditions"
• "exposure to new methods, materials and administrations"

The second most frequent response had to do with the skills their students needed to meet the needs of industry. In the surveys, 25% indicated that the greatest benefit they derived from the program was the acquisition of a clear picture of the skills students needed in their chosen area. Direct comments were as follows:

• "I saw great emphasis on speaking and listening skills."
• "perspective on employer’s standards for entry-level job applicants”
• “how CNA’s are selected and interviewed”
• “seeing exactly what would be expected of my students in a commercial art career”
• “learning the expectations of the workforce”
• “reminding myself of the skills students will need after graduation”
• “talking with employers about what they look for in new hires”
• “I have never worked in retail businesses so this was an opportunity to see first hand the skills my marketing students needed be successful.”
• “People in the workplace made me very aware of the skills expected from our graduates”.
• “actually see what employers are looking to find for future employees”
• “I now know that what I do in class will better help the students on the job.”
• “I was teaching information that was very unimportant.”

The third most significant response dealt with the area of business contacts and networking opportunities. Among the responses, 16% indicated that the opportunity to make business contacts and network with others in their industry was the most important benefit. Selected responses included:

• “making contacts and seeing what was going on”
• “joining with the world of work to share ideas on how best to educate kids”
• “access to donation of material and the expertise of the craftsmen that I worked with”
• “communication with the business world”
• “networking with local business people who in turn became sponsors of my program”
• “I made professional contacts in the field of architecture and design. I have one architect (who I met during my externship) who comes to my classroom to advise my architecture students once a week.”
The fourth major response dealt with the teacher's exposure to the "real world".

In 10% of the responses, teachers found real world experience to be their greatest benefit. Some of the responses were:

- "the hands-on, real world experience and knowledge"
- "Primarily, it validated what I was doing in the classroom."
- "The greatest benefit was to have my eyes opened to the world of work. I learned to appreciate some of the problems of parents."
- "kept me in touch with the real world"
- "learning what actually is going on in offices today"
- "seeing real world experience here in town"

The remainder of the responses indicated an increase in career awareness and other career information as a result of the externship. Those percentage responses were as follows: 3% learned specific career information, 3% were interested in earning the graduate credit and 16% of the respondents had mixed responses indicating some degree of general increase in career knowledge”.

**Question 2. Describe changes you made in curriculum as a result of the externship experience.**

Of those responding, 55% reported that they made significant changes or additions to their curriculum as a result of the externship. In identifying the specific changes or additions, several main themes emerged. The respondents who reported making changes in curriculum identified the specific type of changes. These are depicted in Table 3.

In indicating the type of changes, 34% stated that they added new curriculum to their program. The comments included:

- "I have been active in developing new sociology curriculum that responds to fieldwork and critical thinking skills for students."
- "put in a section (a large one) on sales and sales techniques"
Table 3

Types of Curricular Changes Implemented by Teachers

<table>
<thead>
<tr>
<th>CHANGES</th>
<th>PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Curriculum</td>
<td>34%</td>
</tr>
<tr>
<td>Added Communications Skills</td>
<td>17%</td>
</tr>
<tr>
<td>Added Problem Solving</td>
<td>17%</td>
</tr>
<tr>
<td>Added Career/Interviewing Skills</td>
<td>14%</td>
</tr>
<tr>
<td>Updating Curriculum and Materials</td>
<td>13%</td>
</tr>
<tr>
<td>Integration of Academic/Occupational</td>
<td>05%</td>
</tr>
</tbody>
</table>
• "proposed revamping entire program curriculum to meet needs in industry"
• "developed curriculum for Financial Services Representative based on industry competencies"
• "added a course in Photographic Business Management to the program"
• "development of new course on professional traits was based on findings"

The next most prevalent addition to curriculum took place in the area of communication skills. When tabulating the results, it was found that 17% added emphasis on communication skills to their curriculum. Their responses included:

• "added more time management, speaking and listening emphasis in communication"
• "more communication"
• "I have concentrated on presentation of person, speaking ability, eye contact, self-esteem and confidence more since the externship."
• "I have been working on developing listening skills more since these are used more in the work place."
• "more emphasis on speech requirements"

The participants indicated that they learned the importance of problem solving in industry. The findings showed that 17% of the respondents added problem solving to their curriculum. Selected responses included:

• "attempting to incorporate more problem solving exercises and classroom dialogue"
• "lab work has more of a thought process, for problem solving"
• "life skills, problem solving, etc. became primary instead of secondary"
• "I use more of a problem solving approach to class assignment and projects."
• "developed exercises that encourage students to use common sense techniques to solve problems"

The addition of career information to the curriculum was the next most prevalent change. The tabulations showed that 14% of the changes included the addition of career information and interviewing skills. Selected items include:

• "added interviewing component"
• "I designed an intensive 8th grade career unit."
• "unit on interviewing, resumes"
• "I started a career unit and extended the theme throughout the year."
• "more emphasis on personal disciplines, employability skills, work ethics"
• "more career orientation"
Updating curriculum, materials and equipment was also an important result. Of those teachers noting changes, 13% listed updating as their most significant change. They reported the following:

- "I updated my education about the technology and education needed to secure the jobs I observed."
- "Information which led to the purchase of software that is most widely used in the art field."
- "The procedure that I use to demonstrate an oil change has been changed drastically."
- "Updated software to match that being used in the real world."
- "New materials for class use."
- "Updated all courses dealing with wildland fires."

The last area of change was in the integration of academic and vocational subjects. In reporting changes, 5% reported that integration of subjects was a significant change in curriculum approach. Teachers wrote:

- "For my civics classes we spend a certain amount of time on social services now."
- "Tied in assembly line production to our units in social studies and Junior Achievement."
- "Wider knowledge of non-scientific offerings."

**Question 3. Describe the changes you made in your teaching methods/strategies as a result of the externship experience.**

The responses showed that 61% of the teachers made changes in teaching methods and strategies. The specific types of changes are shown on Table 4.

The most significant change noted had to do with making the curriculum more relevant. Of those making changes, 37% said they changed their methods to make instruction more relevant to the real world. Teachers gave the following responses regarding these changes:

- "Revised all teaching objectives to make it current with workplace reality."
- "More emphasis on the real world application."
Table 4

Changes Identified in Teaching Methods

<table>
<thead>
<tr>
<th>CHANGES</th>
<th>PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instruction Made Relevant</td>
<td>37%</td>
</tr>
<tr>
<td>Increased Hands-on Projects</td>
<td>17%</td>
</tr>
<tr>
<td>More Teamwork, Group Projects</td>
<td>15%</td>
</tr>
<tr>
<td>Guest Speakers</td>
<td>15%</td>
</tr>
<tr>
<td>Increased Presentations, Projects</td>
<td>11%</td>
</tr>
<tr>
<td>Added Field Trips</td>
<td>05%</td>
</tr>
</tbody>
</table>
• “I felt more sure of the assignments made and how they connected to ‘real life’.”
• “I was able to relate the relevance of assignments to the work world.”
• “developed a more realistic approach - job specific”
• “always can share a story of the whole experience - ‘real life’ situations add relevancy to the topic and the kids think it’s interesting”
• “I always relate school lessons, incidents, etc. to the work place.”

The second most important change the teachers made in their methods involved adding more hands-on projects. Tabulations showed that 17% of the teachers increased their use of hands-on projects. Some individual responses were as follows:

• “more hands-on type teaching methods”
• “I conducted ‘hands-on’ handwashing sessions.”
• “really began hitting on lab (hands-on) because of what I mentioned above”
• “more hands-on activities”
• “more hands-on, functional skill practice”
• “I added more hands-on work as opposed to just written.”
• “more hands-on relevant activities, simulating real life situations”
• “less lecture - more doing”

Teamwork activities were added by a significant number of teachers. In 15% of the responses, teachers noted that they increased teamwork assignments. The comments included:

• “students were given more teamwork tasks, allowed to work together and compete with other teams”
• “I increased use of groups, teams, cooperative learning.”
• “upgraded the tools, work in teams”
• “I put more emphasis on punctuality, teamwork and dependability.”
• “more group projects, group activities and group based evaluations”

As a result of contacts made with business and industry representatives, 15% of the teachers reported that they now bring guest speakers into their class. Teacher’s responses were:

• “more guest speakers from work areas that relate to subject taught”
• “bring in guest speakers”
• “I used lecturers to come (sic) from the community to my classes.”
• “more speakers, etc. from the field”
"include guest speakers on the subject area as part of lesson plan"
"for example, I try to have more guest speakers..."
"integrated guest speakers to augment my lessons"

Changes in teaching methods also included an increase in the use of projects and presentations. In 11% of the answers, teachers reported an increase in presentations and the use of projects. Specific comments included:

- "more active student participation via case/paper presentations"
- "I have changed assignments to reflect jobs that employees would be expected to complete."
- "more presentations"
- "added small business project in technology"

Field trips were added by a number of teachers. The responses indicated that 5% of the teachers increased class field trips. Some teachers wrote:

- "A colleague and I have received a School to Career mini grant ..., the finale being a field trip to cover Rochester mine."
- "gotten more involved with our internship program, field trips to these businesses"
- "will be including more field trips"

Questions 4. Did you change your emphasis on career information and work ethics as a result of the externship experience? If so, what were the major changes?

More than half of the respondents reported making some changes in their emphasis on career information, work ethics or both. The surveys showed that 55% of teachers increased their emphasis on career information or work ethics as a result of their externship. Table 5 shows the percentages of teachers who added career information, work ethics information, or both to their curriculum.

In answering the question, 37% of the teachers reported adding work ethic issues to their curriculum. These included items such as more emphasis on punctuality,
Table 5

Changes in Emphasis on Work Ethics and Career Information

<table>
<thead>
<tr>
<th>CHANGES</th>
<th>PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emphasis on Work Ethic</td>
<td>37%</td>
</tr>
<tr>
<td>Emphasis on Career Information</td>
<td>30%</td>
</tr>
<tr>
<td>Added Emphasis on Both</td>
<td>33%</td>
</tr>
</tbody>
</table>
stressing a lower absentee rate, taking more responsibility, and paying greater attention to a student’s attitude. Some representative responses included:

- “I stressed to my students the two most important things on a job are 1 - be on time, 2 - do not miss work.”
- “The students got tired of my tardy (job-related) work ethic speech.”
- “I particularly emphasize work ethics in my classes…”
- “work ethics (especially teamwork and attitude)”
- “emphasized ethical responsibilities of student in workplace”
- “work ethic was brought up daily”
- “Work ethic was not part of my curriculum until I saw its importance.”
- “Yes, absences count heavily, getting work done, personal responsibility is stressed.”

Of those teachers noting a change in emphasis in career information and work ethic, 30% wrote that they made a major change in the amount of career information they gave in their classes. In this regard, the teachers reported:

- “fine-tuned a major career skills interdisciplinary unit”
- “career information will be emphasized”
- “students now must identify what their career aspirations are at the beginning of the course”
- “increased career awareness information and discussion with each unit”
- “Yes, the experience enables me to answer student questions about each profession in much more detail than before. I also feel I can help match students with professions based on more solid information.”

In 33% of the answers, teachers indicated that they stressed both work ethics and career information more than before. Many teachers also wrote that they already talked about the subjects in their classes but now they felt more confident about giving information to students. It tended to reinforce the importance of these subjects. A sample of some of the comments included:

- “discuss them more in all classes”
- “enhanced and more emphasis with seniors”
- “I presently include the above but am placing a lot more emphasis on these items.”

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Question 5. Would you like to participate in another externship?

An overwhelming majority of the educators, 82%, reported that they would like to participate in another externship. Of those answering “no” to this question, several wrote that they were leaving the area or that they would be interested again at a later date. A few added comments such as:

- “almost should be mandatory for general education faculty”
- “I thought it was a wonderful experience.”
- “not at this time, others should go”

Question 6. If you were to participate in another externship, what changes would you make in the program?

As shown on Table 6, 49% of the respondents reported that they would make no changes in the program. Among those answering “none”, several added comments as follows:

- “none, excellent program”
- “none at this time, I loved my assignment”
- “no changes, I enjoyed my externship The program was a real eye opener for me”
- “recommend that voc ed (sic) teachers participate in this program every 2 years”
- None! I have my Master’s plus about 60 credits...this externship program was the BEST & most worthwhile class I’ve ever taken.”

The survey also showed that there were several distinct areas where some of the participants would like to see changes. The first of those areas had to do with site selection. 12% of the respondents felt the program would be more beneficial if there had been more choice in site selection or a better placement. Some of the comments were:

- “I would like to have more input as to where I was placed.”
- “maybe more than one site”
- “let participants make arrangements for working with who they want to work with”
- “select an area that would be more challenging”
Table 6

**Suggested Changes in Externship Program**

<table>
<thead>
<tr>
<th>CHANGES</th>
<th>PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Changes</td>
<td>49%</td>
</tr>
<tr>
<td>Misc. Changes</td>
<td>25%</td>
</tr>
<tr>
<td>Better Site Selection/Placement</td>
<td>12%</td>
</tr>
<tr>
<td>Change Classroom Portion</td>
<td>07%</td>
</tr>
<tr>
<td>Better Business Preparation</td>
<td>07%</td>
</tr>
</tbody>
</table>
• "I would want to pick the operation, or at least have input into quality level of operation."

A number of the teachers wanted to change the classroom portion of the externship. In this area, 7% of the teachers wanted to make some changes in the classroom portion. A sample of the responses are as follows:

• "use class time to discuss things like child labor laws, etc."
• "at wrap-up make sure everyone gets a fair share of time to share and tell their own experiences"
• "We met on Fridays - teachers only. We needed copiers, computers to share & consolidate all the materials, ideas we had gotten at 'work'."
• "Even tho (sic) I enjoyed hearing about other people's experiences, I felt that some got long winded and we spent a lot of time listening to them rambling."

The last area that was singled out by participants had to do with the preparation of the businesses that would receive the externs. With regard to this issue, 7% of the teachers would like to see more time spent in preparing the businesses that will "hire" the educators. Some of their comments included:

• "the business should be more informed and prepared - not necessarily the contact person - but the rest of the people the teacher is going to spend time with"
• "perhaps the participating businesses could be encouraged to provide more diversity"
• "I would want the business to be more prepared to offer training on a limited scale. At the firm I was at, the work was intense and rapid, leaving little time for interaction."
• "Make sure that the business host/employer is more clearly informed as to what the participant is there for and what their role is with the participant."

Throughout the surveys the negative responses were relatively few. In the remaining responses there were a mixture of comments. Of the returned surveys, 25% noted some items they felt would improve the program. These included a wide variety of issues, some of which are shown in the following comments:

• "more flexible time frames -most people are busy right after school is out"
• "as follow up, bring the employers back to schools"
• "work the liberal arts division further into the program"
• "Publicize faculty efforts! Let the community know what we are hoping to accomplish and how it may effect their future educational efforts."
• "more employer involvement at the educational institution to garner more possible internship options for students"

The overall impression, after reading the responses several times, was a very positive one. Most of the educators reported that the externship program made a significant impression on them and really opened their eyes to the "real world". As a group, the overwhelming indication was that the educators think the program is very worthwhile, should be continued and expanded so that more teachers could participate.

The information they were able to bring back to their students was very valuable. It gave them the opportunity to relate real life experiences to students when discussing careers, employer expectations and skills required by the workplace. Those teachers that had never been employed outside of education tended to use phrases like "a real eye opener", "made major changes in my curriculum" or "changed my methods of presentation". For teachers that had previously worked in their field, it was often seen as a reinforcement of concepts they were already teaching and they used terms like "putting more emphasis on..." or "updated my material".

Personal Interviews

The final data came from the personal interviews conducted with ten educators. There were five secondary and five postsecondary teachers interviewed and they were asked to elaborate on the same questions listed in the survey questionnaire. These responses served to further validate the conclusions drawn from the data collected from the mailed surveys.

A postsecondary photography teacher did his externship at a commercial
photography agency. He stated that a direct result of the externship was the development of a new business course related specifically to the photography business. This new course has already been approved by the college curriculum committee and will be taught in 1999. He feels that students need to be counseled more as to what a specific job really entails. As an example, he tells students that photography is not a nine to five job. It involves lots of nights and weekends and students must be aware of that before they enter the field. He also noted that a photographer should never call in sick. The instructor said, “the first time you don’t show up for an appointment you lose the client and never get them back. Through word-of-mouth, this could effect your entire business” (J. Pomeroy, Oct. 14, 1998).

Another postsecondary teacher interviewed normally teaches in the area of sociology. She did her externship in the juvenile court system and felt her experience enabled her to add a component on juvenile delinquency with real world examples to relate to her students. She was appalled at the number of 14 and 15 year olds who feel they have no future. After the externship, this teacher plans to work toward the goal of making sure education provides a future for these young students and that teachers get more involved (L. Foreman, Oct. 16, 1998).

A secondary photography teacher did his externship in a high volume, tourist oriented, photography lab. They were responsible for rapid development of souvenir photos to be given to tourists within one hour of taking the photo. He particularly wanted to work in this area because more and more business use automated processing equipment and he wanted to have experience on the equipment. The result was that he was able to make changes in his program to teach students entry-level job skills in automatic film processing. He was even able to acquire one of the processing machines...
as a donation from a business. In all, he felt the program gave him exactly what he was looking for in increased knowledge and skills. This teacher also noted that he enjoyed sharing ideas during the Friday sessions (C. Caples, Oct. 28, 1998).

A postsecondary teacher and counselor, who teaches College Success Skills, worked in the human resources department of a large hotel. One of the things that surprised him the most was learning from managers how difficult it was to find qualified personnel. The main complaint was that recent graduates, both high school and college, often lacked necessary written and oral communication skills. He was allowed to review applications and letters written to the department and found many university graduates who could not write a correct sentence. This type of information he is now passing on to his students and encouraging them to fine tune basic skills.

This educator also learned quite a lot about hiring practices. He found that, in his place of employment, the initial interviews were being conducted by individuals with no skills or training in interviewing methods. It seemed they were either recent high school graduates or retirees brought back into part-time employment. These individuals often had difficulty communicating themselves and trouble understanding concepts and categorizing ideas. He found this a “scary situation” and now tries to prepare his students to meet a variety of situations when applying for employment (L. Tanaka, Oct. 28, 1998).

Another postsecondary teacher in the area of environmental restoration did his externship in an unusual situation. He worked for a brand new, non-profit organization and helped them start the organization from the ground floor. He helped the group develop goals and a mission statement, and evaluated resources and grant opportunities. The organization was formed to develop new ideas and technologies in solar energy. The teacher came away from the experience with a new understanding of how to set up
this type of business and also with new technologies he learned in the process of doing the necessary research for the business. The result was that the teacher developed two new college courses, one on renewable energy and another on solar technology. These courses will be offered for the first time in the Fall Semester, 1999 (E. Eschner, Oct. 28, 1998).

The experience of a high school computer teacher in the data processing programming and operations department of a large hotel was more observation than actual, hands-on involvement. She acquired quite a bit of knowledge regarding the types of skills employers expect from entry-level employees. This, she feels, will enable her to better prepare her students for employment right after high school.

According the teacher, a real eye-opener to her was the fact that this employer values attitude even more than skills in an entry-level employee. The employer wants a drug free, responsible, hard worker and they will train them. She was told that they can train skills but not attitude. They need people who can think and who agree with the company philosophy, which includes company loyalty and realizing that the customer is always right (L. Shugars, Oct. 29, 1998).

A high school electronics teacher worked for IBM and was involved in the installation of new computers at various schools. He felt his greatest benefit was working with the industry leader on the latest technology. This updated his skills and enabled him to bring this information back to his students. Regarding employment issues, he learned that IBM would hire nearly anyone with certification as a Novell network administrator, regardless of age or education. He would recommend this experience for all teachers and even require it periodically for occupational instructors (R. Kirkland, Oct. 29, 1998).

The opportunity to participate in the grand opening of large new hotel property
was very exciting for a postsecondary hotel administration instructor. He now believes that it is very important for students to gain some work experience in various areas of a hotel before completing their education and seeking employment. There are so many different areas of employment in a hotel and a variety of experiences would give students a greater knowledge of opportunities. He was surprised at hearing how much difficulty management has in finding good employees. He learned that the employer looks at the act of just dropping off an application as part of the interview process, and inappropriate attire will be noted. He now spends more time discussing interviewing skills with students, including what to wear (L. Wright, Oct. 29, 1998).

In the area of health occupations, a secondary teacher discussed her experiences working in a nursing home. This teacher had recently come from the health industry; however, her experience had been as an Registered Nurse in an acute care facility only and she found herself teaching students how to be successful Certified Nursing Assistants. Her students often found employment in nursing homes and she wanted to participate in that type experience to determine the skills needed to gain employment for her students. She learned quite a bit regarding the skills level required of entry level employees. One of the strongest comments concerned the placement site itself. It appears that she was encouraged to seek a more challenging employment opportunity when it was the lower level job that was unfamiliar to her, and the one she needed to explore. She strongly believes that the educator must have input into the placement and preferably a choice of locations (B. Eckland, Oct. 30, 1998).

The final teacher interviewed was a ninth grade English teacher from Northern Nevada. Her externship was at a television news station in the Reno area. She was a member of the pilot class for the externship program three years ago and felt very
fortunate to have had such an exceptional placement. In her job she was given a wide variety of duties that dealt with writing and producing a news program. Some of the other teachers participating the first year were disappointed because they were given little to do and could only observe.

The major concepts she brought back to the classroom included the importance of basic skills, teamwork, and problem solving. As a result of the program, she now has her students participate in group activities and role playing; with an emphasis on setting priorities and meeting deadlines. She noted that her students could complete a worksheet perfectly but when faced with a problem which required making a decision, they were lost. This prompted her to add a number of problem solving activities to her curriculum.

Regarding the program itself, she would like to participate again. The only complaint from fellow educators was that the businesses were not well prepared. Many did not know what to do with the teachers. She related that another teacher, who had an exceptional experience, was employed at Sierra Nevada Power. Sierra Nevada Power structured their program so that the educator had a specific task assigned to her, was given the appropriate materials to complete it, and was expected to produce a quality product within the given time frame. It was a very positive and rewarding experience for the teacher and she recommended this be used as a model. A last comment included a recommendation that an employer handbook be developed to assist businesses with their role in the externship program (C. Bonner, Nov. 2, 1998).

Summary

The survey results overwhelmingly support the benefits of the summer externship program for educators. The three different types of responses; quantitative, open-ended
questions, and personal interviews, resulted in the same positive results and verify the validity of the research. In each instance, the same statements and important items were noted again and again. The results also showed that there was no significant difference between the various demographic groups; it proved to be equally beneficial to all educators regardless of subject area, years of teaching experience, grade level or previous work experience.
CHAPTER 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

The teacher’s externship program in Nevada was designed to “provide teachers…with information on current business and industry skills, competencies, knowledge and trends through real-life experiences in an actual working environment” (McClain, 1996, p.20). It also endeavored to “help teachers to make their instruction more relevant in preparing students for the world of work ” (Luft, 1997,p. 325). Further goals involved providing students with more accurate career information so that they may make informed decisions regarding their future. This study was designed to analyze the results of the Nevada externship program to discover what changes were subsequently made by educators and whether or not they accomplished the program goals.

Discussion of Results

As stated earlier in the report, the purpose of this study was to measure whether or not participation in the summer externship program led to changes in the way educators taught students work/career related knowledge, skills, and attitudes. It was also designed to address the issue of relevance by determining whether teachers made changes in curriculum and delivery methods in order to demonstrate to students the connections between knowledge learned in the classroom and competencies required in the workplace. Additionally, the study measured changes in teacher’s attitudes toward the
importance of work ethics. A final goal was to determine whether or not the federal School-to-Work dollars, spent on the teachers externship programs, made an impact on the improvement of career preparedness education.

There were seven research questions which the study was designed to answer. The original research questions and their subsequent results are as follows:

1. How did the educators, who participated in the externship, perceive the experience?

This particular question received the highest positive rating of all. The overwhelming response was that this program was very beneficial to both occupational and academic educators. Many respondents thought all educators would benefit from the program and it was mentioned that occupational educators should be required to work in business and industry every couple of years to remain up-to-date in their field.

2. Did the teachers report a change in their attitudes toward career related instruction as a result of the externship experience?

A majority of educators expressed a significant amount of change in their emphasis on career related instruction. The most common change was the addition of interviewing skills after finding out how employers actually conducted the interviews and what employers found most important. The concept of proper dress and a positive attitude were the first steps to finding employment. If the students don’t present themselves properly they will never get the chance to display their skills. Other career related issues regarded being able to tell students, first hand, what a particular career entailed and what other options were available in particular areas.
3. Did the teachers implement curriculum changes in their classroom as a result of the externship?

This result showed a moderate amount of change in the classroom. Most teachers used the experience to update curriculum rather than make major revisions. The exception seemed to appear in a few postsecondary classrooms where instructors reported that they developed entire new courses based upon knowledge gained in the externship. These new courses were designed to bring the postsecondary program up-to-date with the needs of employers. The final benefit noted was that teachers could bring real world experiences into the classroom to show the relevancy of the curriculum material.

4. What changes did the educators make in their instructional delivery methods after the externship?

The least amount of change was noted in this area. Most teachers indicated that they added more presentations and hands-on activities. They also reported that, to some degree, they used less pure lecture and theory. The inclusion of "real world" experiences, mixed in with theory, added relevancy.

5. Did the teachers implement contextual learning concepts to show the student the relevance of material learned in class?

In reviewing the teacher’s responses, the word relevancy came up repeatedly. Teachers noted this when talking about relating actual job experiences to their students. It was again reported when discussing skills needed in the workplace. The overall impression was that this concept of relevancy was the main strand or fiber which was woven throughout the changes and new methods implemented as a result of the
externship experience. This seemed to be the most important concept and it set the
framework for nearly all the subsequent revisions.

6. What additional information did the teacher impart to their students regarding
work habits, workplace relationships, career education and other related topics as
a result of the summer experience?

The questions regarding work habits and workplace relationships were divided
into several different concepts. These concepts included: tardiness, absences, initiative,
teamwork, attitude, communication skills, and problem solving ability. All of these
topics received a strong response from educators who indicated that they did make major
revisions in their emphasis on these topics as a result of the externship. The strongest
response involved communication skills. Teachers were unanimously appalled at the
poor preparation shown by job seekers in the workplace. They also learned how
important these skills are on the job, particularly listening and oral communication skills.
Most teachers made revisions to all types of curriculum to include more basic
communications skills.

The next largest change came under the heading of teamwork. Teachers were
implementing many more group projects for students and emphasizing working together.
They had failed to realize that many workers could function very well alone but when
placed in a team situation they lacked the skills needed to be successful.

Those educators who were employed in the human resources departments, or who
were privy to hiring problems, quickly learned that a good attitude was vital. They
brought this back to their classrooms but reported frustration in attempting to teach this to
students. The teachers found it nearly impossible to teach students to have a positive
attitude and they felt that attitude was influenced more by family and environment than the classroom.

The concepts of problem solving and initiative were often approached together in giving assignments or planning new teaching strategies. The word responsibility came up frequently as teachers assigned jobs to students that would more closely mirror actual practices in the working world. Many reported giving students a group assignment which involved planning, dividing up duties and responsibilities, solving related problems, and working together to produce a final product or "job". This was often done in occupational classes, such as a graphics classroom, where the assignment could truly resemble a real work task.

The final concepts of absences and tardiness were often grouped together. While teachers realized the importance of these subjects, the externship itself did not have a significant impact on this area. Most teachers already stressed these subjects and knew they were even more important in the workplace than in the classroom.

7. If the educator were to participate in a second externship, are there any changes they would suggest for the program?

An overwhelming majority, 82% of the participants, would like to be involved in another externship. This positive response further serves to demonstrate the significant benefits derived from the program.

There were several areas where educators felt changes would be of benefit. These included more careful selection of work sites and better preparation for employers so teachers could be of more significant assistance or be placed in an area where they gained more relevant work experience. The classroom portions received mixed reports, some
enjoyed hearing the experiences of others and some found it redundant. Many noted that they did not care for the requirement of completing a paper or other written assignment, much as their students complained of the same type of requirements. It was interesting to note that the word relevant came up as frequently when talking about what the educators wanted from their work experience, as it did when they talked about what was important to bring to their students. When they became the students, they wanted the same type of experience. Just as students don’t want to be bored by just lecture, the teachers wanted more than observation and menial tasks in the workplace. They wanted relevance and significant tasks, not busy work.

The final issue regarding the actual externship was the overall impression that educators felt this should be a universal and recurring experience. Time and again they mentioned that their colleagues should participate. Several occupational educators noted that it should be required periodically for all occupational teachers just so they could stay abreast of changes in their industry. Another observation was that all academic teachers should be a part of the program, at least once, to see what the “real world” is like. Even those educators who stated that they did not personally benefit greatly, because they currently work in private industry on a regular basis, lauded the program and recommended it for others who did not have direct work experience.

Conclusions

The program is meeting, and even exceeding its goals in many areas. The goal of the program, to make teachers more aware of the skills and attributes needed in the workplace and to subsequently make relevant changes in the classroom, has been met.
Throughout the majority of responses, the theme of relevancy and "eye-opening" experiences came through frequently.

The program proved to be extremely successful in changing teachers' attitudes toward career education, which in turn will be passed on to their students. It also brought out the importance of "soft skills" in the workplace; such as getting along, having a positive attitude, and supporting company philosophies. Teachers realized that job skills are not enough, employees also must learn to work with one another, and this ability can have more impact on job retention than the actual work skills.

While the original assumption was that we might find a significant difference in the responses based upon demographic factors; such as, subject area, years of teaching experience, grade level, and previous work experience, this proved to be untrue. The group was very homogenous and there were no significant differences based upon demographic factors. This further shows the benefit to all educators, including those who have recently worked in industry. The focus on how they would relate this information to their students appeared to bridge the demographic differences.

While the two programs, sponsored by UNLV and UNR, differed somewhat in their structure, there appeared to be no significant differences in their success. There was no attempt to do a critical analysis of each program individually for purposes of comparison; however, it was noted that the responses were virtually the same. This similarity showed up in both the rate of response and in actual comments and perceptions of benefit. This further proves the value of the actual externship experience itself as opposed to the structure of the class or method of organizing the program.

The weaknesses that were evident involved instances where the teacher was placed in an inappropriate work situation. They still reported gaining knowledge but
noted they would have learned more from a placement that was closely related to their subject area. Also, the teachers who were able to perform actual, useful tasks gained more than those who spent more time observing. The fact that some businesses did not know how to use the teachers pointed to the value of more extensive business preparation.

The final conclusion derived from the study is that it should be expanded. All teachers should be encouraged to participate to the point that it should be mandatory for certain occupational educators. In order to accomplish this the teachers must be given an incentive to become a part of the program. Rather than reduce funding and making this voluntary, funding should be increased. The huge benefits, and “eye-opening” experiences, show that the federal funding was well spent.

The results of this study supports further spending to bring educators closer to the world of work. Whatever incentive is necessary, be it a stipend, credit, release time, or extra classroom assistance, it would prove to be worthwhile in a vast majority of the cases. From the responses, even those teachers who did it “only for the credit” reported surprise benefits and changes in attitude. The key seems to be to make the work experience meaningful, just as the teacher must make the classroom experience meaningful to their students.

Program Recommendations

Several recommendations emerged as a result of information learned in this study. The first recommend is that the study be expanded and be made available to more educators. If expansion requires additional expenditures in order to provide incentives, then it would be money well spent.
The data showed that significantly more secondary teachers participated than did postsecondary educators. Educators at the community college and university level should also be encouraged to participate. This program should not be limited to occupational educators in postsecondary institutions but should include academic instructors and those in colleges of education.

The second important recommendation has to do with program improvement. The single item that brought the largest response in the category of recommended changes to the externship program was in the area of business site selection and business preparedness. More time should be spent in critical evaluation of the appropriateness of placement sites for teachers. When possible, teachers wanted to be able to have input into the selection process and a choice of locations. Along the same lines, there could be an orientation session for employers, as well as teachers, so that they know what to expect from educators and how to make it the most meaningful experience possible.

The last recommendation is that elementary and secondary education leaders take a critical look at the practice of sabbatical leave time so prevalent in postsecondary education. Some states, such as Oregon, already provide a type of sabbatical leave on a regular basis for elementary teachers. This practice could be expanded to include more elementary and secondary educators and include a mandatory participation in a meaningful work experience related to their field.

Recommendations for Further Study

One area that this study did not research was the type of employment participated in by the educator, nor did it ask if the employment was related to their teaching area. A further study could include an in-depth assessment of the actual work experience, how it
relates to the teaching field, and compare the benefits of those working in related fields with those working in unrelated fields.

This could be further expanded to include a response from business. A study could be done which would query businesses to determine how they viewed the benefits of the program and how they believe it could be improved. Along with this, the common elements of successful experiences could be compared with the elements of those that proved to be less beneficial to both the educator and the business. All these results could be used to make a good program better.

Another area for research could look at the results of long term externships, those that involved a semester for more, as compared with the short-term experiences as reported in this study. It would be beneficial to know if there is a diminishing rate of return when the externship is extended. Along with this type of study, the researcher could look at sabbatical leave policies at both the secondary and postsecondary level to determine if that form of long term experience would prove beneficial for all educators.

Lastly, a possible research project could measure the job placement rate of students whose teachers participated in an externship experience, as compared to students with a teacher that did not become involved in the program. It would be interesting to discover if there is a different placement rate and then determine which elements of instruction, based upon the externship, played a major part in the success of the student's placement.

As education becomes more relevant to the real world of work, programs such as teacher externships will become more important so educators can actually relate their instruction to the workplace. With the percentage of unskilled jobs diminishing, and the
percentage of skilled employment opportunities increasing, this type of experience becomes vital to future workforce. We cannot compete if we are uninformed.
APPENDIX A

Survey Instrument

EXTERNSHIP SURVEY

This survey is designed to gather information on the benefits of externships to Nevada educators. The results will be used to evaluate the externship program and make changes as indicated from the results of the surveys. Your response is completely anonymous, if you would like a copy of the results, please send your name and address on a separate card. The results will be reported to the Nevada School-to-Careers partnerships and may influence their decision to continue funding of the externship project.

Part I - Demographic information

1. Grade level taught last year?________________________________________

2. Subject area? ______________________________________________________

3. Years of teaching experience?________________________________________

4. If not a teacher, what is your educational position?____________________

5. Other than this externship, have you ever worked in a field related to your teaching?____________________________________________________

6. If yes, when and what was your last employment in this area?
______________________________________________________________

Part II - Extent to Which Changes Were Made

Please circle your response to the questions in Part II:

Scale: 4 = Significant  3 = Moderate  2 = Minor  1 = None

1. Indicate the amount of curricular changes you made as a result of your externship experience.

   4   3   2   1
Scale: 4 = Significant 3 = Moderate 2 = Minor 1 = None

2. Indicate the amount of change you made in your instructional delivery methods as a result of your externship experience.
   4 3 2 1

3. Indicate the amount of new competencies you gained in your discipline as a result of your externship.
   4 3 2 1

4. Indicate the amount of change you noticed in your attitude toward career related instruction as a result of the externship experience.
   4 3 2 1

5. As a result of the externship experience, indicate the amount of contextual learning concepts you implemented in your classroom to show students the relevance of material learned in class.
   4 3 2 1

6. As a result of concepts learned in your externship, indicate how much change you made in your emphasis to students on each of the following topics:
   a. Tardiness
      4 3 2 1
   b. Absences
      4 3 2 1
   c. Initiative
      4 3 2 1
   d. Teamwork
      4 3 2 1
   e. Attitude
      4 3 2 1
   f. Communication Skills
      4 3 2 1
   g. Problem Solving
      4 3 2 1

8. Indicate the amount of benefit you feel you derived from the externship.
   4 3 2 1
Part III - Changes as a result of the program

1. What is the greatest benefit you derived from this program?

2. Describe what changes you made in curriculum as a result of the externship experience:

3. Describe the changes you made in your teaching methods/strategies as a result of the externship experience:

4. Did you change your emphasis on career information and work ethics as a result of the externship experience? If so, what were the major changes?

5. Would you like to participate in another externship.

   yes            no

6. If you were to participate in another externship, what changes would you make in the program?
APPENDIX B

Cover Letter - UNLV

July 27, 1998

Dear «Title» «LastName»:

You are one of over 200 Nevada educators who participated in a summer externship sponsored by UNLV or UNR. These externships received partial funding or other support from the Nevada School-to-Careers partnerships. School-to-Careers is a federally funded program administered by local consortiums comprised of both educators and business and industry representatives. Its goal is to provide ways for educators to help students make a successful transition from their educational program into a rewarding career.

As part of a doctoral dissertation project, we have developed a survey designed to measure the impact of the teacher externships on curriculum and instructional delivery methods. The results of this survey will be reported to the externship directors at both UNLV and UNR and may be used to make appropriate changes in the program. It will also be reported to the Nevada School-to-Careers consortiums and may effect future funding for the externship program. Since this Nevada survey is the first known research concerning the impact of teacher externships, we plan to report the data nationally through publications and conference presentations.

This survey is anonymous, responses will remain confidential and no attempt will be made to identify respondents. Any questions regarding the questionnaire should be directed to Andrea Anderson at the address listed on the letterhead. Questions regarding the rights of research subjects may directed to the Office of Sponsored Programs, 895-1357. All responses are voluntary and you may withdraw from participation at any time.

Enclosed is a copy of the externship survey. Please complete the survey and return it in the envelope provided. Your response is very important to us and the findings could have national significance. We would appreciate your response by August 12, 1998. If you would like to receive a copy of the survey results please send your name and address in a separate letter.

Thank you in advance for your assistance. We look forward to receiving your information and opinion.

Sincerely,

Andrea Anderson
Doctoral Candidate, UNLV

Dr. Cliff McClain, Assoc. Professor
University of Nevada, Las Vegas
July 28, 1998

Dear «Title» «LastName»:

You are one of over 200 Nevada educators who participated in a summer externship sponsored by UNLV or UNR. These externships received partial funding or other support from the Nevada School-to-Careers partnerships. School-to-Careers is a federally funded program administered by local consortiums comprised of both educators and business and industry representatives. Its goal is to provide ways for educators to help students make a successful transition from their educational program into a rewarding career.

As part of a doctoral dissertation project, we have developed a survey designed to measure the impact of the teacher externships on curriculum and instructional delivery methods. The results of this survey will be reported to the externship directors at both UNLV and UNR and may be used to make appropriate changes in the program. It will also be reported to the Nevada School-to-Careers consortiums and may effect future funding for the externship program. Since this Nevada survey is the first known research concerning the impact of teacher externships, we plan to report the data nationally through publications and conference presentations.

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Enclosed is a copy of the externship survey. Please complete the survey and return it in the envelope provided. Your response is very important to us and the findings could have national significance. We would appreciate your response by August 12, 1998. If you would like to receive a copy of the survey results please send your name and address in a separate letter.

Thank you in advance for your assistance. We look forward to receiving your information and opinion.

Sincerely,

Andrea Anderson
Doctoral Candidate, UNLV

Dr. Vernon Luft, Professor
University of Nevada, Reno
Dear Educator:

The Department of Educational Leadership is currently receiving the responses to the recent teacher externship survey. If you have already returned your survey, we would like to thank you for the prompt response.

If you have not yet returned your survey, we would appreciate your response as soon as possible. Your opinion is important to us so that the study can most accurately reflect the experiences of a significant number of participants.

Thank you for your assistance.

Sincerely,

Andrea Anderson
Doctoral Candidate
September 22, 1998

«Title» «FirstName» «LastName»
«Address1»
«City», «State» «PostalCode»

Dear «Title». «LastName»:

We will soon begin to compile the data received from the teacher externship surveys. The surveys received so far have been very informative and we are anxious to arrive at conclusions based upon the data collected. Both quantitative and qualitative methodology will be used to report the results. Additionally, ten educators will be personally interviewed to obtain in-depth information. If you would be interested in being one of those personally interviewed please indicate this when you return your survey form.

In order to obtain the most accurate data it is critical that we have a high survey return rate. If you have not yet completed your survey please do it now. The survey takes only a few moments to complete and your response is very important to us. The School-to-Work program, which funded your externship, has come under criticism from some conservative groups. Future funding is in jeopardy and conclusions drawn from surveys such as this can provide vital information to legislators to support continued funding for the program.

Again, please return your survey right away. We look forward to your response and are anxious to begin to compile the results. For your convenience, I have enclosed another copy of the survey instrument and a return envelope. Thank you for your assistance with this project.

Sincerely,

Andrea Anderson
Doctoral Candidate, UNLV
BIBLIOGRAPHY

List of References


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A Study to Determine the Impact of Summer Teacher Externships on Curriculum and Teaching Methods.

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