DOCUMENT RESUME

ED 342 926 CE 060 466

AUTHOR Heath-Camp, Betty; And Others
TITLE On Becoming a Teacher: An Examination of the Induction of Beginning Vocational Teachers in American Public Schools.
INSTITUTION National Center for Research in Vocational Education, Berkeley, CA.
SPONS AGENCY Office of Vocational and Adult Education (ED), Washington, DC.
PUB DATE Feb 92
CONTRACT V051A80004-90A
NOTE 208p.; For related documents, see ED 312 231, ED 312 501, and ED 335 517.
AVAILABLE FROM NCRVE Materials Distribution Service, Horrabin Hall 46, Western Illinois University, Macomb, IL 61455 (order no. MDS-161: $9.50).
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC09 Plus Postage.
DESCRIPTORS Alternative Teacher Certification; *Beginning Teacher Induction; *Beginning Teachers; Case Studies; College School Cooperation; Demonstration Programs; Ethnography; Followup Studies; Mail Surveys; Nominal Group Technique; Public Schools; Secondary Education; *Teacher Certification; Teaching Methods; Teaching Models; *Vocational Education Teachers
IDENTIFIERS Focus Groups Approach

ABSTRACT

A knowledge base was developed regarding the nature, dynamics, and scope of the induction process for beginning secondary vocational teachers. The research involved the following components: a 2-year ethnographic follow-up of 12 beginning teachers during fall 1988; the case study analysis of the first 2 years of teaching of five beginning teachers (selected from the 12 teachers in the ethnographic study); nominal group technique (NGT) focus sessions conducted with samples of beginning teachers [illegible]ight states in four U.S. regions over a 2-year period; a nati[illegible]ail survey of a stratified random sample of beginning teachers during fall 1989; and a national examination of exemplary teacher induction assistance programs. Important and substantive differences were found in the induction experiences and needs of teachers entering vocational education from traditional certification programs and those entering through alternative or vocational certification. These largely qualitative differences are attributable to the pedagogical training received in traditional programs and to the age and maturity gained by the alternatively certified teacher who has longer experience in the work world. The model induction assistance program developed by the study takes into account the unique needs of the teacher in terms of specific discipline, vocational development level, and background in teacher preparation. (Nineteen tables, 11 figures, 116 references, and 144 additional citations are provided. Two appendices contain 16 tables from NGT sessions and the national survey instrument.) (NLA)

ON BECOMING A TEACHER: AN EXAMINATION OF THE INDUCTION OF BEGINNING VOCATIONAL TEACHERS IN AMERICAN PUBLIC SCHOOLS

Betty Heath-Camp
William G. Camp

Elaine Adams-Casmus
B. Allen Talbert
Judith D. Barber

Virginia Polytechnic Institute and State University

National Center for Research in Vocational Education
University of California at Berkeley
1995 University Avenue, Suite 375
Berkeley, CA 94704

Supported by
The Office of Vocational and Adult Education,
U.S. Department of Education

February, 1992

MDS-161

This publication is available from the:

National Center for Research in Vocational Education
Materials Distribution Service
Western Illinois University
46 Horrabin Hall
Macomb, IL 61455

800-637-7652 (Toll Free)

FUNDING INFORMATION

Project Title:	National Center for Research in Vocational Education
Grant Number:	V051A80004-90A
Act under which Funds Administered:	Carl D. Perkins Vocational Education Act P.L. 98-524
Source of Grant:	Office of Vocational and Adult Education U.S. Department of Education Washington, DC 20202
Grantee:	The Regents of the University of California National Center for Research in Vocational Education 1995 University Avenue, Suite 375 Berkeley, CA 94704
Director:	Charles S. Benson
Percent of Total Grant Financed by Federal Money:	100%
Dollar Amount of Federal Funds for Grant:	$5,675,000
Disclaimer:	This publication was prepared pursuant to a grant with the Office of Vocational and Adult Education, U.S. Department of Education. Grantees undertaking such projects under government sponsorship are encouraged to express freely their judgement in professional and technical matters. Points of view or opinions do not, therefore, necessarily represent official U.S. Department of Education position or policy.
Discrimination:	Title VI of the Civil Rights Act of 1964 states: "No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance." Title IX of the Education Amendments of 1972 states: "No person in the United States shall, on the basis of sex, be excluded from participation in. be denied the benefits of, or be subjected to discrimination under any education program or activity receiving federal financial assistance." Therefore, the National Center for Research in Vocational Education project, like every program or activity receiving financial assistance from the U.S. Department of Education, must be operated in compliance with these laws.

TABLE OF CONTENTS

AN OVERVIEW OF THE RESEARCH

Success of the vocational education enterprise in the United States is dependent on many factors: public support (Lamar, Gyuro, Burkett, & Gray, 1978); legislative and political support (Ginzberg, 1975); and adequate facilities and resources (Evans & Herr, 1978), among other factors. But—even with popular, political, and legislative support and with the best facilities and all of the right students—the success of vocational education in America is finally dependent on a professional, competent, and motivated teaching force.

Clearly, the key player in the educational process is the teacher (Reyes, Alter, & Smith, 1986). Yet, the processes that are used in the professional development of public school vocational teachers are more the result of political decisions, administrative convenience, and historical accident than of educational research or empirically based educational theory (Cruickshank & Armaline, 1986).

Learning to Teach

According to Shulman (1987a), teaching may well be the most difficult of all professions to master. A successful teacher requires as much technical knowledge in a discipline as do practitioners in that discipline. In addition, the teacher must be able to organize and present that knowledge as a coherent, understandable, and meaningful learning experience to often less than enthusiastic clients.

Theoretical Framework

Research reported by Buehler (1933), cited by Super, Crites, Hummel, Moser, Overstreet, and Warnath (1957) and later by Osipow (1973), proposed a general theory of human development. The Buehler model proposed that humans pass through four basic stages: growth, exploratory, maintenance, and decline.

Ginzberg, Ginsberg Axelrad, and Herma (1951) proposed a general theory of occupational choice. Their model concentrated on the growth and early parts of the exploratory stages identified earlier by Buehler. In terms of the process of selection of a vocation, they proposed that individuals pass through a series of stages they labeled

fantasy, tentative, and realistic. The fantasy stage occurs in early childhood—an involved childlike visualization of self as an adult. The tentative stage involves the gradual recognition by the child that each person has certain interests and abilities that might somehow be related to the concept of occupation. The realistic stage occurs in later adolescence and involves a conscious balancing of self against occupation as a means of arriving at an occupational choice.

Osipow (1973) pointed out that the Ginzberg et al. theory of occupational choice was extremely influential in the field of vocational development. Yet, as he reported, their theory received widespread criticism, in particular from Donald Super, who was becoming a central figure in the field.

Super et al. (1957) proposed a more comprehensive theory of vocational development that expanded on the Buehler (1933) and Ginzberg, et al (1951) work. They posited a life stage model with roughly corresponding age spans as indicated in Figure 1. Super's work remains one of the definitive theories of occupational development and is described regularly in the current literature on personal adjustment and human development (Barocas, Reichman, & Schewebel '983; Belkin, & Nass, 1984).

The exploratory-trial stage occurs at the very beginning of mature adulthood and involves the initial transition from schooling to work for persons following the traditional college route immediately after high school. This stage typically involves a first job and is characterized by insecurity, false starts, and instability.

The establishment-trial stage follows the exploratory-trial stage and calls for adjustment problems that result in either eventual stabilization or a continuing pattern of job changes that lasts throughout the individual's working life. This stage is characterized by a growing stability and maturity in judgement and attitude toward work.

For the typical teacher education graduate entering teaching directly from college, the induction process would begin at the exploratory-trial developmental stage. One would expect substantial instability, unrealistic expectations, and false starts at that stage of development. At some point, one would expect these teachers to progress into the establishment-trial stage and thus to gain both in vocational maturity and stability.

Teachers entering vocational education from an extensive occupational experience background typically enter the profession at the establishment-trial stage of vocational

Figure 1

Stages of Vocational Development
Proposed by Super, Crites, Hummel, Moser, Overstreet, and Warnath, 1957

Stage	Age Range
Growth	Birth to 14
Fantasy	4 - 10
Interest	11 - 12
Capacity	13 - 14
Exploration	15 - 24
Tentative	15 - 17
Transition	18 - 21
Trial	22 - 24
Establishment	25 - 44
Trial	25 - 30
Stabilization	31 - 44
Maintenance	45 - 64
Decline	65 - Death

development. While adjustment problems would still be expected, one would expect somewhat less instability, more realistic expectations, and fewer false starts from such a group. Interestingly, because of the wide age range of beginning teachers, particularly those entering the classroom from alternative routes including occupational experience, these experiences may fall well outside the age range (twenty-five to thirty) posited by Super et al. (1957).

Teacher Career Development Stages

Steffy (1989) presented a comprehensive look at the career development of classroom teachers. She proposed that teachers generally experience a five-level career progression through the following stages: anticipatory, expert/master, renewal, withdrawal, and exit. According to her work, the induction phase, described previously, would be roughly equivalent to the anticipatory stage. While Steffy's work provides a very detailed and empirically sound description of the various kinds of teachers' experiences, she failed to consider the place her thinking holds in contributing to the theory base for vocational development.

Professional Development

Mastering teaching is a long and challenging undertaking (Conant, 1963; Feiman-Nemser, 1983; Whitfield, 1981). Teacher education must be viewed as a long-term, developmental process (Hoffman, Edwards, O'Neal, Barnes, & Paulissen, 1986; Wildman & Niles, 1987a). The process of becoming a teacher takes place over an extended period of time. Teacher professional development can be visualized as a continuum, (see Figure 2) including preservice education, induction, and continuing development (Camp, 1988b).

The Super et al. (1957) theory provides a model for the Teacher Professional Continuum and, in particular, for an examination of the induction process for the teachers being studied in this project. The preservice teacher is at the latter part of what the Super et al. model describes as the exploration-trial stage. The exploration-trial stage also involves a first job. This stage and the early years of the establishment-trial stage correspond directly to the induction phase of the Teacher Professional Development Continuum. Super's

stabilization and maintenance stages correspond to the continuing development phase of the Teacher Professional Development Continuum.

Preservice

The first phase, as described for vocational education by Pratzner (1988a), is preservice. It is during the preservice stage that field experiences (Goodman, 1985), clinical experiences (Berliner, 1985), and classroom activities (Cruickshank, 1985) are provided to prepare the prospective teacher for the next stage.

For the professionally educated teacher, preservice preparation for teaching begins with the first course in teacher education or educational psychology and includes extensive preclinical, clinical, and simulated classroom and laboratory experience (Lortie, 1975; Berliner, 1985; Roper, Hitz, & Brim, 1985; Waters, 1985; Huffman & Leak, 1986; Johnson & Kay, 1987). But for many vocational education teachers, particularly for those entering teaching from nonteacher education routes, the preservice stage frequently is limited to nothing more than a job interview and a tour of the laboratory, normally just before school starts (Camp, 1988b; Scott, 1988).

Induction

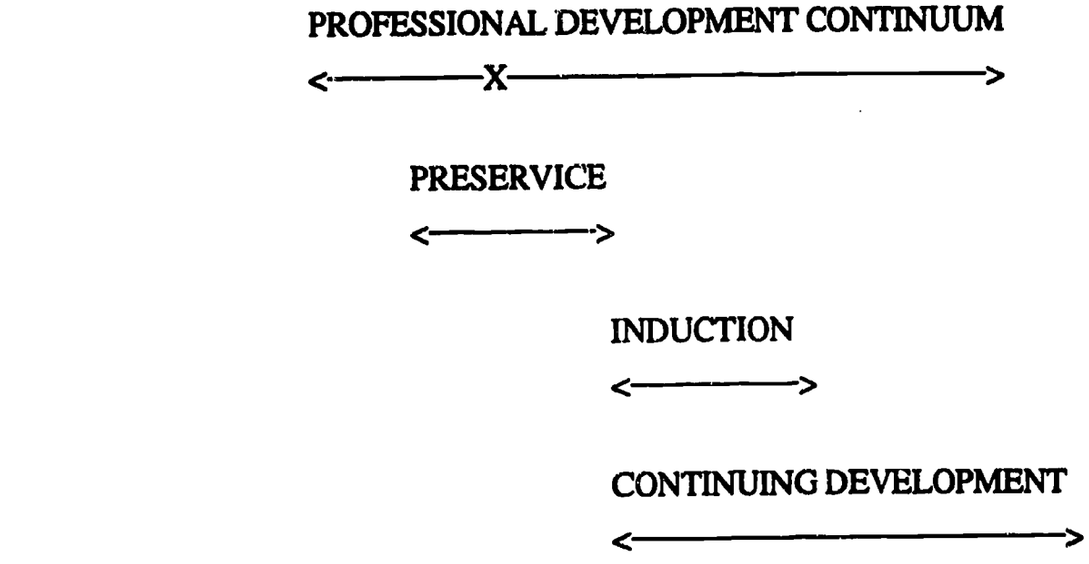
The broad process by which a novice teacher becomes integrated into the profession of teaching has come to be known as "induction" (Waters, 1985). During the induction period, the novice teacher makes the transition from being a student or worker to becoming an established teacher. The induction process is not a simple one, and it is often painful (Ryan, 1982). It is not defined by a definite set of time lines (Camp, 1988b). The teacher induction process begins just before the novice enters the classroom or laboratory for the first time as a paid professional. It does not end until the teacher is firmly established, competent, and confident as a professional faculty member (Fuller, 1969; Glickman, 1981; Huffman & Leak, 1986).

Continuing Development

The third phase in professional development is continuing development or continuing education as described by Callahan and Clark (1988), Fenstermacher and Berliner (1983), and Whitfield (1981). Professional involvement, graduate education,

Figure 2

Professional Development in Teaching



X: Date of Employment

travel, planned growth experiences, professional reading, and contributions to the education community are examples of continuing development.

Since well before Dewey (1938) advocated a reflective approach to self-improvement in teaching, there has been a widespread acceptance in the educational community that teachers should learn to look at themselves and learn from their own experiences. As early as the late eighteenth century, Pestalozzi and Wehrli (Bennett, 1926) described a process of teaching and learning to teach that was based on much the same process that Schön (1983) described. Wildman and Niles (1987b) spoke eloquently of the desirability of teachers learning to be reflective practitioners rather than merely competent teachers.

Research on Induction

Fuller's (1969) work provides a framework for looking at the induction process for beginning teachers. She and her associates at the University of Texas worked with preservice and beginning teachers for a number of years in the 1960s in an effort to examine the quality and effectiveness of undergraduate teacher education. She found that preservice teachers often had difficulty in relating to their teacher education coursework. To explain this apparent lack of "readiness," Fuller hypothesized that beginning teachers pass through a developmental progression of concerns. Ryan (1986) expanded on Fuller's early work and labeled the phases: fantasy, survival, mastery, and impact.

The fantasy phase is characterized by unrealistically optimistic expectations of students and the nature of the profession. Ryan proposed that this is typical of preservice teachers and those in the early days of actual teaching. In the survival phase, preservice or beginning teachers with little teaching experience are not yet critically concerned about teaching or students. They want their students to do well, but, primarily because of their own needs, they want to experience success in teaching. At that phase, they are not very likely to experiment or take risks in their teaching. After some experience they begin to become more concerned with their mastery of the tasks involved in teaching. They are now ready to experiment with teaching strategies and better ways of performing the functional aspects of teaching. Finally teachers who have gained enough experience and success to become confident in themselves and their ability to handle the tasks of teaching become concerned with their impact upon their students. It is at the impact phase that teachers

exhibit unselfish and fearless concern about students as individuals and about their students' educational needs.

Importance of the Problem

For decades the beginning teacher's need for help in making the transition into the profession has been recognized (Conant, 1963). There is a growing consensus in the profession that induction assistance programs are needed to facilitate that process (Ashburn, 1986-87; Galvez-Hjornevik, 1986; Huling-Austin, 1986; Johnson & Kay, 1987; Thies-Sprinthall & Sprinthall, 1987; Underhill & Brown, 1988).

Over the years, much research has been done to identify the problems and inservice needs of teachers in general. One important work that examined the complexity and demands of the teaching profession was Conant's (1963). There is a growing literature base about the specific problems and inservice needs of beginning teachers (Veenmam, 1984; Huling-Austin, Odell, Ishler, Kay, & Edelfelt, 1989). The broader perspective of induction needs (including but not limited to inservice needs of novice) teachers is a more recent research priority in educational circles, and the profession is beginning to see findings reported in the literature that are valuable in planning induction programs (Yarger, 1982; Roper, Hitz, & Brim, 1985; Thies-Sprinthall, 1986). In general, research has been limited to the induction process for academic teachers in traditional classrooms. Indeed, there has been negligible attention paid in the educational research literature to the induction process for beginning vocational teachers (Fuller, 1987; Camp, 1988b).

As Gage (1977) posited, discipline specific research about teaching is more effective than generic research in improving teaching. Yet precious little has been done in this area in vocational education. Indeed, a search of the education literature for the past few years indicates that practically everything written in this country on the subject of teacher induction is based on research in elementary education and general education at the secondary level. The literature is silent on whether traditionally educated vocational teachers have different induction problems and needs than teachers in other areas. Prior to this study, there has been very limited research reported on the induction process for secondary vocational teachers certified on the basis of occupational experience—the traditional trade and industrial (T&I) model. If induction programs for beginning vocational teachers are to be planned and structured with consideration for the unique

character and needs of beginning vocational teachers, then they must be based on appropriate research.

The Overall Study

The larger study, of which this research report presents selected results, has dual aspects. The overall project consists of two broad phases, each phase addressing a separate problem.

Phase I

Phase I, begun in 1988, will continue throughout the life of the project. It involves the development of a disciplined research base on the nature, dynamics, and scope of the induction process for beginning vocational teachers. It has included a wide array of both qualitative and quantitative research techniques ranging from participant observation to a national mail survey of first-year vocational teachers. The section titled "Methodology" will provide a detailed description of the research methodologies used.

Phase II

Phase II of the overall project, begun in 1990, initially involved the identification and examination of existing alternative models of induction programs for beginning teachers. The conclusion of Phase II will be the development, implementation, and evaluation of a model induction assistance program for beginning vocational teachers.

Purpose

The ultimate purpose of this project is to develop a model to assist in the structured induction of beginning vocational teachers at the secondary school level. As a preliminary to that, the intermediate purpose of the study is to develop a disciplined knowledge base regarding the nature, dynamics, and scope of the induction process for beginning vocational teachers. To address the intermediate objective is the purpose of this document.

Scope

The research being reported in this paper involves the following components:

- An intensive two year ethnographic follow-up of twelve beginning vocational teachers who entered teaching during Fall 1988.

- The case study analysis of the first two years of teaching of five beginning vocational teachers.
- A series of nominal group technique (NGT) focus sessions conducted with samples of beginning vocational teachers from eight states in four geographic regions of the United States—from the Southeast to the Northwest—taking place over a two-year time period.
- A national mail survey of a stratified random sample of beginning vocational teachers who entered teaching during Fall 1989.
- A national examination of exemplary induction assistance programs involving vocational teachers.

Research Questions

More specifically, the research reported here was designed to seek answers to the following questions:

1. What is the nature, dynamics, and scope of the induction process for beginning vocational teachers?
2. Are there differences in the induction process among beginning vocational teachers entering teaching from traditional teacher education certification programs and those entering through alternative certification and vocational certification?
3. What are the induction assistance needs of beginning vocational teachers?
4. What exemplary programs are in place?
   a. What are they like?
   b. How are they working?
   c. What implications do they have for the profession?
5. What should be the components of an induction assistance model designed for the professional development of beginning vocational teachers?

A BRIEF LITERATURE REVIEW*

Beginning teachers accept all of the responsibilities of teaching just like veteran teachers—responsibilities ranging from daily lesson planning to managerial and accounting duties. In addition, the beginning teacher experiences personal changes such as moving to a new community and starting a new lifestyle (Levy, 1987). Over the years several systems have been developed to assist the beginning teacher in meeting the above responsibilities, a number of which are described by Huling-Austin et al. (1989).

In this section, we will examine part of the current literature on the professional development of beginning teachers. Induction assistance programs can take many forms with varied results. This section will examine four such systems for helping beginning teachers: mentoring, fifth-year programs, alternative certification programs, and professional development models.

Definition of Induction

The induction process for beginning teachers includes all of the steps involved in socializing the teacher into the profession. The process begins when the teacher signs the work contract and ends sometime in the future when the teacher becomes established in the profession. The length of induction time is different for each beginning teacher (Camp & Heath, 1988). This period of time represents a transition from student or worker to teacher. It has long been recognized that the induction process can be both difficult and lengthy and that new teachers need support and assistance (Wildman, Niles, Magliaro, McLaughlin, & Drill, 1987). However, as Pratzner (1988a) reported "assistance programs for teachers are still things of the future in secondary level vocational education" (p. 28).

---

* A Preliminary Note: This document is the second in a series of monographs produced by the National Center for Research in Vocational Education, University of California at Berkeley. The first monograph, *On Becoming a Teacher: Vocational Education and the Induction Process*, MDS 018, (Camp & Heath, 1988), was specifically designed to provide a review and synthesis of the literature on induction with particular emphasis on its implications for vocational education at the secondary-school level. For the reader who desires a much more comprehensive review of literature on the subject, please see that document. This chapter will provide a limited synthesis of only the materials most germane to the research being reported here.

"The transition from student to first-year teacher is traumatic for many and is frequently labeled 'reality shock' in the educational literature" (Marso & Pigge, 1987, p. 53). Beginning teachers are often placed in classrooms with little preparation and no specific support structure. It is no wonder then that "... beginning teachers frequently report stress, anxiety, and feelings of inadequacy" (Joyce & Clift, 1984, p. 6). Even beginning teachers who participated in student teaching find that they need a support system. Meister (1987) stated in a study of Maryland school systems that there is an assumption that "new teachers arrive in school systems adequately prepared" (p. 11).

Odell (1986) stated that first-year and "new to the system" teachers need assistance in obtaining information about the school district and obtaining resources and materials for the curriculum that is taught. As an example, beginning teachers may not understand or know about policies concerning the purchase of supplies and equipment. This need for assistance should be met in a systematic, efficient manner. Pratzner (1988b) concluded that there must be an "emphasis on the teacher career development continuum . . . new induction year programs for beginning vocational teachers" (p. 50).

Mentoring

A mentor is generally considered to be an older, experienced teacher who assists the novice teacher in becoming a professional. Anderson and Shannon (1988) identified the five functions of a mentor as teaching, sponsoring, encouraging, counseling, and befriending. They also identified demonstrating lessons, observing and giving feedback, and holding support meetings as three possible mentoring activities. The mentor/protégé relationship may be structured or informal, however, some guidelines help the relationship to work better. Johnson (1988) recommended that the mentor be in close proximity to the beginning teacher to facilitate communication, observation, and dialogue. In addition, beginning teachers have suggested that the mentor be in the same subject matter area and that there be daily contact between the mentor and the protege (Huling-Austin, 1988).

The mentor/protege relationship works best when the mentor receives both training and compensation (Huling-Austin, 1988). The relationship thus begins as a defined, professional one. As trust and confidence develop, this relationship will change over time; therefore, the system must provide flexibility to allow these changes to occur (Johnson, 1988).

Mentoring can take many forms. A recent project at Arizona State University, in cooperation with the state department of education, was designed to pair seventy-five beginning teachers with mentors. In this program, the mentors observed, coached, and conferred regularly with the beginning teachers (The Holmes Group, 1988a). Virginia Tech has started an Early Career Support Program to train mentors for first-year teachers, to provide follow-up support to the first-year teachers, and to offer a toll-free telephone line to help both the mentors and the first-year teachers. The Early Career Support Program grew out of the Colleague Teacher Project that was developed in conjunction with Virginia's Beginning Teacher Assistance Program. The Colleague Teacher Project has collected data on twenty beginner/mentor pairs in its two years of existence. The study has found that colleague teachers give the first-year teachers both cognitive and effective support (The Holmes Group, 1988d; Wildman et al., 1987). Zimpher (1988) found that in 1987, sixteen states mandated entry-year programs that contained mentoring components, and sixteen additional states had legislation in progress. She also described the mentoring program developed by Ohio State and the Franklin County (Ohio) school districts. At the time of her report, the initial mentors in this program were training other veteran teachers to perform mentoring duties.

Of the states in the Appalachian Regional Commission—New York, North Carolina, and Tennessee—all assign mentors to new teachers. The beginning teachers are then evaluated by both administrators and peers (State Research Associates, 1988). Johnson (1988) highlighted the Vermont Mentor Program as it concerns vocational education. Prospective vocational teachers are trained in either two-year postsecondary institutions or in secondary schools. Johnson noted that the prospective teacher may not receive enough pedagogical support from the postsecondary mentor or enough work-experience support from the secondary school mentor. Zimpher (1988) found that of the U.S. Department of Education's Office of Educational Research and Improvement's twenty-nine teacher education improvement projects, eleven of them focus on the induction year or mentoring.

However, not all aspects of mentoring are positive. By pairing a beginning teacher with an experienced teacher we risk perpetuating the status quo. By logical extension, to the extent that the status quo needs changing then the mentoring concept will fail (Goodlad, 1988). Johnson (1988) detailed additional problems. The protege could be paired with a mentor who is exploitive, jealous, egocentric, stifling, or overprotective. Johnson also

expressed concern that in small school districts with single teacher departments the beginning vocational teacher will not be served by an appropriate mentor. Care must be taken to reduce as many of the potential problems as possible.

Potential problems are a detriment to the mentor/protege relationship. Huling-Austin (1988) conducted a synthesis of seventeen studies on teacher induction. One of her conclusions was the importance of the mentor to the beginning teacher. To make the relationship work, an appropriate mentor must be selected.

Fifth-Year Programs

Programs conducted by colleges or universities that require coursework beyond the traditional four-year undergraduate degree for initial teacher certification will be defined as fifth-year programs in this paper. These extended programs can be in the form of extended undergraduate degrees, masters degree programs, or educational coursework for liberal arts majors. Fifth-year programs are offered as both preservice and induction year programs.

Willett (1988) in the Virginia Teacher Education Study found that seventy-three percent of the teachers in the 1986-87 study were against extending the current four-year undergraduate program. Only four percent of the teachers were in favor of a working fifth-year with a salary. Despite findings like this, many programs are being developed to extend teacher preparation beyond four years. Catholic University of America has developed a proposal to conduct a five-year program. The fifth-year is a paid induction year in which the student is supervised by an experienced mentor teacher. Catholic University of America is part of a consortium of Washington, DC universities that cooperate with District of Columbia school districts in a mentoring program for all beginning teachers (The Holmes Group, 1988b). Wise (1986) advocated a six-year program. He proposed that the prospective teacher get a four-year liberal arts degree, then a one-year graduate degree in education followed by a paid one-year internship.

In *The Chronicle of Higher Education* ("U.S. Roll call," 1988), an article on actions by the states from 1986-88 to reform the education of teachers noted that nineteen colleges and universities in Alabama had established graduate programs for prospective teachers who hold bachelors degrees in fields other than education. The article also noted that the state of Tennessee allows persons who have not had student teaching to work for

one year as a paid intern. This is counted as a fifth-year of study for the teacher. The University of Nevada-Reno has in place an assistance program for elementary and special education graduates that allows the teacher to earn a master's degree (The Holmes Group, 1989). Oklahoma State University, the University of Oklahoma, and Northeastern State University of Oklahoma have developed a recommendation to require five years of academic teacher preparation with supervision during the first year of teaching (The Holmes Group, 1988c).

McNelis and Etheridge (1987) proposed three models for induction internships. Two of these models are for fifth-year programs. The first is a fifteen-month graduate internship to include three experiences of teaching junior or senior high school classes over a year period. The second model is a total immersion experience for students completing a twelve month graduate level certification program. McNelis and Etheridge found differences in internship activities and in teacher attitudes between the three models.

A review of the literature also found some negative aspects of fifth-year programs. Bass de Martinez (1988) posited that five-year programs will not attract enough minority students to replace current minority teachers let alone meet future demand. As a consequence, the increasing percentage of minorities in the total population will be not be represented by a similar percentage increase in the teaching force.

Fifth-year programs appeal to those who believe that prospective teachers need additional education beyond the traditional four-year bachelors degree. Before these programs are implemented, however, more research should be conducted on the effectiveness of fifth-year programs.

Alternative Certification

According to Olson and Rodman (1988) as much as fifty percent of new teachers leave the profession within five years. A result of this high turnover is that many school systems begin the school year with a shortage of certified teachers. One method of meeting this demand for new teachers is through alternative certification. Alternative certification bypasses the normal path—prospective teachers moving through a teacher preparation program—in favor of substitute routes. One example of a substitute route is the T&I model. Prospective teachers are given credit for occupational experience in lieu of a

baccalaureate degree (Finch and O'Reilly, 1988). Uhler (1987) gave the New Jersey model as a second example of an alternative certification model. Teachers in this model must have a bachelor's degree, pass the basic skills test, and complete a one-year internship.

Based on New Jersey's experience, Uhler saw advantages and disadvantages to alternative certification. According to Uhler alternative certification is one method of finding "new ways of having candidates . . . enter the teaching profession" (p. 4). Also, people who were not able to engage in formal college training can still enter the teaching profession. Another advantage is that these programs will eliminate emergency certificates which have been viewed as allowing unqualified teachers in the classroom. However, he found that alternative routes still allow ill-prepared candidates at the entry level. He argued that alternative certification is a simplistic solution to the teacher shortage problem—a solution that will undermine pedagogical standards.

Alternative certification requirements vary from state to state. Leatherman (1988) reported that some states have developed alternative certification programs that include requiring the nonteacher education degree teacher to complete the same professional education courses and the same skills tests as teacher education graduates. Graham (1989) found that in 1986 twenty-three states had programs for alternative certification. In an article titled "A Survey of Two Years of Action by 50 States and DC to Reform the Education of Teachers" in the April 20, 1988 issue of *The Chronicle of Higher Education*, a survey of educational reforms of the fifty states and the District of Columbia found that in Arizona individuals who held a bachelor's degree other than in teacher education must pass a basic skills test to teach. California required a prospective teacher to pass both skills and subject area tests and to work under the supervision of another teacher for two years. At that time Connecticut was scheduled to start a three-month summer program to provide professional training for alternative certification teachers. Arkansas requires prospective teachers to hold an academic degree in the subject area in which they plan to teach. Prospective teachers must major in the liberal arts or an interdisciplinary field in Massachusetts. The teacher then has five years to earn a Masters degree and receive full certification. In Mississippi, alternative certification teachers had three years to complete twelve semester hours of teacher education courses.

Eight Appalachian region states have guidelines for alternative certification. In North Carolina, prospective teachers must have a bachelor's degree, pass a certification

test, complete an internship, and demonstrate competency in their field. Upon completion of the above requirements the teacher receives full certification. West Virginia and Georgia allow alternative certification only for critical areas (State Research Associates, 1988).

Another model is the South Carolina program for alternative certification. Beginning teachers in this model must hold a baccalaureate degree usually in the content area that they will teach. Before the beginning of the school year, the teacher receives limited pedagogical training. Then throughout the first year the teacher is assigned a mentor, receives visits and observations from field coordinators from the state department of education or college professors, and participates in monthly seminars. During the second and third years of the program the teacher receives additional summer training and, also, must take three specified graduate courses. Upon the successful completion of the courses and three years of teaching experience, the teacher receives full certification (Graham, 1989).

National teacher certification may soon be a reality. Watkins (1989a) reports that the National Board of Professional Teaching Standards has released its initial guidelines and will issue voluntary National Teaching Certificates beginning in 1992. The guidelines will require a bachelor's degree but make no mention of a requirement for coursework in education. The National Board argues that the certification will improve the professional image of teaching and will increase both the quantity and quality of future teachers.

Professional Development Models

As was noted earlier, McNelis and Etheridge (1987) listed three models of internship: traditional student teaching, graduate internship, and total immersion year-long internship. Several other professional development models were identified in the literature review. Howey (1988) advocated the use of a three-rung career ladder. The first rung is for those teachers still completing their initial education. These teachers would be considered to be in the induction phase. Teachers at the middle rung would be fully licensed professionals. Middle rung teachers would assume full teaching responsibilities which would include serving as mentors for the teachers on the first rung. Teachers on the third rung would assume leadership roles including the induction of beginning teachers. They would also train middle rung teachers to be mentors.

Professional development centers are also identified as being important in the induction of beginning teachers. Monaghan (1989) described a study by the Center for Educational Renewal on how teachers are trained in the United States. One proposal of that study would involve setting up *key schools* or professional development schools to serve as testing laboratories. Rodman (1988) detailed a program conducted by the school districts of Hammond, Gary, and East Chicago, Indiana with the Indiana University-Northwest to train future urban teachers. As part of their undergraduate training, prospective teachers would be sent to a *professional development center* to receive experience in teaching urban youth. Beginning teachers would receive two years of on-the-job training before becoming fully licensed. Rodman (1987) also advocated that school districts create induction schools "modeled after teaching hospitals, where seasoned veterans can help induct novices into the profession" (p. 4).

Summary and Conclusions

Beginning teachers enter the profession after observing examples of teaching, both good and bad for many years. They have formed opinions about what teaching is and how it should be performed (Shulman, 1987a). Unfortunately, the beginning teacher is faced with a much more complicated task than he or she ever imagined. According to Waters (1988), even though preservice education provides a good foundation, the beginning teacher needs additional assistance to survive the induction process.

Research on the effectiveness of teacher induction programs is limited, especially in the area of vocational education. Numerous induction period programs and models can be found; however, many are just proposals and most are designed for elementary or secondary mathematics and English teachers.

A severe teacher shortage is predicted for the next decade (Waters, 1988). This shortage will be met by an influx of new teachers, many with limited pedagogical knowledge. Therefore, induction programs must be in place to insure that these teachers not only survive their first few years of teaching, but that they become effective teachers.

Each of the four systems of teacher induction identified in this paper has its advantages and disadvantages. Without continued research on teacher induction and on

alternative induction models, beginning teachers will continue to find that "learning to teach is . . . difficult" (Shulman, 1987b, p. 5).

METHODOLOGY

As was discussed in the first section, the overall project consists of two broad phases. It has involved a wide range of both qualitative and quantitative data collection and analysis techniques. Research techniques used in the study have included the following:

- nominal groups
- focus groups
- in-depth interviews of beginning teachers, peer teachers, mentor teachers, principals, students, vocational directors, inservice coordinators, state department personnel, and induction program directors
- participant observation
- field visits
- personality surveys
- leadership style scales
- time-series examination of stress, job satisfaction, and teaching/learning style
- telephone interviews and field visits to exemplary program sites
- daily and weekly tape-recorded logs
- national survey

In this section, we will detail only the methodology involved in the research to be reported later in this document. This is done for the sake of simplicity and to provide a contextual framework for the sections of results that follow.

Selection of Participants

Two types of research will be reported in succeeding sections: qualitative and quantitative. The qualitative research consisted of daily logs of the first year of teaching for twelve beginning vocational teachers; case studies of the first two years of teaching for five beginning vocational teachers; nominal group technique focus sessions; and an examination of a number of selected exemplary programs of teacher induction. The quantitative research involved a national survey of a stratified random sample of all beginning vocational teachers in the United States in school year 1989-1990.

Transcript Analysis

A purposefully selected sample of beginning vocational teachers from Virginia, West Virginia, and North Carolina participated in this year-long study. The criteria for selection was based on membership in one of the traditional vocational service areas and on the source of teacher certification, either teacher education certification (TEC) or nonteacher education certification (NTEC) (see Figure 3).

Potential participants were initially identified by contacts with state department of education vocational education personnel, university teacher educators, and local vocational administrators. Once the initial list of potential participants was complete, the teachers were contacted by telephone to determine their interest and to attempt to clarify their status in regards to their length of time in teaching, their service area, and their source of certification. This produced a much reduced list of potential participants. Because the participants would miss a day of class, their principals, vocational directors, and superintendents were contacted by letter and then by telephone to secure permission for their participation. Finally, letters of confirmation and directions were sent to the participants. The process produced a sample of fourteen beginning teachers. The day before the first meeting one teacher called to indicate that she would not be able to participate. The day of the first meeting one teacher failed to arrive and, after being contacted later, indicated a "change of mind."

Of the twelve first-year teachers who participated in the intensive study, five were graduates of teacher education programs, three held degrees in their chosen technical fields, one held a Master of Fine Arts degree, one held an Associate degree in nursing, and two held high school diplomas. Thus, members of the group are certified as follows: five

through teacher education (TEC), four through alternative programs (NTEC), and three through vocational certification (NTEC).

There were seven males and five females. Occupational experience varied from several years in part-time jobs for one teacher education graduate to over twenty-five years in the relevant trade for one high school graduate. Two of the teachers were African American and ten were white. Six were teaching in comprehensive high schools, three were in vocational centers, two were in middle schools, and one taught one-half day in each of two junior high schools. The following services were represented: health, agriculture, machinery (T&I), printing (T&I), marketing, technology, career exploration, and home economics.

Case Studies

Five beginning vocational teachers were selected for case study analysis from the larger group of twelve teachers whose first two years of teaching had been intensively followed as described above in the transcript analysis. The case study teachers were selected to represent two traditional service areas: agricultural education and marketing education. In addition, for each service area, both teacher education and nonteacher education certified teachers were represented. These service areas were selected because the two principal investigators were from marketing and agricultural education. The remaining teachers case studies will eventually be analyzed, but that process has not yet been undertaken.

Nominal Group Technique (NGT) Sessions

Over a fifteen month period, five different groups were purposefully selected and assembled for intensive study. Each group consisted of ten beginning vocational teachers who had spent varying amounts of time in teaching. They were also from different geographic areas, representing eight different states. The geographic areas and states were selected to provide national applicability to the research, and the varying length of teaching times were selected to provide data from teachers ranging from the very beginning of their careers through the start of their third year. The service areas were used to insure coverage of the entire spectrum of vocational education. With two samples, NGT sessions were held at the beginning of year one, end of year one, and end of year two. For two more samples, NGT sessions were held at the beginning and again at the end of year one. Thus, a total of sixteen NGT sessions were conducted over the two-year time period.

In each case the criteria for selection was based on membership in one of the traditional vocational service areas and on the basis of teacher certification. The two criteria can be represented as a 2x7 matrix (see Figure 3). The matrix was used as the basis for the search, but identifying and maintaining a sample of teachers who precisely matched the matrix for the data collection was not possible.

It soon became obvious that it would be impractical to find a beginning vocational teacher for each cell in the matrix within a given geographic region. For instance, NTEC technology education teachers and TEC trades and industry teachers are difficult enough to find in most states, but when we added the criterion that they must be entering a specific time-point in their careers, it became impossible. Also, invariably, at least one teacher would either cancel at the last minute, or simply fail to show up for a session, so the participants in a sample seldom reached fourteen and never actually completely fulfilled the search matrix.

Finally, until a detailed interview was conducted, it proved to be surprisingly difficult to determine accurately the actual source of the teacher's certification. As an example, one teacher was initially classified as an NTEC health occupations teacher because she was vocationally certified based on work experience. Only at the interview did it become clear that she was a graduate of a teacher education program in another service area. Even though technically, her certification to teach health occupations was not based on her teacher education degree, we considered her to be a graduate of a complete teacher education program and reclassified her into the TEC focus group. From this example, it is easy to understand that the actual membership of a given focus group varied somewhat from the ideal that would have been provided by the search matrix.

In each case, for the purposes of data collection, the members of a given group were segregated into focus groups by source of certification: traditional teacher education certification (TEC) or alternative nonteacher education certification (NTEC):

- The first group was beginning first year teachers entering their first month in teaching. We labeled these our A and B samples, with NTEC being labeled the A sample and TEC being labeled the B sample. The A and B samples met at the beginning of their first year, again at the end of their first year, and again at the end of their second year of teaching. They participated in field visits and recorded daily

Figure 3

Matrix of Search Criteria for Participants in Each Group

	Teacher Education Certification TEC	Nonteacher Education Certification NTEC
Agricultural Education		
Business Education		
Marketing Education		
Trades & Industries		
Technology Education		
Health Occupations		
Home Economics Education		

25

logs throughout the 1988-89 school year. During the 1989-90 school year, they continued to participate by recording weekly logs.

- The second group was just beginning their third year of teaching. These were labeled C and D, with C being NTEC and D being TEC teachers.

- The third group was just completing their first year of teaching. These were labeled E and F, with E being NTEC and F being TEC teachers.

- The fourth group consisted of teachers entering their first year in the profession. These were our G and H samples, with NTEC being G and TEC being H. They continued to participate in a weekly mail survey data gathering effort. We met with these teachers again at the end of their first year.

- The fifth group was made up of beginning first-year teachers and was labeled I and J, with NTEC being I and TEC being J.

Exemplary Programs

A letter was sent to all state directors of vocational education or their equivalents. The letter explained the purpose of the study and requested nominations of state-wide, school system, or local school programs of teacher induction assistance involving vocational teachers. It was emphasized that the programs need not be just for beginning vocational teachers, but that they must *include* beginning vocational teachers.

In all, over thirty nominations were submitted along with names, addresses, and telephone numbers of appropriate contact persons. The contact persons were then sent letters with requests for any literature available to describe their programs or for brief descriptions if no printed materials were available. We received responses from thirteen of the contact persons, varying from one-page letters to volumes of printed matter.

National Survey

To secure a nationally representative sample, the researchers selected a stratified random sample of fifteen states. The fifty states were ranked by U.S. population based on 1980 census data (Hoffman, 1989). The states were divided into quintiles of ten states each from largest to smallest. From each quintile, three states were selected by use of a table of random numbers. State directors of vocational education in the selected states were

contacted by mail and by telephone. They assisted us in securing lists of mailing addresses of all of their states' "first year vocational teachers." In two of the states, no such lists existed according to the vocational directors, so the researchers randomly selected replacement states from the same quintiles. This process required approximately three months.

Using the tables for sample size in Hinkle, Oliver, and Hinkle (1985), with alpha = .05, effect size = .10, and power = .95, the required sample size for a two-tailed one-sample survey would be 325. Using the logic presented later in the same article, the researchers elected to oversample based on the assumption of a less than 100% response rate, so the sample size was set at 500. The number of teachers needed from each of the selected states was determined based on the proportion of the total U.S. population living in that state in 1980. That number of teachers was then randomly selected from the respective state mailing list. In one state, the number of beginning vocational teachers was less than the number needed, so all of the beginning vocational teachers in that state were used.

From the initial responses, it became clear within about a week that as many as twenty-five percent of the teachers had been incorrectly identified as "first year teachers" by their directors. In many cases, the teachers had simply moved from one school to another or from one state to another. This was quite consistent with our earlier experiences in the qualitative sample (NGT) selections. To correct for that problem, a second mailing of an additional 125 surveys was made, giving a final total of n = 625. This eventually produced a usable response of 352, just over our required sample size of 325.

Data Collection Procedures

In general, a wide range of both qualitative and quantitative techniques have been used in this research. In this section, we will describe only those procedures used in the research being reported here. In reporting individual information, pseudo-names are used and actual school locations are disguised.

Transcript Analysis

- ***Daily Logs***

  At the beginning of their first year of teaching each of the twelve participating teachers was given a tape recorder, blank tapes, preaddressed and stamped mailers, and a set of questions to provide a format for a daily log. The teachers tape-recorded responses to the set of questions daily. The question set for the last day of each week, normally Friday, included several additional questions. At the end of each week, the teacher mailed the daily logs to the research office. The tapes were transcribed for analysis.

Case Studies

- ***Biographical and Situational Information***

  During NGT focus group sessions held in 1988 just after the beginning of the school year, we collected biographical information from each teacher by means of a background survey instrument administered at the group sessions. Information about the school size, types of vocational offerings, class loads, community, and other situational considerations was gathered by means of an Informational Survey administered at the group session.

- ***Personal Characteristics***

  To further enhance the detail of the case studies, we administered a series of commercially available or public domain instruments to each teacher. Included were the Meyers-Briggs Type Indicator Form G personality scale, the Brayfield Roth Job Satisfaction Scale, the Stress subscale of the Quality of Teacher Work Life Survey, Multiple Management Styles Inventory, The Leadership Ability Evaluation, and the Gregorc Style Delineator.

- ***Field Visits***

  We conducted three field visits, one each during the Fall, Winter, and Spring of school year 1988-89. Each field visit was conducted for a full day by a single researcher and was arranged with the teacher in advance. The visits were conducted with a predetermined agenda and set of detailed instructions. Extensive field notes were taken during the visit. At the conclusion of the visit, the field notes were used to reconstruct a tape-recorded, detailed description of the visit. The tapes

were later transcribed for analysis. During the field visits, the researcher observed several periods of the participant's instruction.

- ***Interviews***

  We conducted in-depth, structured interviews with each teacher at the beginning of their first year, at the end of the first year, and again at the end of the second year. The interviews ranged in length from about an hour to just over two hours. The interviewers used a series of lead questions to guide the interviews, but probed as needed to encourage more detailed answers and diverged from the interview guide whenever a point seemed worth following. The interviews were tape-recorded and then transcribed for analysis.

  During the field visits, the researcher interviewed the participant; principal; a peer, mentor, or buddy teacher; the vocational director; and one or more students from the participant's classes. The interviews were conducted in private settings, and absolute anonymity was assured to each interviewee. The interviews used a predetermined set of lead questions to provide structure but allowed for deviations. Each interview was tape recorded, and the tapes were transcribed for analysis.

- ***Daily Logs***

  This involved the same process as described in the previous section. See "Data Collection" under "Transcript Analysis," described previously.

- ***Weekly Logs***

  During their second year of teaching, the teachers tape-recorded a weekly log in response to a set of questions. The tapes were mailed in weekly and transcribed for analysis.

Nominal Group Technique (NGT) Sessions

The teachers in each regional session were segregated into samples for separate focus groups. The samples were based on the teacher's source of certification, and the teachers were not informed why they were in a particular focus group. Thus, we formed a focus group of NTEC teachers and a focus group of TEC teachers for each sample of

teachers. Each focus group was led through the following NGT procedure by two of the researchers who served as a group leader and as a recorder:

- *Question Clarification*
  A question was handed out and discussed so that all had a common understanding of its meaning.

- *Silent Generation of Ideas*
  The teachers were asked to generate a complete list of their own responses to the question. To the extent possible, complete silence was enforced, and the teachers were asked to work independently.

- *Round Robin Recording*
  One teacher was asked to provide a single response to the question. No value judgements, elaborations, defenses, or detailed explanations of the response were allowed. The group leader was not allowed to show judgement regarding the response but repeated it aloud to ensure that the teacher had been clearly understood. The recorder then wrote the response verbatim on a flip chart using a broad-tip marker. The response was assigned a number, beginning with one and continuing in sequence. Then the process was repeated for the next teacher, and so on until all teachers had exhausted their lists of responses. The teachers were instructed not to provide exactly duplicate responses, but where two responses differed by at least some "shade of meaning" both responses were recorded. When the page on the flip chart was full, it was removed from the tablet and taped onto the wall in clear view of all focus group members.

- *Clarification and Combination*
  The group leader led a discussion to clarify the meaning of each response beginning with number one and continuing through the complete set of responses. When two or more responses represented a single larger concept, they were combined by consensus among the focus group members. The discussion continued until the teachers seemed to have a common understanding of each item or item set.

- *Priority Selection*
  The recorder handed out a set of 3 x 5 index cards with the participants' code numbers and a code to identify the focus group and the specific question being asked. Each participant was then asked to select the ten responses from the list of

items and item sets that he or she felt to be most important. The teacher wrote the item number or numbers and the response or response set on the card.

- *Ranking*

  Each teacher was asked to place the cards on the table and sort them into rank order from most to least important. The rank was then recorded on the cards from 1=highest to 10=lowest. The cards were then collected along with the work sheets.

Each focus group was taken through three separate focus group sessions. In the case of the C/D sample, there were four questions. Each session lasted from just over an hour to over two hours. Each session involved a single question.

Exemplary Programs

As soon as the materials supplied by the contact persons described previously had been received, they were catalogued and examined. The materials were examined independently by three project researchers to determine which were of potential interest to this study. As soon as there was agreement, telephone contacts were made with directors of nine different programs in seven different states. Based on those telephone contacts, formal telephone interviews were conducted with the directors of six programs in four states.

As a result of the telephone interviews, two programs were selected for field visits. The decision was made based on the assumption that the telephone interviews would provide sufficient information on the remaining exemplary programs. A team of two researchers conducted a four-day field visit to examine both of these programs. During the field visits, the researchers made observations of facilities; sat in on inservice programs for beginning teachers, beginning "peer teachers," and peer teacher supervisors; interviewed county level administrators, beginning teachers, and peer teachers; visited professional development centers; and collected massive quantities of materials used in the programs.

National Survey

During 1990, the research team developed, validated, field tested, and established the reliability of a survey designed to provide a quantitative, nationally generalizable picture of the dynamics, nature, and scope of the induction process and needs of beginning vocational teachers. The survey was based on findings of the ethnographic and other

qualitative research from the first two years of the study. For details of the instrument development process, see the section titled "A National Survey of Beginning Vocational Teachers in the U.S." later in this paper, and see Appendix B for a copy of the survey instrument.

The survey instrument, which included a cover letter explaining the study, was mailed to the beginning teachers in Spring 1990. Using Dillman's Total Design Method (Dillman, 1978), the research team conducted three mail follow-ups. A total response rate of 76.3% (n = 477) was achieved. The first question asked the teacher to indicate whether he or she was actually a first year teacher. Persons who answered "no" were instructed to return the uncompleted survey. In general, the "no" respondents explained that they were new to the subject, school, school district, or even state, but were not actually "beginning teachers." Of the responses returned, twenty-six percent indicated they were not first year teachers. Thus, the number of usable responses was 352.

Unfortunately, by the time mailing lists were secured and the data collection was complete, the school year was over in part of the states selected. Because of Privacy Act concerns, the schools could not provide home addresses or telephone numbers of the non-respondents, so telephone follow-ups were impossible. A comparison of the demographics of the early and late responders, as suggested by Miller and Smith (1983), failed to show any significant differences.

Data Analysis Procedures

Transcript Analysis

- ***Item Identification and Coding***

  There were three broad areas (or domains) of particular interest for this part of the study: negative influences, positive influences, and significant events. The guides for the daily logs included a specific question to address each of these domains.

  Morgan (1988) described a process of content analysis in which similar situations or statements are identified and tallied in the analysis of focus group interview data. In this study, we used a similar approach to the analysis of individual transcript data. The transcripts were analyzed separately for each of the three broad domains. The domain of negative influences included those events and factors (both real and

imagined) that represented any kind of interference with the teacher's ability to perform in the role of teacher or those events that produced feelings of inadequacy or anxiety.

The positive influences domain included all positive items that facilitated the teacher's performance or provided encouragement. As with negative influences, positive influences included events, attitudes, and other kinds of real and perceived influences. The criterion was that the teacher's log gave some indication that the influence was positive in some way.

The final domain analysis being reported in this section is that of "significant events." Each teacher was asked to report a significant event daily. During the transcript analysis all items specifically reported as significant events were listed. In addition, whenever the teacher's log reported an incident that seemed important, it was recorded.

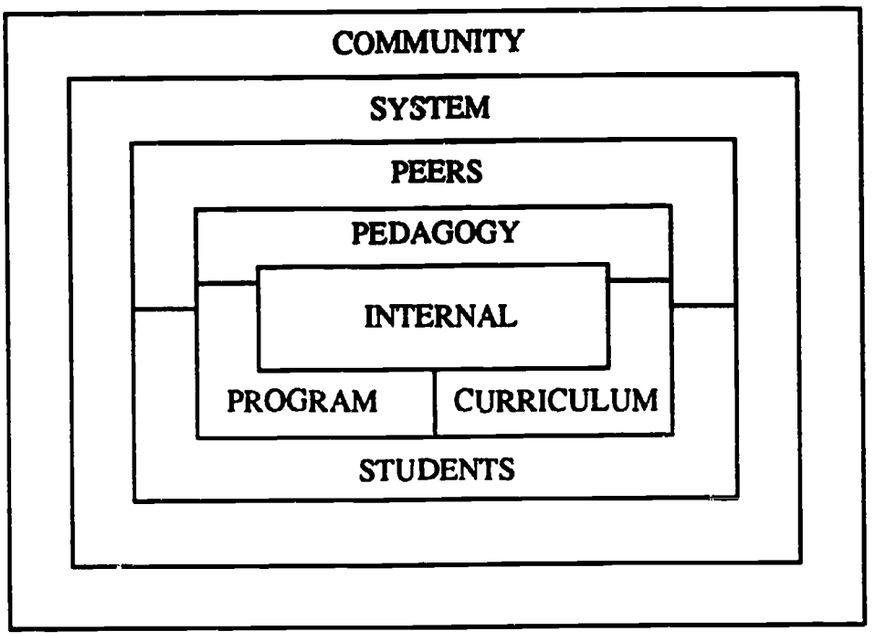
Items for a given domain were extracted by searching the complete set of transcripts specifically for that domain. As an example, during the analysis for negative influences, as an event, concern, or attitude that seemed to be negative in nature was located by the researcher, a brief anecdotal record (item) was recorded. Each item was classified by (1) whether the teacher was TEC or NTEC, (2) the week that the item was reported, and (3) the proximity category of the analytical framework within which the item fit (see next section). In the case of significant events, items were also classified as to whether they were judged to be positive, neutral, or negative in effect.

- ***Teacher Proximity Continuum***

To provide a basis for the data analysis, we used the "Teacher Proximity Continuum" (see Figure 4) to examine the influences and events that emerged from the domain analysis. The framework is based on the following eight proximity categories: internal, pedagogy, curriculum, program, students, peers, system, and community.

Figure 4

Teacher Proximity Continuum



INTERNAL	Experiences arising from factors within the teacher.
PEDAGOGY	Experiences related to the short term planning, delivery, evaluation, and improvement of instruction.
CURRICULUM	Experiences related to the intermediate term planning of course content and preparation for instruction.
PROGRAM	Experiences that arise in conjunction with the long term planning and operation of the department or program.
STUDENTS	Experiences resulting from interactions with students.
PEERS	Experiences arising from interactions with persons and coworkers who are neither superior nor subordinate.
SYSTEM	Experiences arising from persons and forces within the educational system with which the teacher is required to comply.
COMMUNITY	Experiences arising from outside the administrative and physical bounds of the educational system.

- *Generic/Vocational*

  Each item was further classified by whether it was generic or specific to vocational education. Items that would be applicable to any beginning teacher were classified as generic. Other items were judged to be specific to vocational education because of the unique characteristics of vocational education certification patterns, students, laboratories, cocurricular organizations, curriculum, data reporting, purchasing, and others.

Case Studies

Traditional case study techniques, as described by Yin (1989), were used. Transcripts of interviews, field notes, and daily and weekly logs were analyzed. In addition, data from personality, job satisfaction, stress, demographic, and situational questionnaires were used.

Yin (1989) advocated the use of a framework to guide case study data analysis. For the three agriculture teachers, the analysis was done using a chronological approach. This involved searching for ethnographic themes using the relative time frame as a guiding parameter—in essence, we asked the question, "What kinds of things were going on with these teachers during their first few weeks, first year, and so on."

In order to provide a different perspective with a second group of beginning vocational teachers, we decided to use a different analytical framework for the two marketing teachers. For this reason, the "Teacher Proximity Continuum," as reported by Heath-Camp and Camp (1990) was used (see Figure 4). The "Teacher Proximity Continuum" provides an analytical framework that allows for the classification of data into ordinal categories based on its conceptual distance from the teacher.

The most proximate category is Internal and it involves personal characteristics and personal values. Examples of Internal occurrences would be the beginning teacher's inability to handle stressful situations, an overwhelming fear of rejection, or a personal desire to be of service to people.

The most distant category is Community, involving things that lie outside the educational enterprise but impacting on the teacher in some tangible way. Examples of Community factors might be a very supportive business community, situations arising

from the distance to the teacher's residence, or problems with heavy traffic en route to school.

Nominal Group Technique (NGT) Sessions

All of the responses were typed verbatim from the complete list for each NGT session. The sets of items that had been combined by focus group consensus were placed together. Actual scoring of the items and subsequent ranking were done as a separate operation.

Item scoring was done as follows. Within a focus group all items selected as among the top ten by any teacher were listed. Each time an item or item set was listed, a point value (Rank 1 = 10 points; Rank 10 = 1 point) was assigned. The point values for each ranked item/item set were summed and then multiplied by the number of teachers who had ranked it. The items/item sets were then ranked based on the total score for that focus group.

To determine priorities of most experience problems and needed assistance across groups, items for each group were assigned a number; that is, priority one = 10, priority two = 9, and so on. Items for all groups that had similar meanings were grouped with their value scores. Value scores were added together, and the sum of the scores was multiplied by the frequency the item was ranked. This process provided a consensus of problems and assistance needs across groups in the same manner that the consensus within groups was derived.

Exemplary Programs

Materials mailed to the research team were analyzed for applicability. Based on that and the joint judgement of the research team members, exemplary programs deserving further examination were selected. Telephone interviews, on-site interviews, and field notes were transcribed and case study techniques, similar to those discussed above, were used.

National Survey

Data collected from the national survey was computer coded and the SAS statistical package was used to provide analysis. The data reported in this document was analyzed using descriptive techniques.

DAILY LIFE OF TWELVE BEGINNING VOCATIONAL TEACHERS

This section presents the results of the transcript analysis of the daily and weekly tape-recorded logs of twelve beginning teachers of vocational education from three Eastern Seaboard states throughout their first two years of teaching.

Demographics

Of the twelve first year teachers, five were graduates of teacher education programs (TEC) and seven were certified through either vocational or alternative routes (NTEC). Of the NTEC teachers, three held degrees in the technical fields in which they taught, one held a Master of Fine Arts degree, one held an associate degree in nursing, and two held high school diplomas. Of the seven NTEC teachers, two were certified through "alternative" certification and five were "vocationally" certified.

There were seven males and five females. Occupational experience varied from several years in part-time jobs for one teacher education graduate to over twenty-five years in the relevant trade for one high school graduate. Two of the teachers were African American and ten were white. Six taught in comprehensive high schools, three were in vocational centers, two were in middle schools, and one was teaching one-half day in each of two junior high schools. The following services were represented: health, agriculture, T&I (machinery), T&I (printing), marketing, technology, career exploration, and home economics.

Several interesting comparisons are possible between the teacher education and nonteacher education teachers. One interesting comparison is that of the five beginning teachers with teacher education backgrounds, the average age was twenty-three and only

one was married. Of the seven with alternative or vocational certification, the average age was thirty-eight and only one was single.

Themes for Analysis

The transcripts were examined for several themes. The first theme that we looked at was that of negative influences. They were defined as problem situations or other influences that presented obstacles to the teacher's success or detracted from the teacher's feelings of self-efficacy. We then examined the transcripts for positive influences—encouragements, successes, feelings of strength, or other things that contributed to the teacher's success or feelings of self efficacy. Finally, we analyzed the transcripts for significant events. These were defined as occurrences that affected the teacher in some meaningful way as evidenced by the event being recounted in the log.

Negative Influences

Negative influences for TEC teachers and NTEC teachers were compared across the eight proximity categories of the Teacher Proximity Continuum analytical framework. The NTEC teachers reported a total of 1100 negative influences and TEC teachers reported 677 negative influences. That difference is not as extreme as it would seem. With n=7, NTEC teachers reported a mean number of items of 157.1. At n=5, the TEC teachers reported a mean of 135.4 items. The overall mean number of negative influences per teacher was 148.1.

Certification Source

An examination of Table 1 reveals that, for both groups of teachers, the most important proximity category of negative influence is students, followed by system. NTEC teachers' numbers of negative influences were relatively higher than the TEC teachers for curriculum, pedagogy, peers, students, and system related negative influences.

It is important to notice that for both groups, the most important proximity category of negative influences averaged was students, 37.8%, followed by system, 22.9%, with community and curriculum at the opposite end, 2.3% and 1.1%, respectively.

Table 1

Negative Influences for All Teachers:
Proximity Category of Negative Influences by Source of Certification

PROXIMITY CATEGORY	SOURCE OF CERTIFICATION					
	NTEC	PERCENT	TEC	PERCENT	TOTAL	PERCENT
Community	14	1.3%	27	4.0%	41	2.3%
Curriculum	17	1.5%	3	0.4%	20	1.1%
Internal	113	10.3%	92	13.6%	205	11.5%
Pedagogy	100	9.1%	38	5.6%	138	7.8%
Peers	46	4.2%	24	3.5%	70	3.9%
Program	118	10.7%	107	15.8%	225	12.7%
Students	427	38.3%	244	36.0%	671	37.8%
System	265	24.1%	142	21.0%	407	22.9%
TOTAL PERCENTAGE	1100 (61.9%)		677 (38.1%)		1777 (100%)	

Notes: NTEC—Nonteacher Education Certified (alternative or vocational)
TEC—Teacher Education Certified

Generic/Vocational

We then examined the data for evidence of the proportion of negative influences that were specific to vocational education. In general, we found that most negative influences faced by the beginning vocational teacher were generic in nature (75.2%) (see Table 2). On the other hand, of all the negative influences experienced by beginning vocational teachers nearly a fourth (24.8%) could be attributed to the unique characteristics of vocational education.

In particular, we found a huge disparity in terms of program-related negative influences. In that category, 75.1 % of all negative influences were judged to be specific to vocational education. Of the system related negative influences, 32.4% were vocational education specific. In the remaining proximity categories, the proportion of negative influences attributable to vocational education specific sources was considerably lower.

Semester

We then sought to determine whether the nature of the negative influences changed over the course of the year. To do that, we collapsed the thirty-six weeks of the school year into two eighteen-week semesters and compared the negative influences using our eight-category analytical framework. We found that the number of negative influences identified was fairly even for the first and second semesters (nine hundred twenty-eight and eight hundred forty-nine respectively) (see Table 3).

Negative influences associated with both pedagogy and students were relatively more important during the first semester than during the second semester. Both program and system related negative influences grew in terms of their relative frequencies during the second half of the year.

Positive Influences

Positive influences for TEC teachers and NTEC teachers were compared across the eight proximity categories of the analytical framework. The NTEC teachers reported a total of five hundred thirty-three positive influences and TEC teachers reported four hundred twenty-five positive influences. That difference is not as extreme as it would seem. With n=7, NTEC teachers reported a mean number of items of 76.1. At n=5, the TEC teachers

reported a mean of 85.0 items. The overall mean number of positive influences per teacher was 79.8.

Certification Source

An examination of Table 4 reveals that the proximity category of students was the major contributor of positive influences for the total sample of teachers. Students as a contributor were even more important to NTEC teachers (64.5% of their positive influences) than to TEC teachers (40.7% of their positive influences).

There were only three important sources of positive influences to the teachers over their first year—internal, the students, and the system. The other five proximity categories contributed less than sixteen percent of the total number of positive influences identified, with the teachers' peers being surprisingly low. We would have expected more positive feedback from co-workers than thirty-eight incidents for twelve teachers over an entire year of experience.

Generic/Vocational

We then sought to determine the extent to which the various kinds of positive influences for beginning vocational teachers could be considered to be vocational education specific. Table 5 reflects that analysis, with over 31.3% of all positive influences being attributable to vocational education specific causes.

As we saw in Table 4, by far the most important source of all positive influence was students. But students are more important as a source of vocational education specific positive influences (70.7%) than generic positive influences (46.4%).

In general, our teacher sample derived least positive influence from their curriculum, pedagogy, community, peers, or program. There was a near absence of vocational education specific positive influence for the proximity categories of curriculum, pedagogy, and internal. The lack of vocational education specific positive influences in these categories is particularly interesting in light of the comments made by several of the teachers in their interviews. The analysis of the interviews will not be attempted in this section; however this point is worth making. When asked why they chose to enter teaching, frequent responses included a love for their subject matter or discipline and a desire to transmit that feeling to others. Based on that, one might have expected more

Table 2

Negative Influences for All Teachers: Proximity Category of Negative Influences by Generic/Vocational

PROXIMITY CATEGORY	GENERIC	PERCENT	VOC-ED	PERCENT	TOTAL	PERCENT
Community	30	2.2%	11	2.5%	41	2.3%
Curriculum	17	1.3%	3	0.7%	20	1.1%
Internal	202	15.1%	3	0.7%	205	11.5%
Pedagogy	114	8.5%	24	5.5%	138	7.8%
Peers	61	4.6%	9	2.0%	70	3.9%
Program	56	4.2%	169	38.4%	225	12.7%
Students	582	43.5%	89	20.2%	671	37.8%
System	275	20.6%	132	30.0%	407	22.9%
TOTAL	1337		440		1777	
PERCENTAGE	(75.2%)		(24.8%)		(100%)	

Table 3

Negative Influences for All Teachers: Semester by Proximity Category of Negative Influences

PROXIMITY CATEGORY	SEMESTER					
	ONE	PERCENT	TWO	PERCENT	TOTAL	PERCENT
Community	19	2.0%	22	2.6%	41	2.3%
Curriculum	9	1.0%	11	1.3%	20	1.1%
Internal	100	10.8%	105	12.4%	205	11.5%
Pedagogy	85	9.2%	53	6.2%	138	7.8%
Peers	38	4.1%	32	3.8%	70	3.9%
Program	103	11.1%	122	14.4%	225	12.7%
Students	378	40.7%	293	34.5%	671	37.8%
System	196	21.1%	211	24.9%	407	22.9%
TOTAL	928		849		1777	
PERCENTAGE	(52.2%)		(47.8%)		(100%)	

Table 4

Positive Influences for All Teachers: Proximity Category of Positive Influences by Source of Certification

PROXIMITY CATEGORY	SOURCE OF CERTIFICATION					
	NTEC	PERCENT	TEC	PERCENT	TOTAL	PERCENT
Community	11	2.1%	19	4.5%	30	3.1%
Curriculum	3	0.6%	0	0.0%	3	0.3%
Internal	53	9.9%	88	20.7%	141	14.7%
Pedagogy	22	4.1%	7	1.6%	29	3.0%
Peers	16	3.0%	22	5.2%	38	4.0%
Program	29	5.4%	24	5.6%	53	5.5%
Students	344	64.5%	173	40.7%	517	54.0%
System	55	10.3%	92	21.6%	147	15.3%
TOTAL	533		425		958	
PERCENTAGE	(55.6%)		(44.4%)		(100%)	

Notes: NTEC—Nonteacher Education Certified (alternative or vocational)
TEC—Teacher Education Certified

Table 5

Positive Influences for All Teachers:
Proximity Category of Positive Influences by Generic/Vocational

PROXIMITY CATEGORY	GENERIC	PERCENT	VOC-ED	PERCENT	TOTAL	PERCENT
Community	20	3.0%	10	3.3%	30	3.1%
Curriculum	3	0.4%	0	0.0%	3	0.3%
Internal	138	21.0%	3	1.0%	141	14.7%
Pedagogy	26	4.0%	3	1.0%	29	3.0%
Peers	28	4.3%	10	3.3%	38	4.0%
Program	12	1.8%	41	13.7%	53	5.5%
Students	305	46.4%	212	70.7%	517	54.0%
System	126	19.2%	21	6.9%	147	15.3%
TOTAL	658		300		958	
PERCENTAGE	(68.7%)		(31.3%)		(100%)	

vocational education specific positive influences to emerge from the internal and curriculum proximity categories. The single exception was the program category which accounted for 13.7% of all vocational specific positive influences, even though only 5.5% of all positive influences were classified into this category.(see Table 4).

Semester

By comparing the frequencies reported in each proximity category by semester, we next sought to determine whether the pattern of positive influences changed over the course of the year. In general, the number of positive influences reported fell from 582 during the first semester to 376 during the second semester, indicating a decrease in the frequency with which positive experiences were reported over the course of the year (see Table 6).

During the first semester, internal positive influences made up 18.0% of the total. During the second semester, that had dropped to 9.6% of the total.

Significant Events

One of the questions the teachers were asked to respond to daily asked for a description of some significant event. We did not limit our analysis of significant events to those specifically by the teacher. Many important incidents were described in other parts of the tapes. Thus, it was necessary to read the entire set of transcripts to isolate (1) all of the incidents from the transcripts that the teachers had reported as significant events and (2) other anecdotes that were reported in enough detail to indicate some importance to the teacher at the time.

It is important to note that not all positive influences or negative influences could be considered significant events because not all of them were events at all. Rather, many of the negative influences and positive influences were attitudes and judgements. By the same token, not all of the significant events could be considered negative influences or positive influences because many of them were neither negative nor positive—they were significant merely because they required time or thought.

We identified 2,073 significant events. NTEC teachers (n=7) reported 1101 events for a mean of 157.3 per teacher. TEC teachers (n=5) reported 972 events for a mean of

194.4 per teacher. The events were all classified by proximity category, week of occurrence, teacher, generic/vocational, and positive/neutral/negative effect.

Certification Source

An analysis of Table 7 shows that on average students dominated the domain of significant events (31.4%). This time, however, there was a very close second—the system (30.1%). In contrast to the two earlier domains, the third most important proximity category of significant events was program related (14.2%) followed by pedagogy (11.2%).

Generic/Vocational

Of the two thousand seventy-three significant events identified, five hundred sixty-one (27.1%) were vocational education specific, see Table 8. Although the community related events did not figure prominently in the total, they were relatively more important within the vocational education specific than the generic events. Events that stemmed from internal sources were almost all judged to be generic. Program related events were highly vocational education specific—an additional computation reveals that over eighty-seven percent (257/295) of all program related events were vocational education specific. In fact, by far the largest contributor to vocational education specific events was the program category.

Semester

To determine whether the pattern of events changed over the course of the year, we compared proximity categories of events by semester, see Table 9. We found little change in this regard. This contrasts to the results reported earlier under both positive influences and negative influences.

Positive, Neutral, or Negative Effect

The final major element of analysis of the significant events involved the consideration of positive, neutral, or negative effect. This involved reading the transcripts to determine the context within which the event was described. In some cases, the teacher was describing an event in direct response to a question regarding a problem or a success

Table 6

Positive Influences for All Teachers: Semester by Proximity Category of Positive Influences

PROXIMITY CATEGORY	SEMESTER					
	ONE	PERCENT	TWO	PERCENT	TOTAL	PERCENT
Community	18	3.1%	12	3.2%	30	3.1%
Curriculum	3	0.5%	0	0.0%	3	0.3%
Internal	105	18.0%	36	9.6%	141	14.7%
Pedagogy	15	2.6%	14	3.7%	29	3.0%
Peers	20	3.4%	18	4.7%	38	4.0%
Program	32	5.5%	21	5.6%	53	5.5%
Students	302	51.9%	215	57.2%	517	54.0%
System	87	14.9%	60	16.0%	147	15.3%
TOTAL	582		376		958	
PERCENTAGE	(60.8%)		(39.2%)		(100%)	

Table 7

Significant Events for All Teachers: Proximity Category of Significant Events by Source of Certification

PROXIMITY CATEGORY	SOURCE OF CERTIFICATION					
	NTEC	PERCENT	TEC	PERCENT	TOTAL	PERCENT
Community	17	1.5%	40	4.1%	57	2.7%
Curriculum	3	0.3%	8	0.8%	11	0.5%
Internal	55	5.0%	75	7.7%	130	6.3%
Pedagogy	143	13.0%	90	9.3%	233	11.2%
Peers	39	3.5%	32	3.3%	71	3.4%
Program	117	10.6%	178	18.3%	295	14.2%
Students	396	36.0%	255	26.2%	651	31.4%
System	331	30.1%	294	30.2%	625	30.1%
TOTAL	1101		972		2073	
PERCENTAGE	(53.1%)		(46.9%)		(100%)	

Notes: NTEC—Nonteacher Education Certified (alternative or vocational)
TEC—Teacher Education Certified

Table 8

Significant Events for All Teachers:
Proximity Category of Significant Events by Generic/Vocational

PROXIMITY CATEGORY	GENERIC	PERCENT	VOC-ED	PERCENT	TOTAL	PERCENT
Community	37	2.4%	20	3.6%	57	2.7%
Curriculum	5	0.3%	6	1.1%	11	0.5%
Internal	127	8.4%	3	0.5%	130	6.3%
Pedagogy	195	12.9%	38	6.8%	233	11.2%
Peers	63	4.2%	8	1.4%	71	3.4%
Program	38	2.5%	257	45.8%	295	14.2%
Students	510	33.7%	141	25.1%	651	31.4%
System	537	35.6%	88	15.7%	625	30.1%
TOTAL	1512		561		2073	
PERCENTAGE	(72.9%)		(27.1%)		(100%)	

Table 9

Significant Events for All Teachers: Semester by Proximity Category of Significant Events

PROXIMITY CATEGORY	SEMESTER					
	ONE	PERCENT	TWO	PERCENT	TOTAL	PERCENT
Community	34	3.0%	23	2.4%	57	2.7%
Curriculum	5	0.4%	6	0.6%	11	0.5%
Internal	61	5.4%	69	7.3%	130	6.3%
Pedagogy	130	11.6%	103	10.8%	233	11.2%
Peers	46	4.1%	25	2.6%	71	3.4%
Program	145	12.9%	150	15.8%	295	14.2%
Students	367	32.7%	284	29.9%	651	31.4%
System	335	29.8%	290	30.5%	625	30.1%
TOTAL	1123		950		2073	
PERCENTAGE	(54.2%)		(45.8%)		(100%)	

and the determination of the effect was simple. In other cases, the researchers were more subjective.

In general, there were many more positive events reported (one thousand nineteen) than either neutral events (three hundred seventy-nine) or negative events (six hundred seventy-five). This finding is in stark contrast to the much larger number of negative influences (one thousand seven hundred seventy-seven, see Table 1) than positive influences (nine hundred fifty-eight, see Table 4) reported earlier. This finding is also in marked contrast to the domination of the induction literature by consideration of problems and concerns of beginning teachers.

Table 10 reflects the examination of effect by proximity category. The largest proportion of negative events (49.8%) were student related, with system related events second (25.9%). For neutral events, the educational system predominated (47.5%) followed by pedagogy (31.7%). For positive events, students, system, and program (27.8%, 26.5%, and 22.1%, respectively) predominated.

Clearly, pedagogy related events were important in the beginning teachers' lives, but they tended to be simply work, with little emotional effect—neutral. Events related to students and the program, on the other hand, tended to be almost totally positive or negative in effect.

We then analyzed the relationship between the source of teacher certification and the effect of events. Teachers from teacher education backgrounds tended to report larger proportions of events that were judged to be positive and fewer neutral, than did nonteacher education certified teachers.

Finally, we examined the relationship between the events' effect and whether the events were generic or vocational (see Table 11). Interestingly, the generic events tended to be highly negative (587 = 38.8% of all generic events) and the vocational education specific events tended to be very highly positive (398 represents 70.9% of all vocational events). Indeed, an extremely small proportion of the vocational education specific events were negative (88 = 15.6% of all vocational events).

Generic/Vocational

Finally, we examined the data for evidence of the proportion of the negative influences that were specific to vocational education. This was an attempt to discover whether the problems, discouragements, and other impediments experienced by beginning vocational teachers were any different from those experienced by other beginning teachers.

In general, we found that most negative influences faced by the beginning vocational teacher were generic in nature (86.9%) (see Table 12). On the other hand, of all the negative influences experienced by beginning vocational teachers, only thirteen percent could be attributed to the unique characteristics of vocational education.

CASE STUDIES OF TWO BEGINNING MARKETING TEACHERS

Case studies were conducted for two first year teachers of marketing. Spradley (1979) discussed the process of analyzing ethnographic data to discover themes. Yin (1989) outlined a technique for analyzing case study data by "relying on theoretical propositions" (p. 106). In this analysis, we used an amalgam of these two approaches. Overarching themes were identified by a broad brush analysis of the data. Then we used the Teacher Proximity Continuum (see the section titled "Methodology") as the theoretical framework to guide detailed analysis and interpretation within those broad themes.

The reader will find the overarching themes represented as major section headings (i.e. Personal Background, Characteristics of the Program, and others.) The analysis and interpretation within each section are based on the categories of the Teacher Proximity Continuum.

The Case of Jake Seekman

Personal Background

From an internal perspective, Jake Seekman had wanted to teach school since he had been in high school. He got married at a very young age and dropped out of college. After a divorce, he intended to return to school, but the opportunity didn't come along. Jake had gone into retailing as his career, but he realized retailing was not what he wanted

Table 10

Significant Events for All Teachers: Proximity Category of Significant Events by Effect

PROXIMITY CATEGORY	EFFECT							
	NEGATIVE	PERCENT	NEUTRAL	PERCENT	POSITIVE	PERCENT	TOTAL	PERCENT
Community	15	2.2%	1	0.3%	41	4.0%	57	2.7%
Curriculum	1	0.1%	2	0.5%	8	0.8%	11	0.5%
Internal	79	11.7%	4	1.1%	47	4.6%	130	6.3%
Pedagogy	15	2.2%	120	31.7%	98	9.6%	233	11.2%
Peers	20	2.9%	4	1.1%	47	4.6%	71	3.4%
Program	34	5.0%	36	9.5%	225	22.1%	295	14.2%
Students	336	49.8%	32	8.4%	283	27.8%	651	31.4%
System	175	25.9%	180	47.5%	270	26.5%	625	30.1%
TOTAL	675		379		1019		2073	
PERCENTAGE	(32.6%)		(18.3%)		(49.1%)		(100%)	

Table 11

Significant Events for All Teachers: Source of Certification by Effect

GROUP	NEGATIVE	PERCENT	NEUTRAL	PERCENT	POSITIVE	PERCENT	TOTAL	PERCENT
NTEC	368	54.5%	245	64.6%	488	47.9%	1101	53.1%
TEC	307	45.5%	134	35.4%	531	52.1%	972	46.9%
TOTAL	675		379		1019		2073	
PERCENTAGE	(32.6%)		(18.3%)		(49.1%)		(100%)	

Notes: NTEC—Nonteacher Education Certified (alternative or vocational)
TEC—Teacher Education Certified

Table 12

Significant Events for All Teachers: Generic/Vocational by Effect

GENERIC/ VOCATIONAL	NEGATIVE	PERCENT	NEUTRAL	PERCENT	POSITIVE	PERCENT	TOTAL	PERCENT
GENERIC	587	86.9%	304	80.2%	621	60.1%	1512	72.9%
VOC-ED	88	13.0%	75	19.8%	398	39.1%	561	27.1%
TOTAL	675		379		1019		2073	
PERCENTAGE	(32.6%)		(18.3%)		(49.1%)		(100%)	

to do. So, with encouragement from his second wife, he pursued his high school desires and finished his degree in Summer 1988. The process had taken him seventeen years.

When Jake's personality was evaluated through the Meyers-Briggs personality instrument (Briggs & Meyers, 1987), he tested as an ISTP (Introverted, Sensing, Thinking, Perceiving). The interpretation of an ISTP is one who is quiet, reserved, and observing. They analyze life with detached curiosity. These individuals are usually interested in cause and effect, how and why mechanical things work, and in organizing facts using logical principles (Meyers-Briggs Type Indicator-Form G). Jake did seem quiet and to be "taking things in" at the first meeting for this study, but by the end of the year he seemed to have become an outgoing and ready-to-share individual.

Jake began his career as a marketing teacher in August of 1988, at a southern high school. Jake was a thirty-five year old, Caucasian, father of one when the study began. He lived in a town thirty miles from work and spent about ninety minutes traveling to and from school each day. His wife was in a white collar professional position. Jake had nine years of experience in retailing, sales, and management. He had served six years in the military and coached one year at a university. He had a Bachelor of Science in Business Administration and is currently working toward a master's degree and teaching certification. At the beginning of the school year, Jake planned to teach twenty to thirty years. At the end of the school year, he still planned to teach for twenty years; however, he said he would take a coaching job at a small college.

Characteristics of the Program

Jake was the only teacher in the marketing program at his school. Jake believed that the marketing program had been going downhill for a number of years. During his first year, he taught three courses—marketing, marketing and merchandising, and fashion merchandising. Out of the forty-three students enrolled in his program, all juniors and seniors, forty-two were females. His three class enrollments were sixteen, twenty-two, and five students. The classes were made up of predominantly white students with only seven multicultural students. He expected to add a second fashion merchandising class in the Fall of his second year. Eighty-nine percent of the students were working in marketing jobs, and Jake had allocated enough time to visit their workplaces. All of the students were members of Distributive Education Clubs of America (DECA), the organization for marketing students. He had a[illegible]late resources for his program, but indicated that these

were marginal. In the third week of September, he was still waiting for a promised computer which did not arrive until much later in the year.

Jake's program was located in a school built in 1956, with slightly over one thousand students. The school was located in a thriving rural county with many new businesses and a jobless rate of only 2.1% in 1988. There was a very large metropolitan area located about thirty miles from the school. At the beginning of his first year, Jake did not have an advisory committee, but he did form one during that first year.

Orientation and Preparation

Jake was interviewed for his teaching position, on Monday, August 29, and started work on Tuesday. School had already been in session eight days prior to his first day on the job. Because Jake was a late hire, he was predisposed to encounter problems in the educational system. Jake's orientation consisted of the following: "I was told what courses I would be teaching, where to park, and given the key to my office. Actually on the twenty-ninth, I spent one hour with Ms. Jones, the person I was replacing, but no real value came of it." He was given names of the students on his first day on the job. He said he "thrived on pure excitement," for the first three days, but, by Thursday, he "was wondering, what the hell do I do now."

In September, Jake really didn't seem to be too sure about who he was to report to, but he did know the names of the principal, vocational director, and department chairperson. He had to ask and was directed through about a half a dozen people before he was able to find out how much money he had for his program.

Prior to interviewing for his position, he attended the state's vocational education conference on his own time. There was a new teachers' session at the conference and Jake had attended.

Jake thought that his retail experience and working with marketing students and teachers as an employer were very beneficial. Jake felt comfortable teaching marketing, but he expressed that terminology, the history, and "all that other stuff" required a lot more work than he had expected. He said he did not feel as secure teaching fashion as he did teaching general marketing. He also expressed that he felt somewhat ill-prepared because he had not taken the courses that teacher education graduates normally have. He stated that

he did not know what he referred to as "the six steps in a lesson" and that learning to plan lessons well would be one of his primary goals for his first year.

School Responsibilities

Jake's day started at 8:00 a.m., and he could go home at 3:30 p.m. That was a big change for Jake. In retailing he started about 10:00 a.m., but didn't get home until about 10:00 or 11:00 p.m. The students began their day at 8:30 and left school at 2:54 p.m. Jake not only taught marketing, but he served as the DECA advisor, coordinated on-the-job training, and had a senior home room. He also served on the Vocational Education Improvement Committee. Jake taught three classes of marketing with three different preparations, coordinated on-the-job training for two periods, and had one planning period. At the beginning of his first school year, he was spending about fifty to sixty hours a week performing his responsibilities as a teacher. By the end of that school year, he reported spending about forty-eight hours on job-related activities.

In addition to his teaching responsibilities, Jake was an assistant coach for both basketball and baseball. He was employed for approximately six weeks during the summer as the industry education coordinator and was responsible for building strong relationships with businesses.

Relationships

Jake thought that he had a good relationship with his students, more like an employer/employee relationship. He seemed to be disappointed in their level of interest in the beginning, but, when he adjusted his expectations, he became more comfortable. He felt like he had a great relationship with his principal, the state staff, and teacher educators. However, he seemed to have a negative relationship with the secretaries and later experienced some problems with his vocational director.

Negative influences

In the beginning, Jake thought his biggest problem was having so many females in his fashion class. He stated,

> For fashion merchandising, you should have twelve, fifteen maximum, and we have twice that many and you can't have that and do this kind of thing—everybody I've talked to who teaches fashion has [asked] what are you going to do with all these ladies? That's been my biggest problem.

As the year progressed, Jake's most frequent problems were related to his students and to the educational system. The problems with students were focused on students talking in class, not paying attention, and not doing their assignments—that is, just general class behavior. In November, Jake stated,

> The most significant event that happened today—for the first time since I started teaching—I lost it and blew my cool. I threw a fit. I don't know what happened. I just got tired of telling everybody to be quiet, you know, walking around. I felt like Smokey the Bear, walking from table to table to get them to shut up and kids—you know, in th first period, talking across the room, and finally, it just got the best of me.

A second problem that confronted Jake was student motivation: "I guess you learn no matter what you do and what you say, no matter how much you try, there are just some students who just don't give a damn. I guess that's the burden of education."

When system related problems were identified, Jake described many incidents of paperwork. "I don't think you quite realize day in and day out what you have to do. When you're out for three or four days, and all of a sudden you come back, and people want this, and they want that, and they needed that form two days ago, and you were gone. So, I have quite a bit of paperwork to catch up on." He often didn't know what forms were to be filled out, and when they were due. For example, Jake recounted an incident in which he had been asked by a secretary for a particular report form that was due. Jake's comment to us was, "What form are you talking about? Nobody told me anything about a form. Nobody! You know, like I [said], they just gave me the keys and said show up the next day." He also experienced problems from a lack of knowledge about procedures such as school rules, how to get funds, the chain of command, and procedures for taking overnight trips with students. He stated, "If you want to buy something, there is so much administrative paperwork that it's unreal. I guess, it has to be, but it seems to be outlandish." The secretary in the school gave him problems about writing checks from his DECA account. "We did have a discussion about controlling funds because this lady was telling me what I could and could not spend my funds for." Other activities, created by the system, seemed to consume his time—activities such as being away from school for a week of inservice, collecting money, and most of all coaching.

As a new teacher, Jake identified his major problems with curriculum and teaching as the preparation of lesson plans—developing the plan, having them done ahead of class, and making them interesting:

> I just have to get on the ball and get lesson plans made up in advance instead of doing them every night—it's awful easy when you get home to kind of put it up and put it off, put it off, put it off, and pretty soon it's time to go to bed, or it's too late, or you don't do a very good job, and so you just come in the next morning, and you try to throw something together, and you're not doing yourself or the students justice at all. So, this is something that I have to work on.

He also had some difficulty with calculating grades and with students doing poorly on his tests.

Jake's most distracting program problems were related to the student organization and to a fashion show his program was implementing. Within these two activities, scheduling and taking care of fund raising activities consumed a great deal of his time.

Jake's biggest internal problem throughout the year was time management. He stated in October of his first year, "I'm just going to have to take better care of my desk, and get a little [better at] time management and put things away instead of just bringing files and putting them on my desk. At this point in time, you can't even see my desk so, it's going to take a little bit of work to get it done." He had a problem getting everything done and was showing a higher score on a stress scale (Pelsma, Richard, Harrington, & Burry, 1989) than two-thirds of the new teachers in the overall study. However, his job satisfaction seemed to be quite high (Brayfield & Roth, 1951). In fact, his scores on the instrument used were seventy-six out of a maximum of eighty-eight at the end of his first year and seventy-seven out of eighty-eight at the end of year two. So, even though he endured a great deal of stress he felt reasonably satisfied with his job.

Other categories of negative influences for Jake were minimal. One irritant he spoke of in his daily logs was the fact that his peer teachers socialized too much on teacher work days instead of working. He mentioned at the end of the year that, "The secretaries and I have had battles." The only community problem he identified was connected with the fashion show; he had problems getting merchants to donate merchandise.

Assistance Received

Once Jake started his teaching position, he went to other marketing teachers who he had worked with as an employer. The information and materials these teachers shared with him were of great value.

Jake did have a mentor assigned to him, a home economics teacher. He said, "I'm sure she's going to be helpful, and I make it a point to stop by every day when I'm leaving to go out on co-op and let her know, hey, I'm not going to be here. She hasn't really answered any of my questions directly. She's been more referring me to other people." He indicated that she didn't always know the answer or who to go to for the answer. The teacher next door also volunteered to help Jake.

Jake thought that his students were the biggest help to him. He was straight forward and honest with them in the beginning about his being a first year teacher, and he felt that they were extremely cooperative.

Jake's most frequently mentioned (daily logs) source of assistance was the educational system. The system, to include state activities as well as local ones, provided Jake with several workshops which assisted him in learning program activities, behaviors of an effective teacher, lesson planning, and paperwork. Even though Jake identified paperwork as a problem in his job, he received assistance with that paperwork from his mentor, department head, personnel in the county school office, the vocational education director, office staff, state staff, and the administration.

There were two additional sources of assistance—his peers and the community. His peers helped him with activities such as working with students, providing information, and giving him teaching ideas. As stated previously, he had other marketing teachers who he felt free to call when he needed help with DECA forms or other program related questions. The community business personnel were cooperative in donating fashions for the fashion show that his students were producing.

Positive Influences

Even though Jake experienced an array of problems throughout his first year, he also experienced a great deal of satisfaction in teaching. As with the distractions in teaching, his positive influences came predominantly from the students and the system.

Jake found it rewarding when he saw his students succeed. The students' involvement in DECA appeared to give Jake a great deal of pride. He was pleased when they were nominated for an office, participated in the competitions, and won awards for their efforts. "It is, you know, something that I'm quite proud of. The fact is, this is the first time that Winn High School has sent a student to nationals to actually compete." He

also found satisfaction when the students did well on tests. When Jake spoke of rewarding experiences relating to both students and his program, DECA and its related activities and the students' accomplishments were mentioned most frequently.

Jake was also pleased when his principal gave him positive feedback for the job he was doing. As he mentioned in his daily logs, events that were especially important to him were recognition and praise from his principal when his team won a baseball game or when students did well in DECA competition. "At this point, I'm enjoying teaching more. I think part of it is because I'm getting involved in other things—the coaching, for one. The DECA—a good active group going to state or excuse me, we're going to state—also going to district and winning and doing so well. It made me feel good. It kind of spurred me on."

When Jake was asked on a daily basis about good things that happened, quite often comments were made like, "It's Friday," or "Getting through the day." And, even though coaching was a problem in that it consumed so much time, it was rewarding to him, and he wanted to coach. When he found out he would be coaching his comment was,

> I'm going to be coaching baseball—it was officially announced, and I'm going to be coaching soccer next year and baseball . . . and they've asked me to coach basketball. So, that probably comes with being a new teacher—part of it is because, you know, I really want to do it.

Later he also stated in relation to teaching and coaching, "I still believe that it was the right move. The coaching part has been a real influence lately. Baseball was my first love, and I really enjoy coaching . . . baseball. One of the main reasons for me to get into education was the chance to coach."

Since testing and grading were negative activities for Jake, it became noteworthy for him to mention it as being a positive activity when the grades were completed. Getting these activities over for him was a relief.

End of Year One

Jake finished the year believing that his coworkers thought he was doing a good job. He had received favorable comments from them about both the fashion show and the student members of DECA. Jake believed that he had improved as a teacher. "I have become a better teacher just through experiences—trial and error." When he was asked if

his feelings had changed in regard to himself as a teacher, he stated, "I wonder why I hadn't done it many years ago. . . . I didn't realize it would be so self-rewarding and make me feel good about what I was doing."

Year Two

Jake was interviewed again at the end of his second year of teaching. He felt that his second year was easier, but he wished he had taken better notes and used the computer more during his first year.

He was very surprised that in his second year the students did not seem as motivated as they had been the first year. He learned that he had to be very selective for his third year. He stated, "The ones I decided I would not employ if I was still a retail manager, I didn't let in the program." Another surprise that he encountered during his second year was having to share his office with another person who constantly interrupted his classes. He also ran into some problems with his vocational director because he felt that Jake was spending his coordination time coaching. However, Jake attributed an increased enrollment in his marketing program to the visibility he obtained from coaching. Jake had developed good relationships with other teachers, guidance counselors, and the administration. He had also established good relationships with the state department of education and teacher education staffs. His relationship with the secretary had improved. But Jake's relationship with the vocational director seemed to have gotten worse. The vocational director was upset with him when he chose not to sponsor a fashion show his second year because his students were failing to fulfill their roles in the show.

Jake found grading to be easier the second year, but still found it to be a very stressful task. He also didn't like handling the money for fund raisers.

The Future

After two years of teaching, Jake felt even more certain that he was doing what he was meant to do. In his third year he planned to be more focused on tasks. He planned to have more class participation, but with more discipline.

Jake was looking forward to his third year of teaching. He had many of his lesson plans on the computer. He had been to more workshops. He felt he would have a better selection of students, including more males. And more people in the community knew

him. Jake was anticipating enough program growth to request a second teacher sometime in the near future.

When asked at what point he would no longer feel like he is a beginning teacher, he stated, "I'm still a beginner, and I probably will be for another two, three years." He thought that once he had completed his fifth year that maybe he would no longer be a beginner.

Other career opportunities were confronting Jake. He had been recommended by the principal to be the athletic director when the current athletic director retires at the end of next year. Also, a teaching position had opened up closer to his home, and his wife was encouraging him to apply for the position. In addition, he had an opportunity to apply for a graduate assistantship coaching baseball.

When asked what advice he would give a beginning teacher, he said,

> Get some experience if you are going to teach marketing. Be prepared as much as possible. Don't be afraid to make mistakes. Get to know your students and have a good time. Make it fun. Have a good time. Be firm, but fair. Don't let them get the best of you. Don't be afraid to learn from them. But, you've got to stick to your guns. I mean you have to do it and control it.

He emphasized, "Have a good time."

The Case of June Parker

Personal Background

June Parker did not originally intend to teach school when she entered college. As many freshman students, June was unsure of what she wanted to do with her life. During her freshman year, June wandered around trying to find something she liked. Finally, June chose marketing education as her major. June really enjoyed her student teaching experience. As a matter of fact, it was this positive experience that ultimately made June decide to become a teacher.

When June's personality was evaluated through the Meyers-Briggs personality instrument, she tested as an ISFJ (Introverted, Sensing, Feeling, Judging). The interpretation of an ISFJ is one who is quiet, friendly, responsible, conscientious, loyal,

considerate, and concerned with how other people feel. These individuals work devotedly to meet their obligations and lend stability to any project or group. Their interests are usually not technical (Myers-Briggs Type Indicator). An initial interview with June revealed many of these personality characteristics. Prolonged exposure to June during her first year of teaching further confirmed the findings of the Myers-Briggs instrument.

June was twenty-three years old when this study began. She was an African American woman living alone. She began her career as a marketing teacher in July, 1988. June taught in a rural southern high school and lived approximately thirty miles from her work. She spent about one and a half hours traveling to and from school each day. June consciously chose to live outside the community where her school was located.

Characteristics of the Program

ne was the only teacher in the marketing program at her high school. June's opinion of the marketing program during her first year of teaching was positive. She taught four courses— e section of fundamentals of marketing, two sections of marketing, and one section of advanced marketing. There were forty-one students enrolled in the program. Thirty-nine of these students were members of DECA, the program's cocurricular organization.

The students worked in a variety of marketing related businesses: fast food establishments; craft shops; greenhouses; and grocery, hardware, auto parts, drug, and general merchandising stores. Members of the business community expressed confidence in the marketing program and its students. Local business personnel were extremely supportive of the program and felt that it provided them with a pool of qualified employees. "They think the program is great and they think it helps the students a lot, and they also think that marketing students are better workers than most students."

June's program had a limited but adequate number of resources. She was required to work within an allotted budget that was strictly monitored by school administrators. Copies, teaching supplies, and other teaching resources were deducted from this budget.

The marketing program was located in a comprehensive high school that was established in 1955. Marketing courses were taught in a vocational building that was separate from the main school building. The school was one of two high schools in the area and enrolled approximately eight hundred thirty-eight students in grades nine to

twelve. It was located in a rural county that offered varying degrees of occupational opportunities. Fifty-six percent of the students would leave the area after graduating from high school.

Orientation and Preparation

June had been on contract with her school system for two months prior to the start of classes. Twelve of these days were specifically set aside for school year planning and classroom preparation. She was provided with three days of inservice training. One additional day of inservice training was provided for new teachers who, like June, were going to have homeroom responsibilities.

June expected to teach only three classes; however, on the day she signed her contract she was told she would be teaching four. June felt that this teaching load was too heavy and that it did not leave her sufficient time to perform her classroom duties and on-the-job coordination responsibilities effectively.

June was told to keep a positive attitude and to inform her principal of everything she did. She was provided with special instructions on how to prepare for homeroom, how to motivate students in the classroom, how to improve her teaching, and a handbook that stated the school's rules and regulations.

June was not assigned a mentor teacher. However, her school system did foster a peer coaching program that teamed up personnel for the purpose of improving educational effectiveness. June's coaching partner was a guidance counselor who had not been in the classroom for several years. Their differing educational occupations and existing situations caused this otherwise friendly relationship to be ineffective in accomplishing its intended purpose. Neither she nor the guidance counselor were able to provide or receive any constructive advice and direction from the coaching experience. Neither one fully understood the other's position, responsibilities, and problems.

School Responsibilities

During her first year, June spent an average of seventy hours a week performing her responsibilities as a teacher. She arrived at school each day at 8:00 a.m. even though she was not required to be there until 8:30. She was permitted to leave school at 3:30 p.m. The students began their day at 8:50 a.m. and left at 3:00 p.m..

June taught four marketing classes per day, had three separate preparations, coordinated on-the-job training for two periods, and acted as a homeroom teacher. June also had a home-bound student whom she visited and worked with for two to three hours after school on Mondays, Wednesdays, and Thursdays. On these days, June did not arrive home until 6:30 or 7:00 p.m. She did not have any set planning period. Her lunch break had to be squeezed into the time she had allotted for on-the-job coordination. June was assigned hall duty and bathroom duty for the entire school year. She was assigned to attend sports events during the school year. June was also the school's DECA advisor. June voluntarily accepted the position of track coach near the middle of her first school year.

June spent the majority of her time at home alone, planning and preparing to teach her classes. When she arrived home in the evenings she cooked something to eat and then relaxed for a brief period. June began doing "homework" around 6:30 or 7:00 p.m. and continued working until around 11:00 or 12:00 p.m. June summarized her weekly routine in an early interview: "So I spend most of my evening doing homework, and I don't do anything on Fridays, nothing on Saturdays and all day Sunday I do work starting from maybe when I get up at ten."

June quickly discovered that teaching was a big responsibility—a responsibility much larger than she had originally thought. "Well, I feel it's [teaching] a lot of responsibility—a great deal. And when I was coming up, I was thinking, you've got to be a teacher. It seems like an easy job; all you need is an answer key. But, I see there's more to it than just an answer key." When given a stress test (Pelsma et al., 1989) during her first year of teaching June scored a . Anything below 120 on the stress scale used is considered to be high stress.

June was on a twelve-month contract. Therefore, she was required to work the entire summer and on school snow days. During the summer months, June continued her on-the-job coordination responsibilities, completed a community survey, and conducted some advance planning for the next school year.

Relationships

June had a good relationship with her students during her first year of teaching. They provided her with a lot of support and praise. They talked to her a great deal and

seemed to enjoy her as a teacher. June was proud of the relationship she had with her students:

> I think the best thing is my relationship . . . with my students. They all open up to me—I think sometimes too much. But, I think the relationship that I have with each and every one of them is the best thing. You know, it's what I can feel good about at this point.

June quickly developed healthy relationships with the other faculty members in the school. She interacted with them on a regular basis during the school day and went out with a few of them socially after school hours.

June's relationships with the various business people in the community seemed to be positive. Her training-station employers were willing and ready to help her whenever she needed their assistance. Business personnel not involved with the marketing education program were a little more reluctant.

June received a great deal of support from her family and boyfriend. They provided her with encouragement and positive reinforcement, elements desperately needed by a beginning teacher.

Negative Influences

This was June's first full-time job after graduating from college. At the beginning of her first school year she felt a little nervous and insecure about teaching marketing. Her major concerns centered around keeping students interested, providing students with creative lessons and experiences, and effectively handling student disciplinary problems. As the school year progressed, June became more confident in her abilities as a teacher. She became more and more familiar with her subject matter, and her confidence in herself and her teaching ability grew. "When I first started teaching, I almost studied my lesson plan, but now, I'm more familiar with it, and I can just read through it, and then I can still present it to the class with no problems."

June's biggest and most pronounced problem throughout her first year of teaching was the availability of time and time management. Time management problems are considered to be internal. These problems specifically relate to a teacher's ability to prioritize daily activities and to effectively utilize the time they have available. As June

stated, "I don't have enough time. There are not enough hours in the day. I think I could spend more time planning creative lessons."

June's time management problems affected a variety of her activities and responsibilities as a first year teacher: general class preparation and organization, completing paperwork, preparing lesson plans, grading papers, writing exams, performing on-the-job coordination, attending faculty meetings, advising DECA, coaching track, and teaching her home bound student. June believed that her organizational skills were lacking and that she did not use her time very wisely.

June experienced a variety of problems related to students. These problems tended to center around general classroom behavior and consisted of talking in class, not completing assignments, complaining, low level of attention, and lack of student motivation and cooperation.

June also experienced some problems with her co-op students. They were constantly wanting to change jobs. This problem really bothered June. She felt that this type of behavior showed a lack of responsibility on the part of the student. "They want to change job to job to job. And they can't work like that. And so, I'm trying to maybe work on them to learn responsibility and to hold down a job—not leave if something goes wrong."

June's home-bound student presented her with some unique problems. June would go to conduct a teaching session and the student would not be at home. The student did not complete her assignments nor did she study for scheduled tests. June made the following statement in a personal interview: "I will leave an assignment, and she won't do it. She doesn't want to do the assignments I leave her." This situation frustrated June a great deal. It was one that she continually mentioned and discussed in her daily logs and school interviews.

Problems related to the system were also apparent during June's first year of teaching. Obtaining advance approval from her principal to conduct various DECA related activities was a problem for June. Her principal was somewhat wary of approving activities too far in the future. Therefore, June found herself wondering and waiting for this necessary approval. June's other system related problems focused on paperwork, use

of the marketing program's equipment by other school personnel, school day schedule changes, and the performance of homeroom responsibilities.

Other problems identified through June's daily logs and personal interviews were minimal and seemed to be related in some way to many of the problems previously discussed. Overall, June believed that the problems she experienced during her first year of teaching were typical for beginning teachers. When evaluating her first year of teaching June stated, "I didn't have the discipline problems that I was thinking I was going to have, and I did have the time management problems that I knew I was going to have, but that was expected."

Assistance Received

Many people provided June with positive assistance during her first year of teaching: fellow faculty members, school administrators, students, and business personnel. June's fellow faculty members were always willing to provide her with assistance. They made themselves available to her and helped her learn how to complete paperwork, set up her grade book, conduct classroom discipline, and prepare for classroom evaluations. She never seemed to have any problems getting other faculty members to provide her with the assistance she needed. Regarding the assistance she received from other faculty members, June said, "Most of the teachers will come to me, and ask me how are things going, and if I need any help to come to them. But right now, most of them come to me, and I don't need to go to them."

June thinks that her biggest help came from an English teacher in her school. She respected this teacher's abilities and unofficially made this person her mentor. Whenever she had a problem or needed some advice she turned to this individual for assistance. This individual was a veteran teacher and seemed to relate well to the situations that June was experiencing.

June's students continually provided her with praise and assistance. As a matter of fact, June felt that the support she got from her students was by far the most rewarding. When asked in an interview what helped her the most in her job, June stated, "I think maybe the support I have from my students. From what I'm doing now, I receive a lot of praise from them. They say, you're not like our teacher we had last year—she did this, that and the other, and you're much different."

Positive Influences

June experienced a great many positive influences during her first year of teaching. The major source of these events were her students. However, many of these events were related to the satisfaction of simply making it through—successfully completing the day, the week, or a task.

When student related events were identified, June described many incidents that dealt with the relationships she had with her students. These relationships were encouraging to June and provided her with a lot of satisfaction.

Another area of student related positive influence was the successful completion of their assignments. In one of her daily logs June stated, "The best thing that happened to me today was the enjoyment that my fourth period class received from making up their own tests." Many times in her daily logs June expressed a sense of accomplishment and excitement when students completed their assignments as they were instructed. She was encouraged when they performed well on quizzes and tests. June really enjoyed seeing her students succeed.

When June was asked on a daily basis about good things that happened she often made comments that indicated she was simply happy and relieved (and sometimes surprised) that she had made it through. Numerous quotes could be pulled from June's daily logs to illustrate the satisfaction she often felt when a day, week, or task had been successfully completed. "I completed all of my coordination visits for this six-weeks period."

End of the First Year

At the beginning of the school year, June expected to remain in teaching or the educational field for three to five years. By the end of the school year June seemed even more content with her career choice. She had experienced a lot of changes in her life, learned a great deal, and had decided to make education her lifelong career. "I'm really proud of being a teacher because if someone asks me what do I do, I always say I'm a teacher." There were times, however, during that first year when June found herself ready to throw in the towel and give up teaching all together. And, as June put it, "Sometimes I've had my doubts like this is my last year but, you know, I'm going to stick with it." At

the end of her first year of teaching June had decided that she would like to eventually acquire her master's degree and move into some form of educational administration.

Year Two

At the beginning of year two, June felt prepared to begin a new year. She intended to be a little more strict in the classroom and a lot more organized. She anticipated her second year of teaching to be more fun than her first and also more difficult. When referring to her approaching second year of teaching June said, "Well, I think it's going to be harder but I think it's going to be fun as well. And, I think, that by the time I finish next year I will want to continue with teaching."

Unfortunately June's second year of teaching was not just harder—it was horrible. Along with her regular duties as a marketing teacher, June had taken on a part-time job in a local business, continued to coach track, and accepted the responsibility of two home-bound students. These added responsibilities put a great deal of pressure on June.

June was extremely frustrated, disappointed, and discouraged with teaching by the time her second year came to a close. June's job satisfaction level (Brayfield & Roth, 1951) had dropped to thirty-five at the end of her second year—a drastic change from a score of seventy-four out of a possible eighty-eight at the end of her first year.

The positive relationship she had experienced with her students had changed. June no longer received encouragement from them. She had become angry at their class behavior and performance. In relation to her students, June made the following two comments: "I have sent students out and written them up more this year than I did the entire time my first year. . . . I had maybe one or two [students] who were good [and] one or two who really didn't make a difference because, you know, I just almost forgot they were there."

Organization and time management remained a problem for June throughout her second year of teaching. However, much of this may be attributable to the work load she was trying to carry.

The Future

By the end of her second year, June was ready to get out of teaching. Her future goals, as stated at the end of her first year, had changed considerably. She was now only planning to remain in teaching for one more year. When asked how she felt about teaching after her second year, June said, "I don't know. After—well, I really don't want to teach anymore, and I think it's not for me. So basically, I think it's the students. And, I would rather do something else." Her attitude toward her chosen career had made a drastic and abrupt change.

CASE STUDIES OF THREE BEGINNING AGRICULTURAL TEACHERS

Three first year agriculture teachers were studied for this part of the research. In order to provide a different perspective from that of the two marketing teachers discussed previously, a chronological case study approach was used. The detailed discussion of the findings are available on request from the researchers or on interlibrary loan from the Newman Library at Virginia Polytechnic Institute and State University. They comprise over fifty pages of discussion and are omitted from this report because of space limitations. The following paragraphs are taken from the thesis of B. Allen Talbert (1990) who served as a research assistant on this project.

Descriptions

Tom

Tom is a single, white male in his early twenties. He is a personable young man, easy-going and friendly. Tom graduated from a major southern university with a Bachelor of Science in Agricultural Education. Tom rents a cottage on a farm located about ten minutes from where he teaches at Thomas Jefferson High School. His hometown is about a two-hour drive from the Thomas Jefferson community.

Tom teaches agricultural machinery service at Thomas Jefferson. His teaching load includes two introductory agriculture classes, two agricultural machinery classes, one planning period, and one two-hour advanced agricultural machinery class. Tom teaches in a three teacher department with classes offered in agricultural machinery, agricultural

production, and horticulture. He was not given specific duties related to Future Farmers of America (FFA) during his first year; however, he was assigned several judging teams to coach as well as other FFA duties for the second year. Tom's teaching contract is for twelve months.

Thomas Jefferson is the only high school in a small rural county. The school consists of three buildings. The main building is about fifty years old, the vocational building is approximately twenty-five years old, and a third building containing Tom's laboratory is the same age as the main building.

Susan

Susan is a white female in her late twenties. She is married and has no children. Her home is approximately twelve minutes from the two schools in which she taught in 1988-89 and about five minutes from her current job.

Susan taught agriculture for one year after receiving a Bachelor of Science in Agricultural Education from a major southern university. She taught one agriculture class and two technology education classes at Red Bridge Junior High School. She then traveled ten miles to Freemont Junior High School to teach the same schedule. Susan was the only agriculture teacher in either school. Susan did not return for a second year to teach in that school system. She worked at a federal correctional institution as a basic education teacher for the 1989-90 school year.

Both Red Bridge and Freemont Junior High Schools are located in Freemont County. Each of the two schools is a former high school, however their appearances are different. Freemont is located in the county seat, and its students come from middle to upper-middle class families. Red Bridge is in a rural area of the county. Red Bridge also has a greenhouse that is available for Susan's use in her agriculture classes.

Mary

Mary is a white female in her late twenties. She is married and has no children. Mary is very friendly and speaks with a strong southern accent. Mary entered the teaching profession through the alternative certification route. She holds a Bachelor of Science degree in Agriculture with an emphasis on animal sciences. For the 1988-89 school year,

her home was approximately a twenty-five minute drive from Anchor City High School. In October of the 1989-90 school year, she moved closer to the school.

Mary teaches in a three teacher department with classes offered in agricultural machinery, agricultural production, and horticulture. For 1988-89, she taught five agricultural production and introductory agriculture classes and had one period for planning. During the 1989-90 school year she taught four agricultural production classes, and she had one planning period and one period for coordination of her cooperative education students.

Anchor City High School is a little over ten years old. The school was designed using the pod concept with each instructional area in a separate building. The vocational department is in a pod in the rear of the school building. Mary has her own classroom which also serves as her office. The agriculture department has a school farm that consists mainly of hay fields. For the 1988-89 school year the department had a barn and an equipment storage shed, however, both were torn down in 1990 to make room for a new football field and parking lot.

Assistance Needs

The early assistance needs of the three agriculture teachers in this study were very different. Susan had problems with classroom management and student discipline during the first month of school. Mary, on the other hand, needed assistance on instructional management and teaching techniques earlier than she received it. Finally, Tom needed assistance in time management. He had an especially difficult time grading students' assignments and completing report cards at the end of a grading period.

All three of these beginning agriculture teachers needed assistance early in the school year. The results of this study suggest that this assistance should be provided no later than the third or fourth week of school. Also, beginning teachers may need specific assistance in different problem areas, such as student management, lesson planning, or stress management. Even when the three teachers expressed concern about the same area, their specific problems were quite different.

When assistance programs are developed for beginning teachers, they should be available to the teacher during the first weeks of school rather than later. This would allow the teacher to get settled into teaching, but would intervene before serious problems develop. These interventions could be offered in a menu style format from which the teachers would receive the specific help they need at a given point in time.

Student Discipline

All three agriculture teachers experienced problems with student discipline. The most common complaint was with the students talking in class or with general misbehavior. Mary received a less than satisfactory mark in her annual evaluation on the management of student behavior because of these and similar problems. Susan, on the other hand, experienced more severe discipline problems with students stealing tools and house plants from the laboratory.

It would seem that managing student behavior is a difficult task and a major source of stress for beginning teachers. These beginning teachers did not have the experience to know when or how strictly to discipline students. It was also clear that these new teachers were not consistent in their discipline, so the students were continually trying their limits. The results of this study imply that beginning agriculture teachers need assistance in classroom management.

One way to provide the assistance is for teacher education programs to include more instruction in classroom management. This may possibly help to better prepare teachers to control discipline problems. Also, principals need to make sure that new teachers understand school rules and policies regarding student discipline. Finally, mentors, buddy teachers, and coworkers need to provide the new teacher with helpful suggestions for managing problem students.

Instructional Management

Neither TEC (Teacher Education Certification) teacher, Susan nor Tom, expressed much concern with lesson planning, however the NTEC (Nonteacher Education Certification) teacher, Mary, was extremely concerned with lesson plans. This concern continued throughout the school year, even though Mary attended several education

courses. All three teachers were at one time or another concerned with making curriculum decisions, such as what unit to teach next, how much time to devote to a unit, and what resources to use.

For the two teacher education trained teachers in this study, making and using lessons plans was not difficult. Apparently their teacher education programs adequately prepared them to make and use lesson plans. However, the alternative certification teacher needed early and intensive instruction in making and using lesson plans before she started teaching. Also, all three beginning agriculture teachers needed more assistance in planning the curriculum than they had received.

Teacher educators and state staff are usually the most knowledgeable about curriculum matters in their content area. They provide a valuable service to new teachers through workshops, classes, and visits, but visits and assistance need to occur early in the school year possibly even in the summer. School administrators could prepare an inservice to assist NTEC teachers in making and using lesson plans. They should also make sure that current curriculum guides are available when the new teacher arrives on the job.

Unique Requirements

All three of these teachers had job requirements that were unique to agriculture and/or vocational teachers. The FFA was one of the unique job requirements. Tom, Susan, and Mary spent many hours outside of class time coaching, transporting, and otherwise working with students. This included time spent on weekends and time away from home at contests and other events.

Other requirements unique to these teachers included preparing for several different classes, purchasing laboratory supplies, managing the laboratory, completing state required reports, and designing the curriculum without the benefit of a textbook. Tom commented that he had more class preparations than another first-year teacher in chemistry. Each of these teachers, especially Tom, had to learn the procedures for ordering laboratory supplies. Each of the teachers was responsible for managing a laboratory. Susan had problems with storing lumber, Mary with managing the land laboratory, and Tom with the agricultural mechanics laboratory. Finally, these three agriculture teachers had to use many different sources to write their curriculum since there was no agriculture textbook.

Since the job of agriculture teachers has many unique requirements, it is clear that mentor/buddy/peer teachers who teach in the same or a similar area should be assigned to guide first-year teachers. These more experienced teachers could assist the new teachers in handling the situations unique to agricultural education. Administrators should alert beginning agriculture teachers to the proper procedures to follow when ordering supplies, planning field trips, and other such activities. Finally, state department of education personnel should consider conducting workshops to assist beginning agriculture teachers in completing required state reports.

Unique Pitfalls

The daily lives of these three teachers were complicated by activities that teachers from other subject matter areas may not experience. Two of Tom's students injured themselves in the agriculture laboratory. The responsibility for students' safety is a concern that academic teachers probably do not face to this degree. These agriculture teachers also had liability concerns when they transported students to various activities.

It would seem that agriculture teachers, as well as other laboratory instructors, have a greater responsibility for students' safety than do most other teachers. It would also seem that these teachers have unique liability concerns that they may not completely understand. Several things can be recommended that may assist the first-year teacher in these areas. Teacher preparation programs should include instruction on teacher liability. A first-aid course should be required for agricultural education graduates. First-year teachers who did not take a first-aid course in college should be encouraged to participate in a local Red Cross first-aid class. Professional organizations such as the National Education Association (NEA), American Vocational Association (AVA), and the National Vocational Agriculture Teachers Association (NVATA) are sources of information on teacher liability and liability insurance. Finally, administrators should encourage safe working habits in laboratories and should provide for safe working conditions.

Teacher Isolation

These three agriculture teachers were physically isolated from their coworkers and the rest of the school. Tom's laboratory was in a separate building, Mary's classroom was

in a separate pod, and Susan's laboratory was at one end of the building. Each teacher had minimal contact with other teachers and, except for Tom, had minimal contact with other agriculture teachers. Mary even had a mentor, but rarely spoke of any contact with her.

The induction process is difficult enough without the added stress of isolation. First-year teachers should be encouraged to spend time with their coworkers. This could be accomplished through holding morning or afternoon socials, encouraging first-year teachers to eat lunch with other teachers, holding picnics or other functions beginning the week before school starts and continuing throughout the year, or by other appropriate activities.

Administrative Assistance

The types of assistance given by principals and other administrators tended to be in matters of student discipline and administrative paperwork. These three teachers rarely received help on curriculum or matters of pedagogy. Tom's department chairman was the exception in that he helped Tom on curriculum related matters. Neither Susan nor Mary were evaluated until late in the school year, even though Susan had asked for help earlier.

Thus, it appears that the principals tended to be concerned with maintaining the smooth operation of the school. They were not as concerned with the individual classes as long as student behavior was appropriate. If that is the philosophy, then agriculture teachers tend to have a great amount of freedom in making classroom management decisions.

rincipals, other administrators, and mentors should give beginning agriculture teachers early and frequent feedback on their teaching performance. New teachers should be evaluated early in the year to identify problems before they become too serious and to allow them time to correct the deficiencies.

Students

As a group, students received the most comments from the teachers for both negative and positive events. Also, all three teachers made references to gauging the

success of a class period on whether certain students were present or absent. Many times the teachers made comments such as, "The students were well-behaved. It was a good class."

Students are the main group that beginning agriculture teachers come in contact with on a day-to-day basis. Because of this, beginning teachers tend to gauge their worth as teachers based on the results of these contacts.

For situations involving students and especially student discipline, beginning teachers should have another teacher who they can go to for assistance in handling specific situations. This person may or may not be an assigned mentor, but definitely should not be an evaluator of the beginner.

More positive student interactions should be encouraged. The beginning teachers themselves could help by planning classroom activities that allow more students to succeed. The use of out of school agricultural projects is another way to encourage positive teacher/student interactions. On the administrative level, principals could promote classroom excellence by recognizing superior students through special awards, bulletin boards, or some other honor.

FFA activities were many times the one bright spot in an otherwise disastrous week for these teachers. The teachers also commented that the FFA and the students made them feel proud to be advisors. The teachers made numerous comments about enjoying the out of class interaction with the students through FFA activities.

Because of these positive results, beginning agriculture teachers should be given some FFA responsibilities during their first year. Another recommendation is that a videotape or other type of inservice on the FFA should be available for agriculture teachers who did not have an FFA background.

Time Management

First-year teachers spend an enormous amount of time grading papers, planning for instruction, and completing other paperwork. All three teachers in this study commented about spending late nights and weekends preparing for classes. In addition, these three

teachers devoted many hours to coaching judging teams, taking students to conferences, and preparing for other FFA activities.

Because of their lack of experience, beginning teachers probably spend more hours in planning and grading than do experienced teachers. Administrative paperwork is a large contributor to the beginning teachers' lack of time and time related stress. Even though the teachers enjoy the FFA, events such as FFA fund raisers, field trips, and judging contests seem to be a large source of stress and extra work for the beginning teacher.

Beginning agriculture teachers need to know that a teaching job extends beyond forty hours per week. Prospective teachers should also be warned that teaching requires work at night and on weekends. A possible source of assistance would be to offer a minicourse on time management to prospective teachers or to beginning teachers shortly after the start of the school year. Also, beginning teachers need to be prepared for doing the extra tasks and assignments that are a part of the teaching job.

Teaching Techniques

All three teachers relied almost exclusively on lecturing early in the school year, but Mary continued to use lecturing as her main technique throughout the year. This was in spite of her observation of how well the students participated and learned when she used other teaching techniques. Both Tom and Susan incorporated more hands-on activities into their lessons as the year progressed. Mary did, however, use the school farm as a instructional activity during the latter part of the year.

It may be that beginning teachers use lecturing almost exclusively until they feel comfortable enough to experiment with other methods after they have established their authority in the classroom. However, most teachers eventually incorporate different techniques into their lessons to improve the flow of the class and to hopefully improve student learning.

College professors serve as role models for future teachers, therefore they should be encouraged to model teaching techniques other than lecturing in their classes. Then, possibly, beginning teachers may feel more comfortable in doing something other than lecturing to their students. If principals, mentors, and co-workers encourage the use of

various teaching techniques, then first-year teachers may begin to use more techniques. Finally, NTEC teachers should receive teaching methods workshops during the summer before school starts. If this is not possible, then NTEC teachers should be provided with the means to develop their teaching skills early during the school year.

Student Counseling

All three teachers had to counsel students at some point during the school year. A student at Tom's school committed suicide, and even though most of his students did not know the person very well, it affected all of them deeply. A student at Mary's school was killed by a drunk driver, and it affected her students for over a week. Susan suffered the personal tragedy of a miscarriage, and her students were affected by it in much the same way as Tom's and Mary's students experienced their losses.

Susan also had to counsel a student who was having family problems. In a similar fashion, Tom and Mary had students come to them with personal problems. These students confided in their teachers even though the teachers had no training in counseling.

We might conclude from this that when tragedies occur, students are deeply affected by them. Students may also view teachers as people who are abie to give them support in times of tragedies and personal conflicts. Clearly, teachers are important to students as an initial source of counseling.

Teachers are not trained counselors, yet students come to them with problems. Thus, beginning teachers should receive instruction on how to help students. They also need to know how to recognize students who need to be referred to a trained counselor. This may best be accomplished at a faculty meeting or inservice early in the school year.

Administrative Changes

Both Tom and Mary had different principals for their second year. In each situation, the new principal had different priorities and a different philosophy for guiding the school. Susan not only changed principals, but changed administrative structures entirely.

Administrative changes can greatly affect the daily lives of teachers. Duty assignments, chain of command, and school atmosphere are determined to a large extent by the philosophy of the principal. If the beginning teacher does not adjust to these changes, then the teacher may not have a successful year.

Teacher Health Concerns

Both Susan and Mary had problems with colds, flu, and other illness throughout the school year. Susan, in fact, used up all of her sick leave a few months before the end of the school year. Tom was more fortunate; he only had to use sick leave for one of two days. However, all three teachers commented on how often students were absent and, also, how often students were sick but still in school. At one point in the year, Mary had so many students absent that she was forced to change her lesson plans.

Exercise, well balanced meals, and adequate amounts of sleep are essential if a new teacher is to remain healthy during the school year. Also student illness can adversely affect classroom instruction even when the students attend school.

Beginning agriculture teachers should be alerted to the fact that their health is important. Teacher educators may consider including teacher health concerns in an undergraduate seminar. New teachers should also receive information on preventing illness and on coping with disrupted classes due to illness. This information would be best distributed in a booklet at the start of the school year. Stress management and other health related issues could be topics of a school or district inservice for both new and experienced teachers.

NOMINAL GROUP TECHNIQUE RESULTS FOR TEACHER EDUCATION AND NONTEACHER EDUCATION BACKGROUND TEACHERS

This section focuses on data gathered from the nominal group technique (NGT) sessions which were a part of the larger study to research the induction process of beginning vocational teachers. The overall study involved using a variety of research techniques which can be found in the section titled "Methodology."

Because there were so many NGT sessions and for each session a separate table of ranked responses was generated, it is not realistic to present all of the tables in this section. The most germane tables are included in this section. Sixteen tables of compiled information from the NGT sessions are presented in Appendix A.

There were two certification patterns for teachers involved in this study. One category consisted of the teachers who were certified through criteria other than a degree program in education or a degree program that included a component for teacher certification. This group is referred to in the methodology section as the nonteacher education certification (NTEC) teachers. The other category consisted of the teachers who were certified as a result of a degree program in teacher education or a program that included a component for teacher certification (TEC). The following are the research questions from the first section which are addressed in this section:

1. What is the nature, dynamics, and scope of the induction process for beginning vocational teachers?

2. Are there differences in the induction process among beginning vocational teachers entering teaching from traditional teacher education programs (TEC) and those entering through alternative certification and vocational certification routes (NTEC)?

3. What are the induction assistance needs of beginning vocational teachers?

Data Collection

The primary group data collection process for this part of the study was through the NGT research method. Eight NTEC and eight TEC teacher NGT sessions were held between September, 1988 and June, 1990. Seven teachers were initially selected for each group. The number of NTEC and TEC teachers who actually participated in each group is shown in Figures 5 and 6.

Demographics of the Vocational Teachers

The NTEC group of teachers tended to be in their midthirties, most were married, and they had an average of one and one half children, ranging from none to four per family (see Table 13). There were eighteen females and fifteen males in the NTEC groups. They had extensive work experience ranging from five to thirty-five years with most having over ten years of work experience. Twenty-one of the thirty-three NTEC vocational teachers had a bachelor's degree or higher. Over the course of two years, in the groups we conducted follow-up sessions with, we lost two participants in Group A and one in group G (see Figure 5).

As Table 14 shows, the teachers in the TEC groups were in their mid to late twenties, just over half were married, and they had an average of less than one child, ranging from none to two. There were eighteen males and twelve females in the groups. They had work experience ranging from one to twenty-two years with most having less than two years experience. All of the TEC teachers had bachelor's degrees and six had master's degrees. In the groups we conducted follow-up sessions with, we lost two participants over the course of two years in Group B and one in group H (see Figure 6).

Problems

Vocational Teachers Beginning Year One

When the focus group data for the beginning first year NTEC vocational teachers was analyzed, we found that the most pressing problems among the groups were the lack of orientation and student behavior. Other problems were difficulty with developing lesson plans for instructing several areas at one time, lack of time to learn the curriculum, and just learning to manage their time in general. To a lesser degree, but still ranked in the top ten

Figure 5

Group Data Collection – NTEC

Fall 1988	Spring 1989	Fall 1989	Spring 1990
Group A BFY N=7			
Group C BTY N=6			
	Group A EFY N=7		
	Group E EFY N=10		
		Group G BFY N=6	
		Group I BFY N=4	
			Group A ESY N=5
			Group G EFY N=5

Note: B=Beginning, E=End, F=First, S=Second, T=Third, Y=Year

Figure 6

Group Data Collection – TEC

Fall 1988	Spring 1989	Fall 1989	Spring 1990
Group B BFY N=5			
Group D BTY N=6			
	Group B EFY N=4		
	Group F EFY N=3		
		Group H BFY N=7	
		Group J BFY N=8	
			Group B ESY N=3
			Group H EFY N=6

Note: B=Beginning, E=End, F=First, S=Second, T=Third, Y=Year

Table 13

Demographics of Nonteacher Education Vocational Teachers NTEC

	Group Total	Age	Percent Married	Average # Children	Gender Females	Gender Males
Group A	7	35-39	85.7%	.87	3	4
Group C	6	35-39	66.6	1.83	4	2
Group E	10	35-39	90.0	1.60	6	4
Group G	6	35-39	66.6	1.83	3	3
Group I	4	34-35	100.0	1.50	2	2
	33 Total		81.8 Mean	1.52 Mean	18 Total	15 Total

Table 14

Demographics of Teacher Education Vocational Teachers
TEC

	Group Total	Age	Percent Married	Average # Children	Gender Females	Gender Males
Group B	5	20-24	20.0%	0.00	3	2
Group D	7	25-29	71.4	0.71	4	3
Group F	3	25-29	66.6	0.33	1	2
Group H	7	25-29	42.8	0.28	4	3
Group J	8	25-29	75.0	0.37	6	2
	30 Total		55.2 Mean	.34 Mean	18 Total	12 Total

for the groups were students lacking the basics, class size, no secretarial support, and lack of curriculum (see Appendix A, Table A-1).

The beginning TEC teacher groups prioritized their major problems as time allocation, student motivation, student discipline, and getting past the previous teacher's permissive behavior. They identified other problems as having to teach in a field for which they were not prepared, and lack of money for equipment, textbooks, and materials. They also had problems keeping ahead with their lessons. To a lesser degree, they were concerned with class size, self-confidence, extra duties, spending more time in classroom management than teaching, and competing with other student organizations when it came to fund raisers (see Appendix A, Table A-2).

All the groups of teachers beginning their first year (both NTEC and TEC) identified student motivation and behavior as major problems. The NTEC were more concerned with an orientation to the school and school policies. They had difficulty in an unfamiliar setting. The TEC teachers had completed their student teaching, therefore, school surroundings were not as unfamiliar to them. The TEC teachers identified time as a problem and keeping up with their lessons, but the NTEC teachers didn't have time to learn the curriculum much less develop it, and had problems allocating instructional time. A lack of secretarial support or clerical help was among the problems cited regularly by NTEC teachers. On the other hand TEC teachers seldom mentioned this as a problem. Perhaps their student teaching experience had already conditioned them not to expect such support.

Vocational Teachers Ending Year One

At the end of the first year, both the NTEC and the TEC teachers rated their most severe problems the same: students, time, and the composition of class enrollments. Once we got beyond those similarities, some important differences between the two groups emerged.

At the end of the first year, the NTEC groups felt that lesson planning and delivery had been a problem for them during the year. They still felt that an explanation of their duties or an appropriate orientation would have been valuable. They lacked self-confidence because of their lack of educational preparation. Other problems that faced them duringtheir first year were meshing school and home life, handling students' low self-concepts, and the lack of equipment and supplies (see Appendix A, Table A-3).

The TEC teachers felt they had little support from their administration regarding student discipline during the first year. Other problems were that they felt they had to think about work at home too much; there was little money for Vocational Student Organizations (VSOs); they had to teach classes for which they had no background; and equipment maintenance (see Appendix A, Table A-4). Even though major problems for both NTEC and TECs were similar, there were also some differences in the problems that the groups ranked in their top ten (see Appendix A, Tables A-3 and A-4).

At the conclusion of the first year of teaching, the events or situations that were more problematic to the NTEC teachers than to the TEC teachers were still lesson planning and delivery, no explanation of duties, lack of curriculum, lack of educational background, and lack of equipment and supplies. The TEC teachers felt they had more problems with lack of support of the administration in regard to discipline, problems with the state departments of education, VSOs (Vocational Student Organizations), teaching-out-of-field, and equipment maintenance.

Vocational Teachers Ending Year Two

At this point we asked the teachers to reflect back over the experiences of their first two years. As the NTEC teachers looked back over their first two years of teaching, they thought their major problems had been lack of student motivation and student behavior, having to learn their jobs by making mistakes, and lack of program organization, materials, facilities, and equipment. As in the beginning, they still pointed out that students were not prepared in the basics. They were feeling frustration and noted that some of the teachers they worked with just "don't care."

Other problems NTEC teachers named from their first two years were the following:

- students entering their classes after the beginning of the school year
- student discipline
- differences in student and teacher expectations
- time conflicts for duties and professional development
- state officials' low priority for education
- failing students
- organization
- being compared to the former teacher.

They still identified making and following lesson plans as a problem during those first two year (see Appendix A, Table A-5).

After two years, the TEC teachers said that time management and feeling overwhelmed constantly had been their most important problems. They too had problems with student behavior and with getting what they needed to implement their programs. Instead of feeling a lack of confidence in their educational background as the NTEC teachers had, they indicated a lack of confidence in their subject matter. They also mentioned a lack of understanding of school procedures and policies and the boundaries of authority. Other problems included the following:

- organization of materials/shop
- getting forms in on time
- change in administration
- teaching subjects they disliked
- stress
- inadequate facilities
- a dishonest supervisor
- too much paperwork (See Appendix A, Table A-6.)

Teachers as They Begin Their Third Year

Both the TEC and NTEC teachers entering their third year of teaching were concerned with the need for larger labs, updated equipment, and the excessive demands on teachers' time (see Appendix A, Tables A-7 and A-8). The NTEC teachers were also concerned with enrollments, and they took student misbehavior personally (see Appendix A, Table A-7). The TEC teachers were concerned with their lack of communication with state staff and the administration, teaching high and low ability students, and student motivation (see Appendix A, Table A-8).

Assistance Needs

Vocational Teachers Beginning Year One

The teachers who were just beginning their first year of teaching were asked what assistance they would need in the beginning. As we expected, there were both some commonalties and some differences between NTEC and TEC teachers. All beginning

teachers said they could use a mentor in the same or related subject area. They identified that a support group, a new teachers' network, round table discussions with other new teachers, and a chance to brainstorm with other faculty would be helpful. They said they needed a thorough orientation of the procedures, policies, and a tour of the school (see Appendix A, Tables A-9 and A-10).

The NTEC teachers indicated they needed an orientation to the VSOs. Additional things they felt would have been helpful to them in the beginning would have been a curriculum outline or guide, knowing how to get resources, and to have been provided with adequate teaching materials. They felt that more preparation time before school began in the Fall was necessary, extra duties should be eliminated or reduced as much as possible, and classes should be smaller the first year. In addition, the NTEC teachers thought that new teachers should have an extra planning period. They also thought that they needed instruction on how to communicate with students, monetary incentives for teachers to further their education, secretarial service, lists of resources and vendors, and a list of students prior to the start of classes. They needed instruction on how to handle more than one ability level of students in the same class (see Appendix A, Table A-9).

The TEC teachers thought they could use assistance in learning to develop their organizational skills. They also thought equipment needed to be provided, they would like to have time to observe other teachers, and it would be helpful to have a list of students' names prior to class start-up (see Appendix A, Table A-10).

Vocational Teachers Ending Year One

Both NTEC and TEC teachers placed a high priority on a thorough orientation program. Each thought a handbook with "everything a new teacher needs to know" should be available. They also thought new teachers should be on contract early, and some type of recognition should be given to new teachers who were doing "well" (see Appendix A, Tables A-11 and A-12).

The NTEC teachers thought a "help hot line" for new and beginning teachers would be helpful. Other assistance needs identified by the NTEC teachers were opportunities to observe other teachers' instruction, clerical assistance, a computer, less paperwork the first year, and a clear chain of command (see Appendix A, Table A-11).

The TEC teachers placed a high value on new teachers' workshops on a number of topics. They also thought a program of feedback would be helpful such as a check on lesson plans and grade book, feedback right after observations, and filming and critiquing lessons. In addition, they thought they needed good administrative support, syllabi with time lines, smaller classes, advance notice of extra duties, and an office with a phone (see Appendix A, Table A-12).

Vocational Teachers Ending Year Two

Looking back over their first two years of teaching, the teachers were asked to identify their most important assistance needs. Both NTEC and TEC teachers thought new teachers needed a through orientation program with written guidelines, to be involved in a mentor program, an extensive inservice program with various methods of delivery and materials, opportunities for new teachers to meet and exchange ideas with each other, more administrative support on discipline, more evaluation and feedback, curriculum guides and other materials, more preparation time, and more positive reinforcement from the administration (see Appendix A, Tables A-13 and A-14).

In addition, the NTEC teachers thought that it was important to have more support from their state departments of education and a clear job description. They also needed more adequate facilities and modern training equipment, support from guidance, and clear information on certification (see Appendix A, Table A-13).

The additional assistance that the TEC teachers said they could use were visits from their former college advisors and time set aside to observe other teachers. They also thought that a reduced teaching load for the first year and a better understanding of students would be helpful (see Appendix A, Table A-14).

Vocational Teachers Beginning Year Three

As in the problems section, the teachers who were beginning their third year of teaching were asked what assistance they could use in year three. It seems that the NTEC and TEC teachers' perceived needs were somewhat different. They did agree that they both needed better facilities, equipment, textbooks, and supplies. They also would like for others, such as the school board members and guidance staff, to have a better understanding of their programs. In addition, they would like to have more opportunities

to attend professional development activities, technical updates, and courses (see Appendix A, Tables A-15 and A-16).

The NTEC teachers still wanted clerical help. They also thought that an occasional pat on the back would be helpful. Other assistance they thought they needed were workshops on how to handle stress, convenient graduate classes, an opportunity to interview their students prior to placement, and realistic deadlines on paperwork (see Appendix A, Table A-15).

The TEC teachers thought more parental support would be their top priority. In addition, they would like to be evaluated by someone who understands their program and to have more support from the administration and from the community (see Appendix A, Table A-16).

A NATIONAL SURVEY OF BEGINNING VOCATIONAL TEACHERS IN THE UNITED STATES

The national survey was begun in late Fall 1989 and concluded in June, 1990. A copy of the survey instrument is included in Appendix B. For the rationale behind this survey, the theoretical framework and related literature, and more details on the methodology, see the first three sections of this document. The methodology section does not deal adequately with the instrument development procedures used, so that will be discussed here.

Of the five research questions listed in the first section, the national survey portion of the research addresses the following two:

2. Are there differences in the induction process among beginning vocational teachers entering teaching from traditional teacher education programs and those entering through alternative certification and vocational certification routes?
3. What are the induction assistance needs of beginning vocational teachers?

To address these research questions, the survey included sections dealing with demographics and forms of assistance. A third section of the survey (see Appendix B)

examined significant events, but the analysis of that section has not been completed as of this writing.

Instrument Development Procedures

The literature on induction provides various suggestions for the kinds of induction assistance needed by beginning teachers, but, in general, the research on induction has not looked at vocational teachers. The results from the transcript analysis (see the section titled "Daily Life") indicate that the induction experiences for teachers with teacher education (TEC) and nonteacher education (NTEC) teachers differ rather substantially. The findings in that section also indicate that an important portion of the experiences of beginning vocational teachers appear to be vocational-specific. Those two findings suggest that the induction experiences of beginning vocational teachers may well differ in important ways from those of the general teaching population. Because there was no other research available to indicate the ways in which the induction assistance needs of beginning vocational teachers differ from those of the general population of beginning teachers, the decision was made to compile our own list of assistance needs as perceived by beginning vocational teachers.

Sample For Instrumentation

As was indicated earlier, this study was part of a larger project which also included extensive qualitative research. One component of that research consisted of a series of Nominal Group Technique (NGT) sessions of purposefully selected samples of beginning vocational teachers from across the United States. For more details on the NGT process and the identification of participants, see the section titled "Methodology." The section titled "Nominal Group Technique Results for Teacher Education and Nonteacher Education Background Teachers" and Appendix A provide a detailed examination of the assistance needs which were identified.

Assistance Needs Identification

In NGT research, a prioritized list of items was generated in response to an open ended question. One of the questions asked in the NGT sessions was, "What kinds of assistance would be (or would have been) helpful to you in your first year of teaching?"

Each of the NGT sessions of beginning vocational teachers produced independent prioritized lists of perceived induction assistance needs. The researchers then compared the lists of assistance needs that had been generated in all of the NGT sessions. The needs repeatedly identified as important (holding in mind that the exact wording of any form of assistance always differed between lists) were identified by means of content analysis procedures. The result was a set of distinct, perceived needs identified by the NGT participants and edited and compiled by the researchers.

Instrumentation

The list of perceived needs was incorporated into an instrument along with two scales. The first scale "OCCURRED" (see p. 190) asked the teachers whether they had experienced the particular form of assistance during their first year of teaching. The second scale "IMPACT" asked the teachers to rate the impact of the assistance item if it had occurred, or to estimate the degree of impact it would have had, had it occurred. The OCCURRED scale was in the form Yes/No. The IMPACT scale ranged from 0 = none, 1 = minor, 2 = moderate, 3 = major, to 4 = critical.

The validity of the scale is based on multiple approaches. The qualitative data which led to the list of perceived assistance needs was derived directly from analysis of the NGT results of actual beginning vocational teachers. To provide a triangulation effect, the NGT samples were selected to represent beginning public school vocational teachers from all grade levels, in all kinds of schools, in all service areas, in various regions of the country, and with experience from none to two years of teaching. In addition, the list of needs was balanced against the existing literature on teacher induction to assure that nothing was omitted by the NGT participating teachers.

To provide further validation, the survey instrument was submitted to three separate panels for review. The first was a panel of four teacher educators who regularly work with preservice and beginning vocational teachers. The second was a group of approximately thirty experienced vocational teachers. A few minor editorial revisions resulted from the suggestions of those two review panels. The instrument was then field tested with a group of beginning vocational teachers from one of the states which was not being selected to receive the survey (n = 23). These teachers received the survey by mail and were asked to complete the instrument and provide their comments on the completeness, accuracy,

readability, and clarity of both the instructions and the assistance items. An examination of their responses revealed no systematic problems in the instrument.

Scaling

Two concerns were addressed by the results of this section of the instrument. First, we wanted to find the proportions of the teachers who had received or experienced each form of assistance. For instance, we wanted to know who had been assigned a mentor or *buddy* teacher. That required a dichotomous scale that determined whether the assistance item had been experienced. We decided to use the term OCCURRED and to define it as follows: "For OCCURRED below, please indicate whether you have experienced the event" (p. 190).

The second concern was how important the respondents considered the form of assistance to be. The reader should recall that there was also a third part of the survey instrument which is not being reported in this section (see Appendix B). Part 3 dealt with events; half of the events were worded in a positive form and half in a negative form. For the sake of simplicity, it was considered important to use the same magnitude scale for both parts. We initially decided to use a scale labeled IMPORTANT, to ask the respondent to rate the relative magnitude of the item's importance. On an initial prefield test with several graduate students, we found that IMPORTANT has a directional connotation and that for something to be important, it had to be positive for some respondents. In other words, if it were negatively worded but had a great magnitude of importance, some persons would respond that it had no importance, meaning that it was important that the event NOT OCCUR.

To overcome that problem, we then tried the term IMPACT and provided the instructions, "For the IMPACT scale, please circle the number that best describes how much IMPACT the event has on you (or would have on you, if it occurred) (p.190). The IMPACT scale ranged from none = 0, minor = 1, moderate = 2, major = 3, to critical = 4. A subsequent prefield test indicated that the IMPACT scale secured the kinds of data we were seeking.

For the purposes of this analysis, the OCCURRED scale is a nonadditive list of items which either occurred or did not occur. To the extent that the respondents' answers accurately reflected their experience, reliability of that part of the instrument can be taken to

be stability and mechanical reliability, which was evidenced by the field test's conclusions regarding the clarity, simplicity, and readability of the survey itself. Because additional analyses are planned later which will necessitate estimation of internal consistency, a Cronbach's Alpha of .74 was computed for the OCCURRED scale.

By similar reasoning, the IMPACT scale is also not additive for the purposes of the present analysis. Planned subsequent analyses will involve use of the scale as an additive measure of other constructs and for those applications internal consistency will provide an appropriate measure of reliability. The computed Cronbach's Alpha for the IMPACT scale was .88.

Findings

Demographics

The three hundred fifty-two respondents were almost equally divided between male and female (50.6% male and 49.4% female). Beginning vocational teachers in 1989-90 were highly represented by Whites (88.9%). As indicated in the methodology section, the beginning teachers were randomly selected and, therefore, represented various certification patterns. As indicated previously, these certification routes were grouped into TEC and NTEC. When sorting the respondents into these groups, fifty-seven percent were teacher education certified (TEC) with an average age of 29.5, and forty-two percent were nonteacher education certified (NTEC) with an average age of 35.6. When asked about their levels of job satisfaction and stress, both groups were equally satisfied and were experiencing about the same level of stress (see Table 15).

The largest group of new teachers were in Trade and Industrial Education with Business and Home Economics next. These areas made up 19.3% and 18.7% respectively of the beginning teachers. Of the identified service areas, Trade and Industrial Education also received the highest salary ($23,175) of all beginning teachers (see Table 16). As shown in Table 15, the NTEC teachers on the average received a higher salary than TEC teachers (NTEC = $23,156 and TEC = $20,907). After one year of teaching, 86.5% planned to stay in teaching. The other 15.4% intended to do something else. This supports other research regarding turnover rate among beginning teachers (Camp, 1988a).

Table 15

Age, Income, Job Satisfaction, and Stress by TEC and NTEC Beginning Vocational Teachers 1989-90 *

Certification	Percent	Average Age	Income	Job Satisfaction	Stress
TEC	57%	29.5	$20,907	2.9	2.6
NTEC	42%	35.6	$23,157	2.9	2.5

Job Satisfaction Scale 0 – 4
Stress Scale 0 – 4

* Survey of 352 teachers

Table 16

Percentage and Income for Beginning Vocational Teachers by Subject *

Subject	Percent	Income
Trade and Industry	29.4	$23,175
Business	19.3	$21,102
Home Economics	18.7	$19,753
Agriculture	11.8	$23,004
Health Occupations	7.8	$22,392
Technology	4.9	$20,713
Marketing	4.0	$20,500
Other	4.1	$23,271

* Survey of 352 teachers

Induction Assistance Programs

One of the initial considerations was whether the beginning vocational teachers were being served by any sort of induction assistance program, and, in particular, whether mentor or buddy teachers were assigned to help them. Table 17 indicates that only 25.5% of beginning vocational teachers were involved in assistance programs, but slightly over half (56.2%) reported having a mentor or buddy teacher assigned. Only 18.3% of beginning vocational teachers were being served by both a mentor/buddy and an organized assistance program, while 36.5% were receiving neither form of assistance.

For the NTEC teachers who entered the profession through an alternative route (vocational certification based on occupational experience or a technical degree) the picture is somewhat brighter. A total of 66.4% ([28+71]/149) of the NTEC teachers reported an assigned mentor/buddy teacher and 28.8% (43/149) were involved in some sort of beginning teacher program. Only 18.8% (28/149) were involved with both an assistance program and an assigned mentor/buddy, while 23.5% (35/109) had neither.

Induction Assistance Needed and Received

The question of what assistance is needed by beginning vocational teachers was partially answered in the survey development stage. Table 18 provides a listing of assistance needs which were identified by the qualitative examination of the NGT results. These were then validated by the panels of teacher educators, experienced teachers, and beginning teachers. The percent of respondents who had received each form of assistance is indicated as the Percent Reporting. In addition, the Mean Impact Rating provides a measure of the degree to which each of the assistance needs was considered important by the national sample of beginning vocational teachers.

The beginning vocational teachers were asked whether each of the assistance items had occurred in the first year. Examination of their responses indicates the most frequently reported form of assistance was feedback and evaluation from the principal (76.7%). The least frequently reported form of assistance was a teacher's aide for the beginning teacher.

The two items with the highest impact rating (see notes at end of Table 18 for rating scale) both dealt with curriculum (provision of adequate materials, textbooks, and workbooks and availability of curriculum guides). The lowest rated item was orientation to the vocational student organization. Given that 2.0 is the mid-range of the scale, twenty-

one of the twenty-two items were rated to have moderate to major impact. It is interesting to note the assignment of a mentor or buddy teacher was rated only as a moderate impact item overall.

If we consider a mean rating of 2.5 or higher a major impact item, then a comparison of the two columns of data shows that the assistance items rated as major impact were also among the most frequently reported. Of the eight items rated at impact = 2.5 or higher, six were reported to have occurred by over half of the respondents. Only one of those major impact items (extra planning period for beginning teachers) was reported at a rate substantially below the rest, at 19.8%.

TEC and NTEC Teachers

The next research question dealt with differences between teachers with (TEC) and those without (NTEC) teacher education backgrounds. A cursory examination of the data reported in Table 19 indicated little obvious difference between the two groups.

Because the independent variable in this analysis is the source of certification and the multiple dependent variables are the responses to the OCCURRED scale for each of the twenty-two items, traditional multivariate methods offer little potential to analyze the data on a total-model basis. However, using the proportion of the TEC teachers responding "Yes" as one variable (P_{1i}) and the proportion of NTEC teachers responding "Yes" as a paired variable (P_{2i}), it was possible to construct a third variable (delta, represented as D_i) to represent the difference between the two proportions (see Table 19). We then used a simple t-test to determine if the mean of the delta variables was significantly different from 0 (R. Meyers, personal communication, May, 1991). The procedure involved is shown in simplified form in Figure 7.

An alpha-level on the whole-model analysis was set at .05. The computed t-statistic of 7.16 ($p < .01$) was significant, leading to the conclusion that, taken as a whole, the kinds of assistance received were different for the two groups of teachers. Alpha levels for the subsequent analyses (also t-tests) to determine which of the specific items were different for the two groups was set at .01. The more conservative alpha was set to reduce the inherent error in multiple univariate tests of significance, even though the whole-model analysis indicated a significant difference.

Table 17

Availability of Assigned Mentors and Induction Assistance Programs for Beginning Vocational Teachers in the United States, 1989-89 *

		TEC	NTEC	TOTAL
BTP-YES	Mentor/Buddy – YES	35	28	63
	Mentor/Buddy – NO	10	15	25
	SUBTOTAL	45	43	88
BTP-NO	Mentor/Buddy – YES	60	71	131
	Mentor/Buddy – NO	91	35	126
	SUBTOTAL	151	106	257
	TOTALS	196	149	345

Notes:

BTP	Involved in Beginning Teacher Program?	(Yes/No)
TEC	Teacher Education Certified.	
NTEC	Nonteacher Education Certified.	

* Survey of 352 teachers (with missing data on 7 teachers)

Table 18

Percent of Beginning Vocational Teachers Reporting the Occurrence and Mean Perceived Impact Ratings of Various Forms of Induction Assistance

	Percent Reporting Occurrence	Mean Impact Rating
Planning time was available before school started.	66.8	2.72
Extra duties (bus, etc.) reduced for beginning teachers.	36.2	2.09
A mentor or buddy teacher was provided.	60.0	2.49
An orientation on school policies was given.	71.8	2.59
Curriculum guides were available for my program area.	75.1	3.01
Time was available to observe other teachers teaching.	30.4	2.11
An orientation tour of school facilities was given.	55.7	2.01
A workshop for new teachers was held.	57.9	2.30
A Vocational Student Organization orientation was held.	18.1	1.72
An inservice on counseling students was provided.	16.2	2.10
An inservice on classroom management was provided.	31.5	2.41
An inservice to explain the curriculum was provided.	20.0	2.32
An inservice on time and stress management was provided.	24.2	2.16
Extra planning period was provided for beginning teachers.	19.8	2.54
My principal provided helpful evaluation and feedback.	76.7	2.78
Information on purchasing supplies/equipment was provided.	55.2	2.61
Adequate materials, textbooks, and workbooks were provided.	65.3	3.06
My students' parents provided support for my program.	52.5	2.49
A list of available resources and vendors was provided.	46.7	2.45

Table 18 (continued)

	Percent Reporting Occurrence	Mean Impact Rating
A beginning teachers' handbook was provided.	50.0	2.34
Clerical support was provided for beginning teachers.	46.3	2.50
A teacher's aide was provided to beginning teachers.	14.7	2.03

Notes: TEC Teacher Education Certified

NTEC Nonteacher Education Certified

Rating Scale: 0=none, 1=minor, 2=moderate, 3=major, 4=critical

Sample of 352 teachers

Table 19

Percentages of NTEC and TEC Teachers Who Reported They Had Experienced Various Forms of Induction Assistance

	NTEC	TEC	Delta*
Planning time was available before school started.	59.3	73.0	.136**
Extra duties (bus, etc.) reduced for beginning teachers.	42.0	31.8	.102
A mentor or buddy teacher was provided.	69.9	52.0	.178**
An orientation on school policies was given.	68.3	75.0	.067
Curriculum guides were available for my program area.	75.1	75.1	.000
Time was available to observe other teachers teaching.	27.8	32.7	.049
An orientation tour of school facilities was given.	51.8	58.9	.071
A workshop for new teachers was held.	62.3	55.1	.073
A vocational student organization orientation was held.	27.1	11.2	.159**
An inservice on counseling students was provided.	17.9	15.2	.028
An inservice on classroom management was provided.	33.6	30.3	.033
An inservice to explain the curriculum was provided.	24.7	16.7	.080
An inservice on time and stress management was provided.	22.6	25.9	.033
Extra planning period was provided for beginning teachers.	29.0	13.6	.153**
My principal provided helpful evaluation and feedback.	78.6	75.8	.029
Information on purchasing supplies/equipment was provided.	55.9	55.0	.008
Adequate materials, textbooks, and workbooks were provided.	68.8	62.9	.058
My students' parents provided support for my program.	45.6	57.2	.116
A list of available resources and vendors was provided.	48.3	46.0	.023

Table 19 (continued)

	NTEC	TEC	Delta*
A beginning teachers' handbook was provided.	61.1	42.4	.187**
Clerical support was provided for beginning teachers.	49.3	43.6	.057
A teacher's aide was provided to beginning teachers.	16.6	13.1	.034

Notes: TEC Teacher Education Certified

NTEC Nonteacher Education Certified

* $t=7.16$ for H_0: Delta Mean = 0
$p(t_{21} > 7.16) < .0001$

** Significantly different, at $p < .01$

Survey of 352 teachers

Figure 7

Procedures Used to Test the Whole Model Hypothesis of No Difference Between TEC and NTEC Teachers

$D_i = P_i - P_{2i}$

$MD = \Sigma D_i / 22$, MD = Mean, D_i

$t = MD / s_e (MD)$, s_e = Standard Error, D_i

$n = 22$, $df = 21$

H_o: $MD = 0$

An examination of Table 19 shows that for most forms of assistance, the NTEC teachers generally fared better than the TEC teachers, having a higher percentage reporting "Yes" on eighteen out of the twenty-two items. The TEC teachers reported experiencing only four forms of assistance more often. With $\alpha = .01$, there were five forms of assistance for which the reported frequency were significantly different for the two groups of teachers (see Table 19). The variables with significant differences were as follows:

- Teacher education certified (TEC) teachers were more likely to have planning time available before school started.
- Teachers coming into the profession from other routes (NTEC) were more likely to have the following:
  - A mentor or buddy teacher
  - An orientation to vocational student organizations
  - An extra planning period for the first year
  - A beginning teachers' handbook.

EXEMPLARY PROGRAMS

In an effort to identify exemplary programs for the induction of beginning vocational teachers, State Directors of Vocational Education were contacted and asked to nominate programs in their states which were considered exemplary beginning teacher assistance or induction programs. Thirty programs were nominated in the initial round. After being contacted, thirteen programs submitted more detailed information. Most of those were generic to all education, and one did not qualify for our review since it was a teacher preparation program and not a new teacher assistance program. Only three programs were specifically designed for vocational teachers and two others had adaptations for vocational teachers. The following twelve programs were selected for more detailed examination.

For more details of the process of identifying the exemplary programs and for securing detailed information on them, see the section titled "Methodology." The information that follows was derived from telephone interviews and on-site field visits to

study two of the programs, telephone interviews to study six of the programs, and a review of printed information submitted by five additional programs.

Florida Beginning Teacher Program

The Florida Beginning Teacher Program, initiated in 1983, is a professional development program for all beginning teachers in the state, kindergarten through twelfth grade, and includes vocational teachers—both those with and without teacher education and nonteacher education backgrounds. The purposes of the program are the following:

- to ensure documentation of ability to demonstrate the minimum essential generic teaching competencies and the specialization competencies adopted in State Board of Education Rules, and
- to provide support services to individuals during the first year of employment as a Florida teacher.

The implementation of the program is left up to each local school district which submits a plan for approval by the State Education Commissioner. The Beginning Teachers' Programs throughout the state are linked to certification and are heavily oriented toward evaluation. School districts are expected to make the program more than just an evaluative one. The Orange County School System has an exemplary program. Orange County has about seventy-five hundred teachers with seven hundred sixty-seven new teachers in 1989-90. The county is growing and the number of new teachers each year is expected to reach one thousand in the near future.

The Orange County School System's beginning teacher program is known as the Professional Orientation Program. It is conducted by a professional staff housed in the school board building with administrators and peer teachers overseeing the program in each school. The program is funded with state money for staff development. The program is provided for a full school year with the exception of experienced teachers new to Florida. Those teachers may take a shorter route to demonstrating the required competencies.

Within the program, teachers are assisted in developing twenty-seven competencies (one hundred twenty-one behaviors) within the following six domain areas: planning,

management of student conduct, instructional organization and development, presentation of subject matter, communication (verbal and nonverbal), and testing and evaluation. The behaviors are precisely specified teaching techniques derived from a review of the educational literature on teaching effectiveness. Beginning teachers are shown the behaviors and peer teachers and other support team members are taught how to determine when the behaviors have been demonstrated.

Requirements of Orange County's Professional Orientation Program include the development of a portfolio for each beginning teacher; a support team consisting of a building level administrator, a peer teacher, another educator, and the beginning teacher; and attendance at orientation workshop and workshops on the six domains. The portfolio includes a professional development plan, formative information, summative information, and eventually documentation of the beginning teacher's demonstrated competencies. Screening observations are made by the administrator and are used to develop the professional development plan. Administrators also document the beginning teacher's attainment and demonstration of the twenty-seven competencies. Administrators and peer teachers must also attend a one day training workshop to serve as members of the support team.

As mentioned, workshops are provided for beginning teachers to orient them to the program and to teach them how to demonstrate the competencies within each of the six domains. Vocational teachers attend sessions provided for all teachers. Some sessions are held in the school site such as the Orange County/Mid-Florida Technical Institute. When this occurs, the Professional Development program is modified by using vocational related examples. A distinction was made between a "peer teacher" and a "mentor" by a group of teachers in this school. They believe that a peer teacher assisted more with instruction, whereas a mentor assisted a new teacher more with the nuts and bolts of the program.

The director of Mid-Florida Technical Institute indicated that vocational teachers coming out of industry know their trade and the skills of that trade. However, the Professional Orientation Program has been invaluable in assisting these teachers to learn how to teach their knowledge to somebody else.

In addition to the workshops provided for new teachers, the Orange County School System has an extensive resource center for the professional development of teachers. A

newsletter is provided to peer teachers to assist them with information about assisting beginning teachers.

A major concern voiced both by a focus group of beginning teachers and by a number of participating peer teachers was the massive amount of paperwork involved and the intimidating nature of the program. The peer teachers mentioned several times their negative feelings concerning the requirement that they make the pass or fail judgement for beginning teachers.

Institute for Professional Development

The Institute for Professional Development is located in Orlando, Florida. The purpose of the institute is to assist Orange County Public Schools' teachers to improve their professional performance. The institute has no relationship to certification. The services are free to any teacher in Orange County. The funding source is the Orange County Public School System, but it is operated by the University of Central of Florida and supported by the Classroom Teacher Association.

The operation of the institute is through the Dean's office in the College of Education. There is a project manager, a program developer and an advisory council. The institute has an on-site director with two professional staff members. Associate specialists are hired as needed from experienced competent teachers.

The institute provides teaching skills information, teaching skills practice and critiquing, classroom demonstration and assistance, specialists' consultation and assistance, career counseling, and assistance in stress management. The institute also helps by suggesting teachers obtain subject matter coursework, attend staff development workshops, seek out employee assistance, and use school based resources and community programs.

The teacher's initial contact with the institute's director must be in the form of a self-referral by the teacher. The teachers who use the services of the institute use it at their own initiative. Teachers cannot be required to contact the institute and the fact that a self-referral is made is not communicated to anyone else by the institute personnel. Administrators cannot send a teacher to the institute, but they may suggest that a teacher may wish to seek out the assistance of the institute. Information collected on a teacher is

for his or her use only and is held in strict confidence. The attitude of the institute is a humane one—to save teachers.

The initial visit to the institute is diagnostic, to determine the teacher's problems and possible solutions. Upon request by the teacher, the institute's staff or consultants will visit the teacher's classroom to provide nonevaluative feedback. This feedback is given to the teacher the same day as the observation. A teacher may also arrange, through the institute, visits to other teachers' classrooms.

Thus far, few vocational teachers have used the institute. Fifty percent of the teachers who have used the services have been teaching ten or more years.

Kentucky Teacher Internship Program

Kentucky's beginning teacher program, Kentucky Teacher Internship Program (KTIP), was mandated by legislation in 1985, and implemented through regulations approved by the State Board for Elementary and Secondary Education. The purposes of the program are to ensure that all teacher interns exhibit the knowledge and skills considered essential for effective teaching performance and to increase the likelihood that new teachers will experience success during their first year in the classroom. The program is funded through the state system. The Florida program was studied as a model for developing the Kentucky program.

The program is administered by the Office of Instruction and the Office of Vocational Education in the Kentucky Department of Education. The program is the same for teachers regardless of their certification route. The Office of Vocational Education administers the Testing and Internship Program for all nonteacher education degree teachers and nondegreed vocational teachers. The Office of Instruction administers the program for all teacher education degreed teachers and includes degreed vocational teachers. The program is managed from the state level and state personnel provide all the forms, training materials, and handbooks.

The local personnel must implement the program put in place by the state. The beginning teacher or intern has a committee who works with the teacher to prepare a professional development plan (PDP). The committee is made up of the principal of the

intern's school who serves as chair, a resource teacher (mentor) preferably in the same school, and a teacher educator. Each of the three committee members is required to observe the intern at least three times for a total of nine observations. The initial meeting of the committee, including the intern, is an orientation to the KTIP. After the first set of observations, the committee meets with the intern to discuss goals and objectives, strengths, and growth areas. A professional development plan and portfolio are then initiated. After the second set of observations, the committee meets first by themselves and later with the intern. The PDP is implemented, and the portfolio is expanded. After the third set of observations, the three committee members meet again to review the intern's progress. The intern later joins them to discuss his or her progress. At this time the committee makes a judgment as to whether the intern has satisfactorily completed the program.

To serve on an intern's committee, the members must attend a three-day training session on the use of a classroom observation instrument and then pass a written test. Those who pass are certified for one year. To continue to serve on the committee, members must attend an update session each year. The classroom observation instrument was developed based on research conducted in Kentucky.

The resource teacher or mentor is responsible for spending seventy hours a year with the intern. Twenty of the required hours must be in observation of the intern and the other fifty hours are spent in consultation with the intern. Resource teachers are paid $1,000 a year for their work with interns.

The internship program is one hundred forty days in length and should be completed by April 15. If a teacher starts later in the year, adjustments are made in the schedule. If employment in teaching is continuous, the beginning teacher may make two attempts to complete the program and must complete it by the end of the second year of teaching.

In addition, the teacher must pass a Comprehensive Basic Skills test and either the appropriate National Occupational Competency Testing Institute (NOCTI) examination or the National Teachers Examination (NTE). Certification is contingent on their satisfactory completion of the program. Having successfully completed the internship program, the basic skills test, and the NOCTI or NTE examination, the teacher's eligibility to teach in Kentucky is good for four years.

According to program officials, the program is well received. They indicated that resource teachers are enthusiastic about the program and believe that it has made them better teachers. It is expected that the program will continue. Even though the program is expensive, it is believed to be very beneficial. Kentucky has now implemented an internship program for principals. As with the Florida program, the KTIP program is directly tied to certification evaluation, which may be its major disadvantage.

Professional Development Center—Yerington, Nevada

The Professional Development Center (PDC) in Yerington, Nevada was specifically designed and developed to address the needs of beginning occupational teachers, counselors, and administrators within a thirteen county radius in rural Nevada. The center typically serves one hundred to two hundred beginning occupational teachers, administrators, and counselors for grades seven to fourteen each year. It is funded on a year to year basis with a grant made available through the Carl D. Perkins Vocational Education Act of 1984. The year 1990 is the fourth consecutive year that the Professional Development Center has been funded. The center's director anticipates that it will continue to receive funding next year.

At the present time, the center does not have its own facilities. However, a "movable" classroom/office is to be obtained in the near future. The staff for the center consists of the director, who conducts all of the center's workshops, and a secretary.

The new teachers' program in Yerington consists of a two-day workshop, that is followed by a teacher observation period, a teacher conference, and coaching. The Professional Development Center's director conducts seven two-day workshops strategically located within the appropriate areas. The workshops are designed to assist beginning teachers in learning teaching tactics and strategies. These strategies and tactics deal with several broad subjects: reaching the at-risk student, reducing the drop out rate, building self-esteem, managing stress, dealing with teacher burnout, meeting the needs of the special student, maintaining fairness in the classroom, promoting articulation between grades seven and fourteen, implementing methods for peer coaching, and teaching effectively in the occupational setting. The workshops teach the Madeline Hunter Model of Clinical Supervision.

Participants are recruited for the center through contact with Nevada's local superintendents, a newsletter that is mailed out at the beginning of the school year to all teachers within the thirteen counties, and local newspapers. Names of qualified and interested individuals are compiled into a database where they are easily accessible. Ninety percent of last year's program participants have enrolled in the program again.

Occupational teachers, administrators, and counselors who participate in the center's program and attend the workshops do not typically get their expenses paid. In other words, it is those people who are honestly interested in the things the program has to offer that actually attend. The center does, however, attempt to pay a teacher's school system for one full day of a substitute's salary in hopes that the school system will voluntarily pick up the other day and permit the teacher to attend the workshop.

A unique aspect of the Professional Development Center in Nevada is that it focuses on postsecondary educators as well as secondary educators. This is quite unusual because most programs of this type do little if anything to help prepare and orient postsecondary personnel. Fortunately, the Professional Development Center's contact with these postsecondary institutions has fostered some positive developments. Due to some initial contact through the center, secondary and postsecondary institutions more than ever are willing to discuss and consider the possibility of working on some type of articulation.

Participative, administrative, and legislative feedback about the Professional Development Center have all been extremely positive. At the present, the center's future looks bright.

Clarke County Professional Development Center

A Professional Development Center (PDC) was operated for the occupational teachers in Las Vegas and Clarke County, Nevada, during school year 1989-90. The program consisted of a consultant, a supervisor, and a part-time secretary. The consultant received training on the Madeline Hunter Model. The facility consisted of a small office, files, and a computer. In addition, a classroom was available for sessions.

The PDC is defined by the consultant of the program as "a program that has been designed for the teachers to enhance their teaching skills, relate their skills to the discipline

they're going to teach, and offer support and ideas for their future classroom performance. The PDC was set up for assistance to all vocational teachers." Letters were sent to each new teacher, and they were advised of the center's purpose during their new teacher orientation.

Workshops on teaching techniques were provided in three phases. In level one, teachers learned the basics of teaching such as the steps in the Madeline Hunter Model with opportunities for teacher practice. Level two was a continuation of level one with emphasis on reinforcement, retention, and transfer. Level two provided more classroom management skills for the teachers. The level three workshops continued with classroom management and students who need additional reinforcement. Workshops were two days in length during the week. Teachers were released from school to attend the workshops, and substitutes were paid by funds from the project. Additional sessions were often offered on Saturday or on weekday afternoons. Teachers could obtain university credit if they desired. The workshops also provided the teachers with a network. The consultant made at least one clinical visit to each of the teachers during the school year. If teachers wanted to attend some other professional development activity, the consultant would take over the teacher's classes for the time.

The original source of funds for the program was the Perkins Act. The teacher assistance program in Clark County is not operating this year due to lack of funds. However, the vocational teachers thought so much of the program that the individual who was the consultant for the program still holds sessions for them.

Oklahoma Entry-Year Assistance Program

An entry-level assistance program was implemented in Oklahoma as a result of legislation in 1981. The intent was to establish qualifications of teachers in the accredited schools of Oklahoma through licensing and certification requirements to ensure that the education of the children of Oklahoma will be provided by teachers of demonstrated ability. The bill required licensed teachers to participate in the Entry-Year Assistance Program. This program required that during the initial year of teaching in an accredited school the teacher be under the guidance and assistance of an appointed committee in order to receive their Oklahoma teaching certificate.

Each beginning licensed teacher works with a committee. The entry-year assistance committee consists of a teacher consultant, the principal or assistant principal of the entry teacher's school, and a teacher educator or other appointed educator. In all cases, at least one member of the committee must have expertise in the teaching area of the entry-year teacher. The committee is responsible to assist the entry-year teacher during the first year, make recommendations regarding certification, and make recommendations for staff development for the teacher. The program was based on the Florida model as discussed previously.

Each entry-level assistance committee is required to meet with the entry-year teacher at least three times during the year. The first meeting of the committee is one of orientation and organization. Each committee member is required to make three independent class observations of the entry-year teacher. Two of the observations with one completed form are made prior to the second meeting of the committee. The evaluations are reviewed with the entry-year teacher during the second meeting. Between the second and third meetings, the members of the committee will make a third observation and complete a second evaluation form. The evaluations of the committee members are reviewed with the entry-year teacher during the third committee meeting. During the third committee meeting, members discuss their observations with the entry-year teacher and decisions regarding certification are made. At this point meaningful parental input is considered in evaluating the teacher's performance.

The teacher consultant's role is to be a mentor to the entry-level teacher in order to provide guidance and assistance to the teacher during the induction year. The mentor is expected to be a role model and provide direct assistance to the beginning teacher by demonstrating teacher skills, conducting observations and providing feedback, participating in the entry-year committee, assisting with professional development, and providing informal contact with the entry-level teacher.

There is a packet available that describes the program and provides the observation forms. The packet includes a guide for scheduling the activities of the assistance program. In addition a handbook is provided for the teacher consultants. The handbook provides information to the consultants on being a mentor and strategies that they can share with their proteges.

Oklahoma Vocational Technical School

The assistance program for vocational teachers on one campus in a Vocational Technical System in Oklahoma is based on, but not required by, Oklahoma legislation known as the "Entry-Year Teacher Bill" (House Bill 1706). This bill required an entry experience for all beginning licensed teachers. The law did not apply to entry-year nondegree vocational teachers; however, this program was developed for vocational teachers based on this law.

Under the law, a consultant is made available for every entry-year teacher and that consultant is a successful, experienced teacher, teaching in the same field as the entry-year teacher. The consultant receives a $500 stipend for the year and is required to put in seventy-two hours working with the entry-year teacher. In addition, an entry-year team is set up comprised of the beginning teacher, the consultant, a teacher education representative, and a school administrator.

The program director did not have access to the same field teachers within the school in most cases, so she decided to try to identify and secure the services of the best teachers in the state in each discipline. Consultants in the same subject matter were obtained by contacting the State Department of Vocational-Technical Education. This was found to be satisfactory because consultants were selected from a state-wide pool which enabled the selection of the very best teachers.

In this program, the consultants were teachers in other schools. Therefore, in order to get seventy-two hours of consulting time, the entry-year teachers went to their consultants' schools once a month. The majority of time spent together by the consultant and beginning teacher was spent in the consultant's school. Travel and substitute teachers were paid for the entry-level teachers. Consultants came to the entry teacher's school three times during the course of the year. Under the guidelines, there are four required committee meetings. The first is between day thirty and day one hundred of employment of the beginning teacher. The second meeting is between day one hundred and day one hundred and fifty. And, the third meeting is sometime after April fifteenth. The purpose of the first meeting is to provide introductions among committee members, explain the regulations, and more. Following the initial meeting, each team member is required to make two observations of the beginning teacher. The observations must occur between the first and second meeting. The team discusses the observations at the second meeting.

After the second meeting, a third observation takes place and is discussed at the third meeting. The consultants were provided with inservice training on how to observe. Observations, committee meetings, and inservice training were accomplished in four visits by the consultant to the entry teacher's school.

The program is relatively inexpensive to operate. The expenses for the program consisted of fees for consultants, substitutes, and travel for a total of about $5,000 for the school year for four teachers. The directors in the schools supplying the consultants were so pleased to participate that they each picked up the cost of substitutes and travel for the consultant from their schools. The administrator who implemented the program felt that the use of outside consultants resulted in an improved curriculum in the school system, the entry teachers improved their classroom management, the school gained better use of laboratory space, and it improved their human relation problems in the school. The administrator also thought that the consultants showed growth from the experience.

The program is not tied to certification under the state law; however, the committee was called upon to recommend at the end of year one whether the teacher should be certified or required to go through a second entry-year experience. If a teacher goes through a second year experience then the committee again has to recommend if the teacher is to be certified or discontinued.

Oregon Induction Program

The Oregon Department of Education submitted materials which included descriptions of two induction programs in Oregon. *Induction Programs Support New Teachers and Strengthen Their Schools* by M. C. Jensen (1986) describes these two programs. The first is a program in the Tigard School District and the other is in the West Linn School District.

In the Tigard School District, the development of new teachers is only one part of a continuous development plan for all teachers. There are two staff development specialists who are responsible for the coaching and development of new teachers.

New teachers and those new to the system will meet with a staff development team within the first two or three weeks of the school year. The teacher understands that the

initial visit from the staff developer is confidential. Neither the school principal nor other administrators learn of its content. The personal conferences focus on both the teacher and the class. When observations are made of the new teacher, they are recorded either in writing or on tape, and a conference takes place as soon as possible. Classroom observations and conferences are later integrated with formal workshops. Sessions include discussion as well as formal presentations. Four half-day workshops were offered on released time during the morning.

Frequent group meetings offered a combination of instruction and encouragement. Coaches who are selected from top teachers and principals of schools with new teachers are provided an inservice on the needs and characteristics of beginning teachers. When a teacher is in difficulty and seems unresponsive to feedback and staff development training, a plan of assistance is written. This staff development program began approximately eight years ago and has grown steadily since that time.

In the West Linn School District, beginning teachers and those new to the system meet once a week with their school's administrator. The weekly meetings are intended to acquaint new staff members with the district's policies, procedures, and values. The meetings also provide the opportunity for new teachers to develop relationships with colleagues and administrators. The needs of the new teachers determine the content of the sessions. Each teacher has a teaching partner, and, in addition, the new teacher can request a peer coach during the first year of teaching. The new teachers do a self-assessment of their skills in the areas that the district has identified as critical to effective instruction. Seminars during the second quarter are based on the participants' input. The seminars in the second quarter are conducted by a training team composed of district administrators and teachers from outside the district. The attitude of the administration is that working with new teachers is one of their most important tasks.

New York Mentor Teacher-Internship Program

For four years, 1986-1990, the New York legislature appropriated a total of $35,000,000 to be distributed to local school districts and boards of cooperative education services for the development of teacher-internship programs. Twenty-five programs were funded for 1986-87, twenty-nine for 1987-88, and fifty-two for 1988-89. Districts submitted competitive applications with plans for implementing teacher-internship

programs. The purpose of the programs is to foster the development of teacher-internship programs in local school districts in order to support and guide first-year teachers and retain teachers in the profession.

In this program, a list of persons eligible to act as mentors must be compiled by a committee in each participating education agency. An intern can carry no more than eighty percent classroom instructional assignment while participating in this program. Mentors also have a load reduction which is based on whether they are part-time or full-time mentors.

New York Agriculture Teachers Program

Of particular interest to this study is a mentor program developed for agriculture teachers in the state of New York. The program was described in a document sent to us by the director J. P. Bail (1989). Goals of the program were to provide assistance to teachers in the early stages of their careers, increase the retention of beginning teachers, promote the personal and professional well-being of beginning teachers, satisfy mandated requirements related to induction and certification, gather information to improve both preservice and inservice courses, and develop a cadre of mentors for agriculture teachers. It was specifically stated that this was not a program to be used as a tool for evaluating new teachers.

Key steps described in this program as essential to a successful teacher/mentor relationship are the development of a list of qualified agriculture education mentors, the explanation of the mentor relationship to the new teacher, the assignment of a mentor to a new teacher, the confidentiality of the teacher/mentor relationship should be maintained, and the mentor should meet primarily with the new teacher and not include the administrator. Administrative concerns about the new teacher should be shared with the mentor only at the new teacher's discretion. The mentor program should not interfere with the performance evaluations of new teachers; the teacher/mentor relationship should continue throughout the year, but either party could terminate the arrangement; meetings and consultations with the mentor should be based on perceived needs; and the teacher/mentor relationship should take place naturally. The report provides additional information on the role of a mentor with suggested activities and how to match the new teacher and mentor.

Agriculture teachers from across the state were identified through the New York professional agricultural education teachers association. A workshop was supported by the New York State Education Department to train the cadre of experienced professionals who wished to serve as mentors for teachers of agriculture. The teachers were then paired with beginning agriculture teachers in nearby schools for a year-long association.

Connecticut's Beginning Educator Support and Training Program

The Beginning Educator Support and Training Program (BEST) is a comprehensive program to provide guidance and support for beginning teachers. It also serves as an assessment component to evaluate beginning teachers' proficiency in the Connecticut teaching competencies. Participants in the program include college graduates and teachers with initial educator or interim initial certificates. Other teachers who are issued a temporary ninety-day certificate and holders of durational shortage area permits are also included.

Mentors are considered to be the core of the program. They are experienced teachers who are trained to work with beginning teachers as resource people, peer coaches, and confidants. They are selected by a committee which has been trained in the recruitment and selection of mentors. There are rigorous guidelines for recruiting, selecting, and training each mentor. Each school keeps a pool of trained mentors, and when a beginning teacher is hired, the principal selects a mentor for the teacher from the pool. Funds are provided by the state to pay mentors for their participation.

There is an assessment component of the program. A three person assessment team composed of a teacher, administrator and state assessor evaluates the beginning teacher, through classroom observation, on the essentials of effective teaching. Each assessor independently visits the beginning teacher's classroom twice over the course of the year. The members of this assessment team also experience extensive training on the use of the Connecticut Competency Instrument. The member's assessments are also monitored to ensure accuracy. Beginning teachers who do not meet the standards of BEST the first year may be eligible for the program a second year.

Massachusetts' Tool Kit

Massachusetts' project, the "New Teacher's Tool Kit," includes a day long workshop, a teacher's manual, and a set of instructional and curricular resources. The state law which governs vocational technical education includes a requirement for all beginning teachers to experience this survival program. The program includes the assignment of a mentor to the new teacher. The State Department of Education staff monitors the progress of the new teacher throughout the first year. In three additional pedagogical workshops during the year, new teachers are also given an opportunity to exchange dialog.

Maine

A preservice institute is held for two weeks in August for beginning teachers. This is followed by three Saturday sessions held in October, January, and April. The purpose of these workshops is to enhance the skills of new teachers in the areas of classroom discipline, cooperative learning, and student motivation. The program has been in existence for fifteen years with constant input from practicing educators and administrators.

Notes to the Reader

Additional reviews of beginning teacher programs which were not examined during our research can be found in a publication titled *Assisting the Beginning Teacher* by Huling-Austin, Odell, Ishler, Kay, and Edelfelt (1989). The following reviews can be found on pages 116-140 of that document: Arizona's Teacher Residency Project; California's Induction for the Beginning Teacher (IBT); Oakland's School District and California State University at Hayward's New Teacher Support Project; District of Columbia's Inter-Mentor Program; Broward County's Beginning Teacher Program; Georgia's Alternative Certification Program for Critical Teaching Fields; Indiana's Project CREDIT; New Hampshire's Teacher Induction Program; North Carolina's Initial Certification Program; Nash County, North Carolina's Novice Teacher and Mentor Program; Wake County, North Carolina's Mentor/Novice Program; Tennessee's MAT Internship Program; Virginia's Teachers Need Teachers; West Virginia's Teacher Induction Program; and Wisconsin's Program for Mentoring Teachers. None of the above programs made accommodations for vocational teachers.

DISCUSSION AND CONCLUSIONS

After a three year review of literature that examined materials from 1933 to 1991—after massive data collection efforts undertaken as a part of this project—after the analyses documented in the fourth through the ninth sections—after all of that, we believe that we can draw some well-founded discussion and conclusions. In this section, each of the components of the research will be discussed. This will be followed by our interpretation and conclusions. The final section will present our recommendations.

Discussion Regarding the Transcript Analysis

From the outset, this section of the research has been a qualitative study. On the other hand, the almost quantitative treatment of the data, as suggested by Morgan (1988), allowed for some interesting comparisons within the limited set of participants.

Several interesting findings emerged from the analysis of the first-year daily logs for twelve beginning vocational teachers. When asked to list things that were negative and things that were positive, the beginning teachers negatives far outweighed their positives. This agrees with the literature which concentrates almost exclusively on the problems of beginning teachers. Yet, when the anecdotes of events reported were analyzed, the positive events far outweighed the negative events. It would seem that perhaps beginning teachers dwell on negatives even though in their daily lives they experience more positive occurrences.

The high proportion of negative influences, positive influences, and significant events that were vocational specific was also noteworthy. In all three domains, approximately a quarter of the influences or events were vocational specific. Clearly, that adds empirical evidence to Gage's (1977) plea for discipline specific research. Beyond that, it provides strong evidence for the premise of this study that induction assistance programs serving beginning vocational teachers should be designed to accommodate their unique needs.

It was hardly surprising to find the daily lives of beginning vocational teachers so dominated by students in all respects—positive influences, negative influences, and significant events. But the extent to which the educational system contributed to negative

influences and negative significant events was not expected and certainly cannot be considered encouraging. The educational system should be in the business of helping new teachers adjust to the job and succeed rather than interjecting impediments for the novice to overcome.

The low level of interaction between beginning teachers and their coworkers was also surprising. One would have hoped that experienced teachers would put more effort into socializing the novice into the faculty. On the other hand, this supports the vision that Goodlad (1984) portrayed of the teacher as isolated in a self-contained environment.

Clearly, this portion of the study implies that teachers lacking a teacher education background need early intervention in curriculum and pedagogy as Scott (1988) contended. On the other hand, their needs in time management and an orientation to the eccentricities of educational systems, as opposed to the procedures of the business world, may be just as important. Teachers with teacher education backgrounds appear to need early intervention in time management, technical subject matter, and morale maintenance.

Discussion Regarding Case Studies of Two Marketing Teachers

Our two marketing teachers, June and Jake, worked in very similar environments, each was the only marketing teacher in their respective schools. Both schools were in rural settings, and their training station sponsors were very supportive. They each had three preps with about the same number of students enrolled in their first year's classes (Jake taught three classes and June four classes). They both drove the same distance to and from school each day, and they both were involved in several extracurricular activities.

June seemed to have a better orientation to her job than Jake. She definitely had more time to prepare since she was hired two months prior to the first day of classes and Jake began his job eight days after school started. June had people volunteering to assist her; whereas, Jake had people to go to, but it seemed that he had to seek their assistance.

With both teachers having such similar situations and experiencing a successful first year, we asked ourselves—what happened to June, an extremely promising teacher, in her second year of teaching? The answers are still being explored as we dig further into her second year, but we can do some speculating based on what we know thus far.

Jake's and June's backgrounds, ambitions, and lives were very different. Jake was certified through a route other than teacher education, and June had a teacher education degree. We know from the overall study and from these cases that one route into teaching is not necessarily better than the other. On the other hand, teachers entering marketing education from such disparate routes bring into teaching different experiences and different assets and problems.

Jake was about twelve years older than June. He was settled with a wife and child and had an extensive amount of experience in retailing. Teaching had been a life goal for him, and he had spent a long time in reaching that goal. June really did not know what she wanted in life until her last couple of years in college. Even then, she was not sure that teaching was what she wanted until she had a positive experience during her internship. The demands of being an effective marketing teacher are great. June may not have been as committed and determined to make teaching her lifelong career as Jake appeared to be.

During their first two years, both teachers were overcommitted in their teaching roles, and they were pulled in several different directions at one time. We know that June graduated from a teacher education program that had high standards and promoted the idea that a well rounded program meant doing a good job of teaching marketing in the classroom, co-op coordination, providing adult education for the community, and having an effective DECA chapter. Jake had no preconceived notion or expectations when he went into teaching. We suspect that June was feeling the internal pressure of believing what she should be doing was much greater than what she was really capable of doing in her first years of teaching.

In addition to picking up the added responsibility of coaching in the middle of her first year, she also took an outside part-time job during the summer (keeping in mind that she was on a twelve month contract) and continued it into her second year of teaching. With all the activities that June was pursuing, she had to be tired much of the time and perhaps not as patient or tolerant of her students' behavior. She said the reason that she was getting out of teaching was because of the students, the very source of encouragement her first year. We question whether students change that much in a year's time.

We suspect that Jake was more conditioned to juggling several projects at one time with his extensive experience in retailing and supervising people. Even though the student's lack of motivation was frustrating to him, his adjustment in his expectations led

us to believe that perhaps his vast amount of experience with employees enabled him to make this adjustment more readily than June.

Jake was progressing nicely as he went into his third year of teaching. At this point, we believe that he will stay in some type of a teaching position whether it be marketing or something else. June, on the other hand, was entering her third year of teaching with the expectation that it would be her last. We plan to interview June at the end of her third year to see if she will continue in education or if she will become another teacher with excellent potential who did not want to tolerate the frustrations she was experiencing.

Discussion Regarding Case Studies of Three Agriculture Teachers

The first year as an agriculture teacher is an exciting time. The new teacher is in a somewhat familiar setting, since the teacher has attended school for over twelve years, but the situation is different from being a student. The new teacher is now in charge of the classroom and may feel lost. For most of the school day, the beginning teacher is alone without adult contacts. The first year can also be stressful because the new teacher feels pressure from many directions. The beginner is expected to perform like a veteran teacher but is rarely given the assistance and support needed to accomplish that task.

Of course, not all first-year experiences are bad. Beginning teachers receive positive feedback from students and others, and this encourages them to keep on trying. Agriculture teachers may also receive recognition because of student organization activities. Finally the mere realization of actually being a teacher is exciting for many beginners.

Beginning agriculture teachers need early, appropriate assistance. We believe they should be hired in either July or early August and allowed to use the extra time to prepare for classes. It would also be helpful for principals to hold a conference with them to try to determine their weaknesses. Once this has been accomplished, then appropriate interventions can be devised to help them overcome their weaknesses.

Discussion Regarding the Results of Nominal Group Technique Sessions

The problematic events or situations, critical for both NTEC teachers and TEC teachers, were identified during discussions. For all groups, both NTEC and TEC and over all four points of time during the first two years in a beginning vocational teacher's career, the problematic areas fell into the following categories:

- Student concerns such as lack of student motivation, lack of positive attitude, lack of ability to handle discipline and the basics; students misplaced in courses; and other student problems including inappropriate behavior.

- Lack of an orientation concerning the school's policies and procedures, job responsibilities, and communication.

- Time management and overcommitment.

- Instructional problems such as lesson plan development and delivery strategies; knowledge of or availability of curriculum; teaching out of field; staying ahead on lessons; time for self-study; and mixing different level students.

- Lack of adequate facilities, materials, textbooks, equipment (including maintenance), and Vocational Student Organization funds.

When the assistance needs were analyzed across all groups, the needs most identified were categorized into the following:

- *Time and Organization*
  Beginning teachers need more preparation time and assistance with organization. They identified the need for a lighter class load, no extra duties the first year, extra preparation period, time prior to school start-up, and others as ways to provide more preparation time.

- *Professional Development*
  Beginning teachers need to be encouraged to attend workshops and courses and to acquire various materials to assist them with instructional development and delivery.

- *Support*

  Beginning teachers felt support was needed from a number of areas, predominantly the administration, parents, the business community, and guidance.

- *Orientation*

  Beginning teachers need a thorough orientation and a new teachers' handbook with everything a new teacher needs to know.

- *Instruction*

  Beginning teachers need to make observations of other teachers, to attend workshops, and to acquire curriculum and other materials and information on teaching as mentioned above.

- *Physical Environment*

  Beginning teachers need adequate facilities, equipment, teaching materials, and supplies.

- *Mentor*

  A beginning teacher needs a planned mentor program which provides feedback and helps the teacher grow.

- *Opportunities for Interaction*

  Beginning teachers need opportunities to get together, and they need a troubleshooting line to call for assistance.

- *Positive Feedback*

  Beginning teachers need positive feedback from the administration and other teachers; they need recognition for doing a good job.

Students

Beginning teachers need assistance in handling students in general—more specifically they need assistance handling student discipline and poor student motivation.

- *Evaluation and Feedback*

  Beginning teachers need to be observed more frequently, and they need immediate feedback. They need to understand the evaluation system.

Discussion Regarding the National Survey of Beginning Vocational Teachers

Assistance Needed and Received

In spite of the growing recognition of the importance of induction assistance programs for beginning teachers, it appears that vocational teachers are generally not being served by such programs. Slightly more NTEC teachers than TEC teachers are involved in beginning teacher assistance programs. However, even with those, the proportion being assisted is dismally low.

More often than not, beginning vocational teachers who have an assigned mentor or buddy teacher are not involved in any other form of organized induction assistance. It would appear that many administrators who are responsible for beginning vocational teachers at least recognize the importance of providing some sort of help. Assigning a mentor is a low cost step that can be taken with little involvement on the part of the administrator and without the necessity of developing and funding a broader induction assistance program. On the other hand, simply assigning a mentor to the novice does not replace a structured induction assistance program. Moreover, it does not absolve school administrators of further responsibility to provide support and assistance to beginning teachers.

Even the most fundamental induction assistance needs are not being met for an alarming proportion of beginning vocational teachers. Provision of a curriculum guide for organizing a course that a teacher has never taught seems so basic that it is disappointing to find almost a quarter of beginning vocational teachers not receiving one. By the end of their first year of teaching, beginning teachers should reasonably expect the school principal to have visited their class and to have provided evaluation and feedback. Even that was lacking for almost one-fourth of the respondents.

Beginning vocational teachers regard inservice as very important—many different forms of inservice. Despite this, very little of the specific types of inservice perceived as important (e.g. classroom management, student counseling techniques, stress and time management) is being provided. Even a workshop for new teachers had been provided to only about half of the respondents. Beginning vocational teachers need a mass of information, but if all of it is delivered at one time, information overload is likely to ensue. Therefore, it appears that inservice programs for beginning vocational teachers should be

spread out over the year and conducted in small doses. They should be sequenced in such a way that the most immediate needs are met first. Inservice on the curriculum is needed early, as is inservice on school policies and information on purchasing. Optimally, the curriculum inservice should be completed before school starts. Classroom management inservice should be provided early during the year.

The results of this part of the study indicate that the perceived induction assistance needs of beginning vocational teachers with TEC backgrounds are very much like the needs of those teachers entering the classroom and laboratory directly from industry (NTEC). This is quite contrary to the literature and, indeed, to the findings of the qualitative parts of the study discussed previously. Nevertheless, this data suggests more similarities than differences between TEC and NTEC teachers in this regard.

For teachers with and without teacher education backgrounds, there was also little practical difference in the kinds of induction assistance received or in the perceived impact of the various forms of assistance. This indicates that in spite of the obvious differences in their training and experience, little distinction is being made in the schools between teachers entering the classroom from teacher education backgrounds and from industry backgrounds.

We did find that NTEC teachers were more frequently assigned mentors or buddy teachers, and that they were more often enrolled in some form of beginning teacher program. Even then, far too few teachers were being served by such programs.

Programmatic and Curriculum Needs

Most vocational courses are not organized around the content of a textbook. On the other hand, it is likely that curriculum guides and instructional materials do exist for virtually any vocational program. Far too often, curriculum guides and adequate instructional materials were still unavailable to our respondents, even at the end of their first year of teaching. Perhaps the guides and materials were actually available but the beginning teachers simply were never informed of their existence or were not told how to secure them—in which case they might as well not have existed at all. If curriculum guides and instructional materials are not available within the local school system, they are available somewhere. The beginning vocational teacher does not have the experience to know where to look or who to call.

School administrators and vocational education leaders should make certain that beginning vocational teachers are aware of their existence, and that they are provided with copies of curriculum guides as well as instructional materials for their courses. The beginning vocational teacher should not be asked to design the course, find the instructional materials, and provide the instruction without assistance.

Teacher release time is expensive and school budgets are always tight. But, if beginning teachers are to provide quality instruction and survive as teachers, they need more planning time than experienced teachers do. That is particularly true of beginning vocational teachers because of the time necessary to purchase laboratory supplies, maintain equipment, and practice teacher skills for demonstrations. First-year vocational teachers should be given an extra planning period—if not for the entire year, at least for half of the year.

Discussion Regarding Exemplary Induction Assistance Programs

The induction assistance programs we found nationwide were quite diverse. This confirms the information presented in the Huling-Austin et al. (1989) book. Induction programs range from those designed specifically for enforcement of certification requirements to those designed to provide intellectual and moral support for struggling novices. Programs between those extremes are more common than programs on either end.

We found the concept of a regional consortium approach used in Yerington, Nevada to be very interesting. It makes possible services to small (in numbers of teachers) school systems by spreading limited resources across multiple local education agencies. The central role of the state department of education, at least in terms of providing funding and regulatory impetus, is illustrated by the Orange County school system's Professional Orientation Program (POP).

The discipline specific needs of teachers from the vocational service areas were probably best met by the New York Agriculture Teachers program. The Massachusetts Tool Kit provides an example of how important an organizational system can be to guide a beginning teacher's first steps into the profession. Again, the Orange County, Florida POP provides a very detailed set of study materials and audiovisual materials that the teacher can

use. Many of the programs use mentoring, but the effectiveness of the mentoring programs varied greatly depending on the degree to which they were coordinated and supervised and to which the mentors were adequately trained.

The Oklahoma projects were also quite innovative. We found the concept of mentors from outside the school system to be refreshing. Beyond that, the idea that participating school systems would be willing to absorb part of the costs for operating such a program was encouraging.

Connecticut's BEST program illustrates the combination of evaluation and assistance. In contrast to the Orange County program, BEST separates the assessment and assistance functions. In the Connecticut program the assessment team does not include the mentor. In the Orange County program the mentor participates in the assessment function. The separation of the two functions is more consistent with the literature on mentoring. On the other hand, such separation clearly presents questions about the efficacy of the advice provided by a mentor who is not privy to the discussions of the evaluation team. There appears to be no clear right or wrong answer to that question.

Finally, we were both heartened and disheartened by this part of the study. There are some innovative and productive induction assistance programs in existence. But, there are not enough. Even worse, current budget crunches such as the one in California (Tushnet, 1991), are threatening the survival of induction assistance programs nationwide.

Relating Our Findings to the Literature and Theoretical Base

Ryan (1986) described four phases of professional development for beginning teachers: fantasy, survival, mastery, and impact. Clearly, many of our teachers experienced the fantasy stage at the beginnings of their careers. Both groups of teachers, regardless of their ages and backgrounds seemed to experience versions of a fantasy phase, but the experiences were quite different.

The teachers entering the profession at an older age and from industry or business backgrounds (NTEC) had been accustomed to working with adults in a mature setting. They expected to be treated as professionals by a school system that simply does not concern itself primarily with the feelings of its employees. The educational system rightfully centers on students, and, all too often, teachers must simply fend for themselves.

They also expected students to understand the importance of vocational preparation and to be interested and self-motivated. The realization that both sets of assumptions were incorrect provided a rude awakening.

For the teachers coming out of teacher education programs (TEC) that included student teaching experiences, those illusions were not a problem. They simply never expected adequate clerical support or modern facilities. They never expected adequate budgets or self-motivated students. For these people, the fantasy stage was crushed by the overwhelming complexity of the task of teaching without the support mechanism of a cooperating teacher to offer daily critiques, suggestions, and guidance in a priority setting.

We found that the fantasy phase for both groups lasted only a few weeks. By mid-October, the realities of the survival phase had indeed set in for almost all of our teachers. For the NTEC teachers, their lack of understanding of instructional planning and teaching skills forced them to seek out, even to devise on their own, new ways to pique student interest. They actively sought to survive the transition into teaching by mediating their shortfalls in the area of pedagogy. As mature, experienced workers, they adapted quickly and soon overcame these problems.

For the TEC teachers, the early advantage in terms of training in the rudiments of pedagogy soon evaporated with the press of a daily work schedule that did not allow for the luxury of extended planning time such as they had enjoyed during their teacher preparation. Their survival phase became dominated by late night lesson planning and fears of inadequacy in terms of technical knowledge. As younger, less experienced workers, they experienced difficulties maintaining a positive outlook over the long first year.

Super et al. (1957) would have us believe that workers in their early twenties enter a stage of vocational development called exploration-trial. This stage involves the taking of the first full-time permanent job at about the age of twenty-two to twenty-four. It is characterized by instability, insecurity, and experimentation. This period is followed, in the theory, by the establishment-trial stage from about age twenty-five to thirty and by a stabilization stage from approximately age thirty-one to forty-four.

We found that indeed, the TEC teachers entering the profession at an earlier age, experienced the kinds of insecurities and instabilities that would be expected in the

exploration-trial stage. Many such teachers leave the profession after year one, and again that would be predicted by the transition from exploration-trial to establishment-trial.

Generally, the NTEC teachers were consistently older and more experienced as workers before entering teaching. They seemed to begin the teaching experience not at the exploration-trial stage but at the establishment-trial stage. Even lacking the preparation in pedagogy enjoyed by the TEC teachers, their greater maturity and experience seemed to provide a greater stability and a greater adaptability to a new and stressful environment.

Conclusions

In spite of the mixed messages we received from our survey data, we believe that there are important and substantive differences in both the induction experiences and needs of teachers entering vocational education from teacher education certification (TEC) programs and alternative or vocational nonteacher education certification (NTEC) routes. Some of the differences are attributable to the pedagogical training that TEC teachers have gained from their teacher education programs. Other differences are attributable to the age and maturity gained by the typical NTEC teacher who has spent a longer time in the work world. It appears that the differences may be more qualitative than quantitative. To illustrate what we mean by that, both groups of teachers encounter a lack of adequate skill/knowledge during the early months of teaching. To meet those problems, they both need ongoing inservice programs, but the topics needed seem to be quite different, at least in the beginning.

Haberman (1985) and Sedlak (1987) were right when they concluded that professional preparation of teachers indeed provides very real and very substantive advantages to the TEC teachers. Those who advocate the elimination of teacher education as a prerequisite to classroom entry have failed to examine all aspects of the research—this research included.

Thus, the value of the maturity and work world experience brought to the vocational classroom by older persons entering teaching from alternative or vocational routes cannot be overstated. On the other hand, this advantage cannot be inferred for teachers entering the classroom directly from college without teacher preparation or

experience. This study did not examine that particular alternative certification route because it is simply not a common occurrence in vocational education.

The ideal solution would be to move toward a more mature beginning vocational teacher with more work world experience. Perhaps, recruitment efforts in vocational teacher education should center more on persons who are finding that their initial career choices are not satisfying rather than the traditional model of recruiting high school seniors to come directly into teacher education programs. This research may also lend support to the concept of postgraduate teacher preparation along the lines of the professional school model as proposed by The Holmes Group (1986), if only to assure that the entering teacher is beyond the exploration-trial stage of vocational maturity. Perhaps even a mandatory yearlong internship in the occupational area of interest, either between the junior and senior year or after completion of the degree program and before entering teaching, would provide that maturity.

But, in the final analysis and regardless of the age at which the novice enters teaching, a structured induction assistance program is indicated. For the younger teacher fresh out of college, it may initially emphasize time management and morale support along with technical skill development. For the older teacher entering the classroom directly from an occupational setting, it may initially emphasize curriculum and instructional strategies. In both cases, the induction assistance program must be flexible, and it must take into account the unique needs of the teacher in terms of (1) specific discipline, (2) vocational development level, and (3) background in teacher preparation.

The next section will present our vision of just such a program. It represents our recommendations based on the research reported in the previous sections and the discussion and conclusions reported in this section.

A MODEL INDUCTION ASSISTANCE PROGRAM FOR BEGINNING VOCATIONAL TEACHERS

The transition from novice to established teacher is too critical a process to be left to chance as it has been in the past. As the teacher shortage develops over this decade (Wise, 1988) and as demands for reform and improvement in education continue, we need to find a productive and effective way to assist the beginning teacher in making a smooth transition into the profession. What is needed is a structured, well-conceived, collaborative approach to induction assistance based on research, educational theory, experience, and the best thinking that we can bring to bear on the problem.

Based on an extensive review of the literature and three years of research, we have developed a model induction assistance program for beginning vocational teachers. In our research, we examined many thousands of pages of qualitative data; conducted field observations, interviews, and focus group sessions; administered hundreds of instruments of numerous kinds; conducted a national survey of the induction needs of beginning vocational teachers; and examined a number of existing programs of teacher induction assistance nominated by state directors of vocational education. We are now field testing the model that will be described in this section. There is every reason to believe that the model should be appropriate for beginning teachers from any discipline or from any school level; however, the research on which this model is based was limited to beginning vocational teachers, primarily at the secondary level. Further, for the most comprehensive induction program, the program is proposed to be implemented in its entirety. However, we realize that resources and environmental conditions may call for an adaptation of the program and its components to meet the needs of the local education agency.

This section is intended to provide an overview of the proposed induction assistance model referred to as the "Professional Development Program for Beginning Vocational Teachers." There are four guides which provide the details and in-depth explanations for each part of the total program. Currently, these guides are being field tested along with the model induction program and will be available at the conclusion of the field test. These guides are the following:

- *Professional Development of Beginning Vocational Teachers: A Beginning Teacher Handbook* (Heath-Camp, Camp, & Adams, 1991a)

- *Professional Development of Beginning Vocational Teachers: A Guide to Mentoring Beginning Vocational Teachers* (Heath-Camp, Camp, & Adams, 1991b)
- *Professional Development of Beginning Vocational Teachers: A Guide to the Beginning Vocational Teacher Professional Development Program* (Heath-Camp, Camp, & Adams, 1991c)
- *Professional Development of Beginning Vocational Teachers: Local Professional Development Coordinator Guide* (Heath-Camp, Camp, & Adams, 1991d)

Goals and Objectives of the Professional Development Program

It is the overall goal of this induction program to provide a flexible and adaptable mechanism to facilitate a smoother transition into the field of teaching for beginning vocational teachers. More specifically, the objectives of this induction assistance program are the following:

- To provide support services to the beginning teacher through a professional development center, a coordinator who can assist in developing professional competencies, a mentor, and through meaningful feedback from a number of sources.
- To assist the beginning teacher to orient to the school and school system, its operations and procedures, and to the field of teaching.
- To provide resources to the beginning teacher such as a teacher handbook, teaching materials, curriculum, and more.
- To provide an environment for interaction with other new teachers.
- To provide a series of inservice workshops on topics identified through the research and an assessment of the needs of beginning teachers actually participating in the program.
- To assist noncertified teachers to become certified.

- To provide the skills and opportunities for beginning teachers to reflect on their teaching and professional responsibilities.
- To assist beginning teachers in establishing their own goals and objectives.
- To retain promising talented teachers in the field of teaching.

Components of the Model

The model induction assistance program consists of eleven major components, as shown in Figure 8. It is important to understand that the full eleven component model is not sacrosanct. In the ideal situation we would recommend full implementation, but individual school system needs are paramount when implementing any teacher induction assistance program.

Tailoring the program to local needs may mean using parts of the model and omitting other parts. The model is flexible in that regard. At the same time, to provide a complete description and to put each component in context, we will describe the model in its entirety here.

Professional Development Center

The Professional Development Center (PDC) is a service agency physically located within and administered by a Local Education Agency (LEA) or a consortium of LEAs. The PDC is located within a school rather than in the system's administrative offices. The purpose of the Center is to house materials that will be of assistance to both beginning and experienced vocational teachers, and to vocational teachers who are student teaching. A vocational teacher of any level of experience may use the PDC and seek assistance from the local PDC coordinator. The PDC consists of at least an office, secretarial support, telephone, duplicating capability or support, professional development library, and a local professional development coordinator.

For a PDC that operates within a consortium, either a fixed share of the operating costs are determined in advance for each participating system or a fee is charged by the sponsoring system for services provided to participants from other cooperating systems.

In either case, a portion of the operating costs and LPDC salary may be paid by the cooperating teacher education agency. A variety of funding patterns may take place within or among school systems in order to provide support for this center. For the remainder of this section, the term school system will be used to refer to a single school system or a consortium of school systems.

A collaborating university would provide much of the expertise and perhaps part of the funding to operate the PDC. In return, the university can use the services of the PDC to arrange credit courses to be taught in the local system. The most critical characteristics of the PDC are listed in Figure 9.

Local Professional Development Coordinator

The PDC is operated by a Local Professional Development Coordinator (LPDC). It is recommended that the LPDC be a regular vocational faculty member of the local sponsoring school system rather than an administrator within the system or a university faculty member. Also, it is preferable that the LPDC be assigned full-time to the operation of the PDC. At the very least, release time must be provided to an LPDC who cannot be assigned to this task on a full-time basis. The LPDC should not be assigned other routine administrative duties such as bus or lunchroom duty that would require the LPDC to be at a given location on a regular basis, although nonroutine extra duties may be expected. The LPDC should be out in the schools observing beginning teachers, providing inservice training, meeting with administrators, and training and assisting mentor teachers. The LPDC should also have routine hours to be available in the Center to assist teachers.

The LPDC is an accomplished teacher who is interested in assuming exceptional leadership responsibilities for a short period of time. The LPDC is not necessarily moving permanently out of the classroom. The LPDC is trained by the cooperating teacher education agency to provide inservice activities and to organize and operate induction assistance programs. (For a summary of the responsibilities of the LPDC, see Figure 10.)

Role of the Local Professional Development Coordinator

- *Induction Assistance*

  The LPDC has primary responsibility for the organization and conduct of an induction assistance program for beginning vocational teachers. In this role, the

coordinator is responsible for identifying beginning vocational teachers and training experienced and successful teachers to serve as mentors (see Heath-Camp et al., 1991d for content of training). With the assistance of the administration, the coordinator then facilitates the matching of mentors and novices. In addition, the coordinator organizes ongoing professional induction support and assistance seminars for novice teachers. Finally, the LPDC seeks out and coordinates college, state department of education, and professional organization assistance and training opportunities for the beginning vocational teachers.

- *Continuing Development*

  Professional development is a continuing process which begins during preservice, encompasses the induction process, and extends throughout the career of the teacher. The coordinator is responsible for organizing and supervising the continuing professional development activities of vocational teachers of the school system to include ongoing support and training for mentors.

- *University Affiliation*

  The LPDC may be granted adjunct or associate faculty status in a cooperating teacher-education college or university. As a result of this university affiliation, the LPDC would be in a position to organize college credit courses and noncredit workshops offered through the college for teachers and others within the system.

In essence, the LPDC becomes a locally based teacher educator. As such, the coordinator should receive an adjunct appointment to the teacher education faculty as a clinical assistant. In this role, the coordinator organizes both university credit graduate courses and noncredit workshops for local teachers. Ordinarily, the coordinator does not teach such courses, but rather arranges for regular university faculty or other appropriate resource persons to teach courses or workshops in their areas of expertise, with scheduling based on the actual needs of the local teachers and schools. In cases where the LPDC meets the relevant criteria for teaching graduate courses, the LPDC can certainly do so. As a university representative, the coordinator is in a unique position to facilitate collaboration between university faculty and local school faculty. (For more in-depth information on the role of the LPDC, see the forthcoming Heath-Camp et al., 1991d.)

Figure 8

Components of the Induction Assistance Model

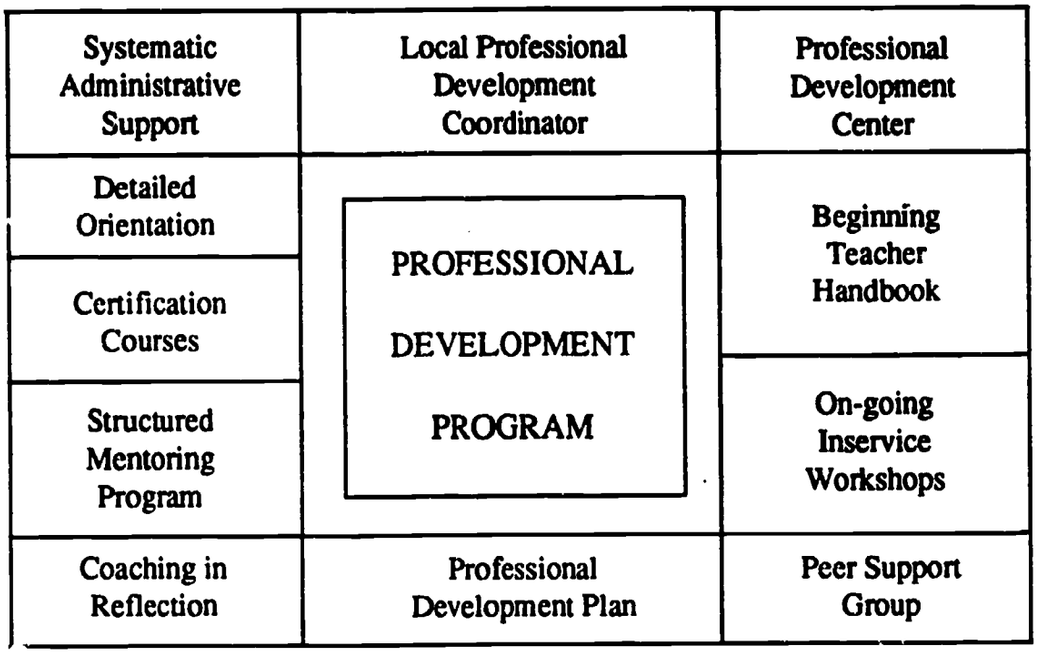


Figure 9

Professional Development Center (PDC)

Located in a Local School

Collaborative Relationship Between School and University

Full-time Coordinator

Joint Funding:

- Local School or Consortium
- University
- State Department

Responsible for Professional Development at Levels of:

- Induction
- Continuing Development

Figure 10

Local Professional Development Coordinator (LPDC)

Office is located in Professional Development Center

Is assigned full-time

Joint faculty appointment between university and school system

Trains mentors

Organizes and supervises induction assistance program:

- Mentors
- Beginning teacher support group
- University faculty
- State department of education
- Professional organizations

Organizes and assists in conduct of continuing professional development program

- Credit courses
- Noncredit workshops
- Local inservice

Training the LPDC

Regardless of his or her level of experience, the coordinator must receive specialized training in the induction assistance role. Skills in the clinical assistance of novice teachers, reflective self-critique, mentoring, and staff development are not inherited human capabilities. The LPDC should be well educated in theory and research as well as in practice. The coordinator should receive extensive training in the above processes through the teacher education program at the college of education prior to assuming responsibility as the LPDC. The required credentials should be both acceptable to the LEA personnel, as well as meet the university standards.

Detailed Orientation

Surprisingly, many beginning vocational teachers are not given adequate orientations to their respective school systems. Not so surprisingly, those who do receive orientations are often given so much information that sensory overload results and much needed knowledge is lost. The LPDC ensures that new vocational teachers are given the information that our research indicates is important from the very outset. To avoid the sensory overload that often results from too much information at once, the coordinator ensures that the orientation does not include information that can wait until later.

Beginning Teachers Handbook

One of the things that repeatedly emerged from our data was the need for a concise handbook that beginning teachers could use for routine information and to guide the induction process. The handbook includes actual information needed by the teacher in order to operate within the system. It also includes checklists of people for the teacher to meet and contacts to make. Such a handbook has been developed based on the research of this project and is currently being used by a group of beginning vocational teachers in the field test of this model. The field test version is titled *Professional Development of Beginning Vocational Teachers: A Beginning Teacher Handbook* (Heath-Camp et al., 1991a).

Structured Mentoring Program

A comprehensive induction assistance program should include many components. One component on which there is almost universal agreement is mentoring. There is a vast literature base on mentors and mentoring. It is clear that to be optimally valuable to the

novice, the mentor must be a supportive, nurturing, guiding person of greater experience. It is also clear that mentoring is not an inherited human ability. Mentors should be trained in their roles, and their training must be something more than a three-hour inservice workshop. Mentors should also be given release time to work with their protégés. In this program, the mentors will be trained and supervised on an ongoing basis by the LPDC. For more detail on the role and selection of mentors, see the guides entitled *Professional Development of Beginning Vocational Teachers: A Guide to Mentoring Beginning Vocational Teachers* and *Professional Development of Beginning Vocational Teachers: Local Professional Development Coordinator Guide* (Heath-Camp et al., 1991b, 1991d).

Beginning Teacher Peer Support Group

One component which will be unusual about this model is the use of a beginning teacher peer support group. The group will consist of only the beginning vocational teachers in the system or systems. It will be scheduled for periodic meetings during school work hours. Its purpose will be for sharing experiences and thoughts among the novices. Care should be taken when the sessions are arranged so that the outcomes result in problem solving and the sharing of positive experiences. Outsiders such as the LPDC will not normally attend the peer support meetings unless invited, but the LPDC will arrange the meetings and solicit topics prior to the sessions.

Systematic Administrator Support

Without active support of local school administrators, including department chairs and other supervisory personnel, the induction assistance program cannot succeed. Workshops should be conducted periodically by the LPDC for principals and other school administrators who have responsibility for beginning teachers. The purposes of the induction assistance program should be explained and the administrators' assistance and support should be sought. Administrators should also be trained to better work with beginning vocational teachers. The criticality of appropriate workloads and class assignments for beginning vocational teachers is one aspect of administrator support that should be emphasized. A second important source of administrative support that should be emphasized is early *positive* feedback followed by regular *constructive* feedback.

Cafeteria Style Series of Ongoing Inservice Workshops

Our research identified an extensive list of beginning vocational teachers' inservice needs. A list of these needs can be found in the guide titled *Professional Development of Beginning Vocational Teachers: Local Professional Development Coordinator Guide* (Heath-Camp et al., 1991d). The priorities for different groups of teachers should be set based on a needs assessment of the specific teachers using this list of needs as a starting point.

Beginning NTEC teachers need immediate help in lesson planning and becoming familiar with the curriculum. Although surprisingly, such teachers often failed to realize these needs in our interviews and focus groups. TEC teachers have more immediate needs in stress management and student discipline strategies. It is important to understand that beginning vocational teachers are unfamiliar with their roles and so may not have a solid perception of what their actual needs are.

There are several important points to be made about these inservice workshops. They should be made available on an as needed basis. They should be short in duration and offered throughout the year. For instance, as opposed to a single three-day inservice in August, perhaps there should be six half-day workshops scattered throughout the year. As in the case of the orientation, our research indicates that sensory overload often occurs when too much information is given to the beginning teacher too early in the first year.

A list of group and individual workshops and the lesson plans and instructional materials for teaching them should be maintained in the PDC and made available as needed. Also, a resource library of detailed professional development materials for teachers should be maintained as a part of the PDC. The beginning teachers being served are guided to specific assistance based on an individual needs assessment whenever possible.

Members of the respective professional teacher organizations have subject specific and program expertise and experiences that beginning teachers of agriculture, business, home economics, marketing, trade and industrial, or technology education lack and need. Under the leadership of the state vocational organization, members of the respective affiliate vocational teacher organizations should be asked to provide that expertise to beginning teachers. As an example, a geographic area meeting of beginning marketing teachers and representatives of the state association of marketing education teachers might be held under

the coordination of the LPDC. In addition, the LPDC and the mentors will have the expertise to provide the training for many of these workshop topics.

Certification Requirements

For alternative certification teachers, it is important that coursework required for certification be available at appropriate times. Coordination of this activity is one responsibility of the LPDC. In addition, certification requirements in some states include demonstrating competency of certain teaching behaviors. Coordination of coaching activities for meeting such requirements is the responsibility of the LPDC.

Reflective Self-Examination

Once the teachers in the qualitative portions of our study began to move past the survival phase (Ryan, 1986), it became clear that they were placing much more emphasis on improving their teaching skills—on using new approaches to delivering instruction. Particularly for those who maintained daily and weekly logs throughout their first two years, there was a repeated emphasis of the value of thinking about what they had done and about how to improve their teaching and other behaviors in their roles as teachers. On numerous occasions, participants indicated that being a part of the study caused them to think about what they were doing and, in effect, to reflect on their teaching and their roles as teachers.

It was also clear in the early stages of their careers, they had little idea where to begin the process. Cruickshank's (1985) mechanistic reflective teaching strategy provides an apparatus that would be useful in a preservice setting to promote self-critique as a means of improving one's teaching skills. It is not so clear that his approach holds promise for the fledgling teacher who is alone and new to the classroom.

The educational literature suggests (Schön, 1983; Grimmett, 1988; Schön, 1988) and our own research supports the importance of reflective self-examination for the beginning teacher of vocational education. Indeed, the participants in our research indicated that the opportunity to think about what they were doing and how it affected them was of great benefit to them. Even though this was an unintended outcome of the research, it was important nonetheless.

Although it had not been anticipated at any early stage in this study, some mechanism appears to be needed to encourage novice teachers to begin the kinds of introspection that are characteristic of teachers who have entered Ryan's (1986) impact stage. Thus, the model will include a component that will provide assistance in that process.

Beginning teachers should be given guidance and encouragement in the processes of reflective self-examination of their behaviors. They should have structured exercises that will assist them in finding the time and the opportunity to participate in reflective self-examination. The LPDC will provide initiative and guidance in this effort.

Professional Development Plan

The purpose of the professional development plan for a beginning teacher is simply to give the beginning teacher an opportunity to think about his or her future and to determine short-term and long-term goals. The plan should not be a cumbersome task, but an opportunity to explore what the beginning teacher hopes to accomplish. The LPDC and the mentor will periodically discuss with the protégé short-term and long-term goals and will assist the beginning teacher in determining the objectives which have to be reached in order to meet those goals. The induction model calls for beginning teachers to set one-year and five-year goals and objectives for their professional career.

A Collaborative Approach

To be successful, any induction assistance program must not only involve local school officials, it must be accepted and supported by them. After all, education in this country is fundamentally a local responsibility. Of just as much importance, the program must have the acceptance and support of the local teachers, department heads, and others in supervisory positions upon whom such a program relies for much of the direct assistance activities.

The state department of education must also be involved. In every state there is a central body with overall responsibility for setting broad direction and coordination of the educational enterprise for the state. Certification is controlled at the state level. Increasingly, beginning teacher assessment is being managed by state departments of education as the states' governors find education a politically important entity.

The university should be involved as well. It is from the university teacher education faculty that knowledge of the research base upon which the program is built must come. Education faculty members at the university level can take a broader perspective of the induction process. They can examine alternative solutions being tried in schools across the state and nation and help evaluate these solutions for possible implementation in other schools. In addition, the university faculty members could collaborate with the LPDC to organize college credit courses and noncredit workshops and provide assistance in areas of specialty to the beginning vocational teachers.

Finally, in a comprehensive induction assistance program for vocational teachers the relevant professional organizations should be involved. In the case of vocational teachers, that means the American Vocational Association (AVA), through its affiliated divisions and its state associations. In addition, the discipline specific professional organizations should accept responsibility for assisting the induction of new teachers into the profession. If these are to be professional organizations that work for the improvement of the profession, what better way than by improving the process by which new teachers are brought into the nation's vocational classrooms? As an example, in Virginia the Virginia Vocational Agriculture Teachers' Association, under the leadership of the Virginia Vocational Association, should become involved in a collaborative induction assistance program for beginning agriculture teachers in the schools of the commonwealth.

Thus, there are four logical partners in a comprehensive induction assistance program (see Figure 11). Officials of the state department of education should provide direction; teacher education faculty members should provide a theoretical and research base; local school administrators and teachers should provide support and direct assistance on a day-to-day basis; and members of the profession, through professional organizations, should provide discipline specific and program specific assistance.

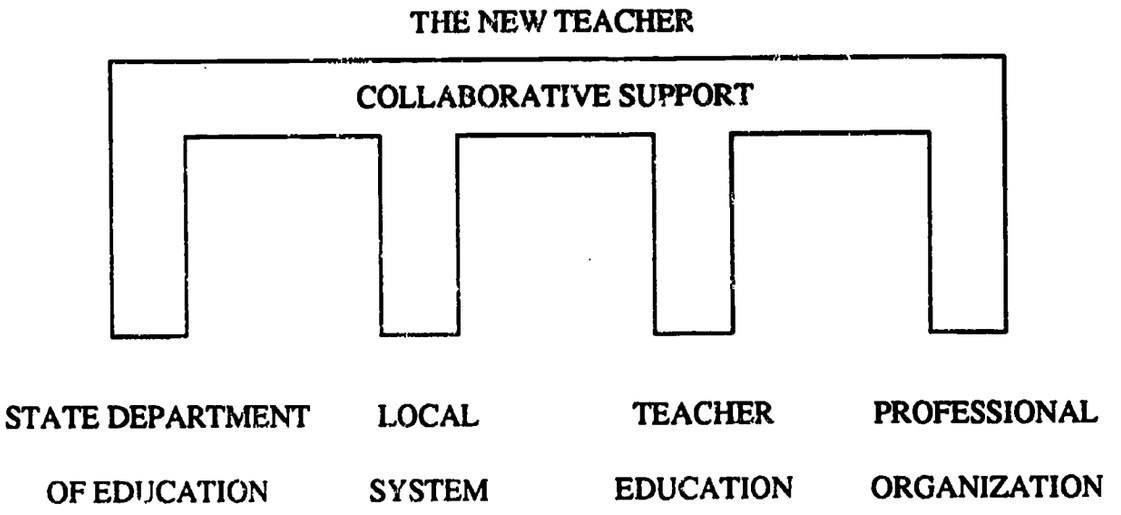
Summary and Conclusions

Summary

Teaching is one of the most difficult of all professions to master. Yet those who are responsible for the education, induction, and continued professional development of teachers have generally done little to assist beginning teachers to successfully negotiate their transition into the profession. Traditionally, very little has been done after graduation by

Figure 11

Collaboration in Vocational Teacher Induction



teacher education programs to provide positive support for novice teachers. That situation has been further confounded for the beginning NTEC vocational teacher who enters the classroom directly from industry without teacher education. With the expansion of alternative certification programs in the last several years, the number of novice teachers facing similar problems has increased.

Organized induction assistance programs can help to make the transition into full-time teaching less traumatic. They can also help in the retention of promising beginning teachers, many of whom leave teaching in frustration after only their first year on the job. Not only can induction support and assistance programs be valuable to novice teachers, but their students will benefit from better instruction, and the experienced teachers who provide the assistance will gain in professional stature, self-confidence, and morale.

One mechanism useful to structuring an induction assistance program would be the creation of a series of professional development programs in local schools. PDCs (Professional Development Centers), managed and operated by full-time teacher educators in residence,could supply this need. These LPDCs (Local Professional Development Coordinators) would be responsible for organizing and managing an induction assistance and continuing professional development program for local teachers.

Four distinct groups should be involved in a collaborative professional development system, with particular emphasis on induction assistance for beginning vocational teachers. The local school system would provide the facilities and part or all of the expense involved, along with much of the actual daily contact with the beginning teachers. The state department of education would provide leadership in initiating the program and in providing part of the travel (and perhaps other) expenses. The teacher education program at the cooperating university would provide the training for participants and the expertise in initiating the program. The professional teacher organizations would provide subject specific expertise and program specific experience.

Conclusion

The ultimate goals of secondary level vocational education in the United States cannot be attained without an effective teaching forc An effective teaching force presupposes the continuing development of existing teachers. Just as importantly, it means the professional development of beginning vocational teachers. Until we put in place an

improved mechanism for the induction of beginning vocational teachers and their continuing professional development, the vision of an empowered professional teaching force will remain an illusion. Clearly an improved, structured induction program alone will not make that vision a reality, but the vision cannot be realized without it.

This project purposes to develop, validate, and field test just such a mechanism. This paper builds on the theoretical base established in the 1988 publication *On Becoming a Teacher: Vocational Education and the Induction Process* (Camp & Heath, 1988). It will be followed in the near future by a publication that details the field tested procedures proposed and briefly outlined in this section.

REFERENCES

Anderson, E. M., & Shannon, A. L. (1988). Toward a conceptualization of mentoring. *Journal of Teacher Education, 39*(1), 38-42.

Ashburn, E. (1986-87, Winter). Current developments in teacher induction programs. *Action in Teacher Education, 8*(4), 41-44.

Bail, J. P. (1989). *Guidelines for teacher mentors in agricultural education.* Ithaca, NY: Cornell University, Department of Education.

Barocas, H., Reichman, W., & Schwebel, A. I. (1983). *Personal adjustment and growth: A life-span approach.* New York, NY: St. Martin's Press.

Bass de Martinez, B. (1988). Political and reform agendas' impact on the supply of black teachers. *Journal of Teacher Education, 39*(1), 10-13.

Belkin, G. S., & Nass, S. (1984). *Psychology of adjustment.* Boston, MA: Allyn and Bacon, Inc.

Bennett, C. A. (1926). *History of manual and industrial education up to 1870.* Peoria, IL: Charles A. Bennett Publishers.

Berliner, D. C. (1985). Laboratory settings and the study of teacher education. *Journal of Teacher Education, 36*(6), 2-8.

Brayfield, A. H., & Roth, H. F. (1951). An index of job satisfaction. *Journal of Applied Psychology, 35*, 307-311.

Briggs, K. C., & Meyers, I. B. (1987). *Meyers-Briggs type indicator.* Palo Alto, CA: Consulting Psychologists Press.

Buehler, C. (1933). *Der menschliche lebenslauf als psychologisches problem.* Leipzig, Germany: Hirzel.

Callahan, J. F., & Clark, L. H. (1988). *Teaching in the middle and secondary schools: Planning for competence* (3rd ed.). New York, NY: Macmillan.

Camp, W. G. (1988a). Supply and demand for teachers of vocational agriculture in the United States - 1986. *Journal of Vocational Education Research, 13*(1), 67-82.

Camp, W. G. (1988b). Professional development of teachers of vocational education. In M. Griggs, R. Jones, & A. Slocum (Eds.), *Vocational teacher education and the Holmes Group* (pp. 145-169). Urbana-Champaign: University of Illinois.

Camp, W. G., & Heath, B. (Eds.). (1988). *On becoming a teacher: Vocational education and the induction process.* Berkeley: National Center for Research in Vocational Education, University of California at Berkeley.

Conant, J. (1963). *The education of American teachers.* New York, NY: McGraw Hill.

Cruickshank, D. R. (1985). Uses and benefits of reflective teaching. *Phi Delta Kappan, 66*(10), 704-706.

Cruickshank, D. R., & Armaline, W. D. (1986). Field experiences in teacher education: Considerations and recommendations. *Journal of Teacher Education, 37*(3), 34-40.

Dewey, J. (1938). *Logic: The theory of inquiry.* New York, NY: Henry Holt.

Dillman, D. A. (1978). *Mail and telephone surveys: The total design method.* New York, NY: John Wiley & Sons, Inc.

Evans, R. N., & Herr, E. L. (1978). *Foundations of vocational education* (2nd ed.). Columbus, OH: Charles E. Merrill Publishing Company.

Feiman-Nemser, S. F. (1983). Learning to teach. In L. S. Shulman & G. Sykes (Eds.), *Handbook of teaching and policy* (pp. 150-170). New York, NY: Longman.

Fenstermacher, G. D., & Berliner, D. C. (1983). *A conceptual framework for the analysis of staff development: A RAND note.* Santa Monica, CA: The RAND Corporation. (ERIC Document Reproduction Service No. ED 244 906)

Finch, C. R., & O'Reilly, P. A. (1988). Trade and industrial teacher education research: Status and prospects. *Journal of Industrial Teacher Education, 26*(1), 21-33.

Fuller, F. F. (1969, March). Concerns of teachers: A developmental conceptualization. *American Educational Research Journal, 6*(2), 207-226.

Fuller, G. R. (1987). The Vermont mentor program. *Vocational Education Journal, 62*(4), 36-37.

Gage, N. L. (1977). *Should research on teaching be generic or specific?* Stanford, CA: Stanford University, Center for Educational Research. (ERIC Document Reproduction Service No. ED 241 504)

Galvez-Hjornevik, C. (1986). Mentoring among teachers: A review of the literature. *Journal of Teacher Education, 37*(1), 6-11.

Ginzberg, E. (1975). The building of a national manpower policy. In M. E. Strong (Ed.), *Developing the nation's work force* (pp. 15-26). Washington, DC: American Vocational Association.

Ginzberg, E., Ginsberg, S. W., Axelrad, S., & Herma, J. L. (1951). *Occupational choice: An approach to a general theory.* New York, NY: Columbia University Press.

Glickman, C. D. (1981). *Developmental supervision: Alternative practices for helping teachers.* Alexandria, VA: Glickman Association for Supervision and Curriculum Development.

Goodlad, J. I. (1984). *A place called schoo*l. New York, NY: McGraw Hill.

Goodlad, J. I. (1988). Studying the education of educators: Values driven inquiry. *Phi Delta Kappan, 70*(2), 104-111.

Goodman, J. (1985). What students learn from early field experiences. A case study and critical analysis. *Journal of Teacher Education, 36*(6), 42-47.

Graham, P. (1989). The other certification: More benefits than risks? *NEA Today, 7*(6), 75-79.

Grimmett, P. P. (1988). The nature of reflection and Schön's conception in perspective. In P. P. Grimmett & G. L. Erickson (Eds.), *Reflection in teacher education* (pp. 5-16). New York, NY: Teachers College Press.

Haberman, M. (1985). Can common sense guide the behavior of beginning teachers? *Teacher Education, 36*(6), 32-35.

Heath-Camp, B., & Camp, W. G. (1990). Induction experiences and needs of beginning vocational teachers without teacher education backgrounds. *Occupational Education Forum, 19*(1), 6-16.

Heath-Camp, B., Camp, W. G., & Adams, E. (1991a). *Professional development of beginning vocational teachers: A beginning teacher handbook* (DRAFT). Blacksburg: Virginia Polytechnic Institute and State University, Division of Vocational and Technical Education.

Heath-Camp, B., Camp, W. G., & Adams, E. (1991b). *Professional development of beginning vocational teachers: A guide to mentoring beginning teachers* (DRAFT). Blacksburg: Virginia Polytechnic Institute and State University, Division of Vocational and Technical Education.

Heath-Camp, B., Camp, W. G., & Adams, E. (1991c). *Professional development of beginning vocational teachers: A guide to the beginning vocational teacher professional development program* (DRAFT). Blacksburg: Virginia Polytechnic Institute and State University, Division of Vocational and Technical Education.

Heath-Camp, B., Camp, W. G., & Adams, E. (1991d). *Professional development of beginning vocational teachers: Local professional development coordinator guide* (DRAFT). Blacksburg: Virginia Polytechnic Institute and State University, Division of Vocational and Technical Education.

Hinkle, D. E., Oliver, J. D., & Hinkle, C. A. (1985). How large should the sample be? Part II—The one-sample case for survey research. *Educational and Psychological Measurement, 45*, 271-280.

Hoffman, J. V., Edwards, S. A., O'Neal, S., Barnes, S., & Paulissen, M. (1986). A study of state mandated beginning teacher programs. *Journal of Teacher Education, 37*(1), 16-21.

Hoffman, M. S. (Ed.). (1989). *World almanac and book of facts*. New York, NY: Pharos Books.

The Holmes Group. (1986). *Tomorrow's teachers: A report of the Holmes Group*. East Lansing, MI: Author.

The Holmes Group. (1988a). Arizona State tightens enrollment, structure, courses, assessment. *The Holmes Group Forum, 3*(1), 15-16.

The Holmes Group. (1988b). Catholic University infuses "reflectivity" into professional core. *The Holmes Group Forum, 3*(1), 12-13.

The Holmes Group. (1988c). Oklahoma U's recommended "second wave" reforms. *The Holmes Group Forum, 2*(2), 16-17.

The Holmes Group. (1988d). Virginia Tech starts Black scholarships and mentor program. *The Holmes Group Forum, 2*(2), 19.

The Holmes Group. (1989). Program innovations on campuses of Holmes Group universities. *The Holmes Group Forum, 3*(2), 10-17.

Howey, K. R. (1988). Why teacher leadership? *Journal of Teacher Education, 39*(1), 28-31.

Huffman, G., & Leak, S. (1986). Beginning teachers' perceptions of mentors. *Journal of Teacher Education, 37*(1), 22-25.

Huling-Austin, L. (1986). What can and cannot reasonably be expected from teacher education programs. *Journal of Teacher Education, 37*(1), 2-5.

Huling-Austin, L. (1988, April). *A synthesis of research on teacher induction programs and practices*. Paper presented at the annual meeting of the American Education Research Association, New Orleans, LA.

Huling-Austin, L., Odell, S. J., Ishler, P., Kay, R. S., & Edelfelt, R. A. (1989). *Assisting the beginning teacher.* Reston, VA: Association of Teacher Educators.

Jensen, M. C. (1986). *Induction programs support new teachers and strengthen their schools.* Eugene: Oregon School Study Council. (ERIC Document Reproduction Service No. ED 273 635)

Johnson, J. M., & Kay, R. (1987, February). *Institutions of higher education involvement in beginning teacher induction.* Paper presented at the annual meeting of the American Association of Colleges of Teacher Education, Washington, DC.

Johnson, J. M. (1988). Mentoring as a component of induction. In W. G. Camp & B. Heath (Eds.), *On becoming a teacher: Vocational education and the induction process* (pp. 23-38). Berkeley: National Center for Research in Vocational Education, Universtiy of California at Berkeley.

Joyce, B., & Clift, R. (1984). The Phoenix agenda: Essential reform of teacher education. *Educational Researcher, 13*(4), 5-18.

Lamar, C. F., Gyuro, S. J., Burkett, L. A., & Gray, K. E. (1978). An overview of comprehensive planning. In C. S. Lamar (Ed.), *Comprehensive planning for vocational education: A guide for administrators* (pp. 13-47). Washington, DC: American Vocational Association.

Leatherman, C. (1988, April 20). Reforms in education of school teachers face tough new challenges. *The Chronicle of Higher Education*, pp. 1, 30.

Levy, J. (1987). *A study of teachers in Virginia.* Paper presented at the World Assembly of the International Council on Education for Teaching, Eindhover, Netherlands. (ERIC Document Reproduction Service No. ED 187 799)

Lortie, D. (1975). *Schoolteacher.* Chicago, IL: University of Chicago Press.

Marso, R. N., & Pigge, F. L. (1987). Differences between self-perceived job expectations and job realities of beginning teachers. *Journal of Teacher Education, 38*(6), 53-56.

McNelis, M. C., & Etheridge, C. P. (1987, November). *Comparative analysis of three models of induction internship*. Paper presented at the annual meeting of the Mid-South Education Research Association, Mobile, AL. (ERIC Document Reproduction Service No. ED 291 726)

Meister, G. (1987). *Current practices in new teacher development in Maryland 1986-87.* Washington, DC: Office of Educational Research and Improvement. (ERIC Document Reproduction Service No. ED 291 711)

Meyers, R. (1991, May). Personal Communication. Professor of Statistics and Head, Statistical Consulting Laboratory, Virginia Polytechnic Institute and State University, Blacksburg.

Miller, L. E., & Smith, K. L. (1983, September-October). Handling nonresponse issues. *Journal of Extension, 26*, 45-50.

Monaghan, P. (1989, March 15). Healing the fractured movement for education reform. *The Chronicle of Higher Education*, p. A3.

Morgan, D. L. (1988). *Focus groups as qualitative research* (Sage University Paper series on Qualitative Research Methods, Vol. 16). Newbury Park, CA: Sage Publications.

Observing teachers by satellite. (1988, May 4). *The Chronicle of Higher Education*, p. A19.

Odell, S. J. (1986). Induction support of new teachers: A functional approach. *Journal of Teacher Education, 37*(1), 26-29.

Olson, L., & Rodman, B. (1988, June 22). In the urban crucible. *Education Week*, pp. 27-33.

Osipow, S. H. (1973). *Theories of career development.* Englewood Cliffs, NJ: Prentice-Hall, Inc.

Pelsma, D. M., Richard, G. V., Harrignton, R. G., & Burry, J. M. (1989, January). The quality of teacher work life survey: A measure of teacher stress and job satisfaction. *Measurement and Evaluation in Counseling and Development, 21*(4), 165-176.

Pratzner, F. C. (1988a). Vocational teacher education and the Holmes Group: Selected highlights from a survey of preservice and inservice preparation. In M. Griggs, R. Jones, & A. Slocum (Eds.), *Vocational teacher education and the Holmes Group* (pp. 56-74). Urbana-Champaign: University of Illinois.

Pratzner, F. C. (1988b). Vocational teacher education: Changes and challenges. *Journal of Industrial Teacher Education, 26*(1), 50.

Reyes, D. J., Alter, G. T., & Smith, R. B. (1986). *Applying teacher effectiveness research in the classroom.* DeKalb: Northern Illinois University. (ERIC Document Reproduction Service No. ED 274 105)

Rodman, B. (1987, April 8). Teacher recruitment, selection procedures outdated, study concludes. *Education Week*, pp. 1, 4.

Rodman, B. (1988, June 22). A bold step the ivory tower. *Education Week*, pp. 21, 23.

Roper, S., Hitz, R., & Brim, B. (1985). *Developing induction programs.* Ashland: Southern Oregon State University. (ERIC Document Reproduction Service No. ED 265 036)

Ryan, K. (1982, March). *Why bother ... induction?* Paper presented at the annual meeting of the American Educational Research Association, New York, NY.

Ryan, K. (1986). *The induction of new teachers.* Bloomington, IN: Phi Delta Kappa Education Foundation.

Schön, D. A. (1983). *The reflective practitioner.* New York, NY: Basic Books.

Schön, D. A. (1988). Coaching reflective teaching. In P. P. Grimmett & G. L. Erickson (Eds.), *Reflection in teacher education* (pp. 19-30). New York, NY: Teachers College Press.

Scott, J. L. (1988). Induction needs of beginning vocational teachers without teacher education degrees. In W. G. Camp & B. Heath (Eds.), *On becoming a teacher: Vocational education and the induction process* (pp. 69-90). Berkeley: National Center for Research in Vocational Education, University of California at Berkeley.

Sedlak, M. W. (1987). Tomorrow's teachers: The essential arguments of the Holmes Group report. *Teachers College Record, 88*(3), 314-325.

Shulman, L. S. (1987a, February). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review, 57*(1), 1-22.

Shulman, L. S. (1987b, November). Learning to teach. *American Association of Higher Education Bulletin*, pp. 5-9.

Spradley, J. P. (1979). *The ethnographic interview.* New York, NY: Holt, Rinehart & Winston.

State Research Associates. (1988, June). *Education reform in rural Appalachia, 1982-1987.* Washington, DC: Appalachian Regional Commission.

Steffy, B. E. (1989). *Career stages of classroom teachers.* Lancaster, PA: Technomic Publishing Co., Inc.

Super, D. E., Crites, J. O., Hummel, R. C., Moser, H. P., Overstreet, P. L., & Warnath, C. F. (1957). *Vocational development: A framework for research.* New York, NY: Teachers College Press.

A survey of two years of action by 50 states and DC to reform the education of teachers. (1988, April 20). *The Chronicle of Higher Education*, pp. A31-A32, A36

Talbert, B. A. (1990). *The first year of an agriculture teacher: A case study of three beginning teachers.* Unpublished master's thesis, Virginia Polytechnic Institute and State University, Blacksburg.

Thies-Sprinthall, L. (1986). A collaborative approach for mentor training: A working model. *Journal of Teacher Education, 37*(6), 13-20.

Thies-Sprinthall, L., & Sprinthall, N. A. (1987, April). *Experienced teachers: Agents for revitalization and renewal as mentors and teacher educators.* Paper presented at the annual meeting of the American Educational Research Association, Washington, DC. (ERIC Document Reproduction Service No. ED 284 861)

Tushnet, N. C. (1991, April). *The policy environment for new teacher support and assessment in California.* Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.

Uhler, S. (1987). *Alternative paths to entry: New Jersey and elsewhere.* Washington, DC: American Educational Research Association. (ERIC Document Reproduction Service No. ED 287 204)

Underhill, B., & Brown, C. (1988). *Roanoke City/Virginia Tech support program for first year middle school and high school mathematics teachers.* Paper presented at College of Education Research Day, Virginia Polytechnic Institute and State University, Blacksburg.

U.S. roll call: Alternative certification for school teachers. (1988, September 1). *The Chronicle of Higher Education*, p. 74.

Veenman, S. (1984). Perceived problems of beginning teachers. *Review of Educational Research, 54*(2), 143-178.

Waters, R. G. (1985). *An evaluation of the beginning teacher supervision program conducted by the Department of Agricultural and Extension Education at the Pennsylvania State University.* University Park: Pennsylvania State University.

Waters, R. G. (1988). Overview of beginning-teacher induction process. In W. G. Camp & B. Heath (Eds.), *On becoming a teacher: Vocational education and the induction process* (pp. 7-21). Berkeley: National Center for Research in Vocational Education, University of California at Berkeley.

Watkins, B. T. (1989, March 1). Teacher educators told to stress both pedagogy and subject matter. *The Chronicle of Higher Education*, pp. A11-A16.

Whitfield, T. (1981). *Responsive staff development and continuing education for rural school districts.* Paper presented at the annual meeting of the American Association of Colleges of Teacher Education, Detroit, MI. (ERIC Document Reproduction Service No. ED 199 234)

Wildman, J. A., & Niles, T. M. (1987a). Essentials of professional growth. *Educational Leadership, 44*(5), 4-10.

Wildman, J. A., & Niles, T. M. (1987b). *Wanting teachers to be reflective: Tensions between the abstractions and the realities.* Unpublished paper, Virginia Polytechnic Institute and State University, Blacksburg.

Wildman, J. A., Niles, T. M., Magliaro, S. G., McLaughlin, A. A., & Drill, L. G. (1987, April). *Virginia's colleague teacher project: Focus on beginning teachers' adaptation to teaching.* Paper presented at the annual meeting of the American Educational Research Association, Washington, DC. (ERIC Document Reproduction Service No. ED 199 234)

Willett, H. I., Jr. (1988, June). *Virginia teacher education study 1986-1988: Executive summary.* Virginia Beach, VA: Author.

Wise, A. E. (1986). Graduate teacher education and teacher professionalism. *Journal of Teacher Education, 37*(5), 36.

Wise, A. E. (1988, November 16). If we are ever to "professionalize" school teaching, universities must redesign education programs. *The Chronicle of Higher Education*, pp. B1-B2.

Yarger, J. J. (1982, March). *Summary of analyses for lack of recognition of the importance of induction in U. S. teacher education.* Paper presented at the annual meeting of the American Education Research Association, New York, NY.

Yin, R. K. (1989). *Case study research design and methods.* Newbury Park, CA: Sage Publications.

Zimpher, N. L. (1988). A design for the professional development of teacher leaders. *Journal of Teacher Education, 39*(1), 53-60.

BIBLIOGRAPHY

Alberty, B., Neujhar, J., & Weber, L. (1981). *Use and setting: Development in a teacher center.* Grand Forks: North Dakota Study Group. (ERIC Document Reproduction Service No. ED 272 491)

The American Assembly. (1989). *The future of social welfare in America.* Harriman, NY: Columbia University.

American Association of Colleges for Teacher Education (AACTE). (1989). *Alternative preparation: A policy statement.* Washington, DC: Author.

Ball, D., & McDiarmid, B. (1987). Understanding how teachers' knowledge changes. *Colloquy, 1*(1), 9-13.

Barr, R. D. (1987). Reform of teacher education and the problem of quality assurance. *Journal of Teacher Education, 37*(5), 45-51.

Bell, T. H. (1988). Parting words of the 13th man. *Phi Delta Kappan, 69*(6), 400-407.

Berg, M., Murphy, D., Malien, I., & Nagel, A. (1988, April). *Enhancing university and school district relations through the collaborative supervision of student teachers.* Paper presented at the meeting of the American Educational Research Association, New Orleans, LA.

Berman, P., & McLaughlin, M. W. (1978). *Federal programs supporting educational change: Implementing and sustaining innovations* (Vol. VIII). Santa Monica, CA: The RAND Corporation.

Blankenbaker, E. K. (1988). Building new relationships to enhance teacher education. In M. Griggs, R. Jones, & A. Slocum (Eds.), *Vocational teacher education and the Holmes Group* (pp. 127-145). Urbana-Champaign: University of Illinois.

Bouchie, M. E. (1987). *A model university-school district-teacher education center alternative teacher training program for preparing and certifying nondegree vocational teachers.* Paper presented at the Council on Education for Teaching, Eindhoven, Netherlands. (ERIC Document Reproduction Service No. ED 284 861)

Boyd, W. B. (1987). *Athens or Atlantis? The college reform movement*. East Lansing, MI: The Holmes Group.

Bullough, R. V. (1989). *First year teacher: A case study*. New York, NY: Teachers College Press.

Camp, W. G., & Heath, B. (1989, December). *Induction detractors of beginning vocational teachers with and without teacher education*. Paper presented at the annual meeting of the American Vocational Education Research Association, Orlando, FL.

Carnegie Forum on Education and the Economy. (1986). *A nation prepared: Teachers for the 21st century*. New York, NY: Carnegie Corporation.

Carnegie report urges a major effort to counter failure of city schools. (1988, March 23). *The Chronicle of Higher Education*, p. A3.

Cavazos tackles teacher education. (1990, March 5). *Vocational Education Weekly*, 2(41), p. 4.

Collay, M. (1989, March). *Diverse contexts in teaching and learning: Implications for student-teaching programs*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.

Cooperman, S., & Nedel, S. (1989, April). The academy: New Jersey improves professional growth opportunities for teachers. *Phi Delta Kappan, 70*(8), 619-622.

Corcoran, E., & Andrew, M. (1988). A full year internship: An example of school university collaboration. *Journal of Teacher Education, 39*(3), 17-22.

Crocker, R. K. (1986, June). *What research says to the teacher: Classroom processes and student outcomes*. Paper presented at the Canadian Society for the Study of Education annual meeting, Winnipeg, Manitoba.

Crunkilton, J. (1987). Thinking out loud about this process we call teaching. *The Journal of the American Association of Teacher Educators in Agriculture, 29*(1), 2-10.

Cuban, L. (1987). The Holmes Group report: Why reach exceeds grasp. *Teachers College Record, 88*(3), 348-353.

Darling-Hammond, L. (1984). *Beyond the commission reports: The coming crisis in teaching* (R-3177-RC). Santa Monica, CA: The RAND Corporation.

Daviss, B. (1987, March). The fearless for Easter. *Northwest*, pp. 15-17.

Devaney, K. (Ed.). (1988). *The Holmes Group Forum, 3*(1).

Devaney, K. (Ed.). (1989). *The Holmes Group Forum, 3*(2).

Driscoll, A., & Kuhlmann, J. L. (1989, March). *Socialization of beginning teachers: Connections with pre-service programs.* Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.

Elbaz, F. (1983). *Teacher thinking: A study of practical knowledge.* New York, NY: Nicholas Publishing Company.

Engle, J. B. (1989). Preserving quality: Teacher training from a liberal arts perspective. *Phi Delta Kappan, 70*(6), 475-477.

Etheridge, C. P. (1989). Independent action: Case studies of its role in beginning teachers' induction In J. Reinhartz (Ed.), *Teacher induction* (pp. 61-73). Washington, DC: National Education Association.

Feiman-Nemser, S. (1989, August). *Teacher preparation: Structural and conceptual alternatives.* East Lansing, MI: National Center for Research on Teacher Education.

Feiman-Nemser, S., & Floden, R. E. (1986). The cultures of teaching. In M. C. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed.) (pp. 505-526). New York, NY: Macmillan Publishing Company.

Feiman-Nemser, S., McDiermid, G. W., Melnick, S. L., & Park, M. (1989, July). *Changing beginning teachers' conceptions: A description of an introductory teacher education course.* East Lansing, MI: National Center for Research on Teacher Education. (ERIC Document Reproduction Service No. ED 270 442)

Fenstermacher, G. D. (1979). A philosophical consideration of recent research on teacher effectiveness. *Review of Research in Education, 6*, 157-185.

Finn, C. E., Jr. (1988). What ails education research. *Educational Researcher, 17*(1), 5-8.

Fox, S. M., & Singletary, T. J. (1986). Deductions about supportive induction. *Journal of Teacher Education, 37*(1), 12-15.

Frustrated business leaders ready to tackle school reform. (1989, February 16). *Vocational Training News*, pp. 1-2.

Frye, H. (1988). The principal's role in teacher preparation. *Journal of Teacher Education, 39*(6), 54-58.

Fuqua, B. J. (1988, June 22). Here I was, a new teacher. *Educational Week*, pp. 17-18.

Gagne, R. M. (1965). *The conditions of learning*. New York, NY: Holt, Rinehart & Winston.

Gehrke, N. J. (1988). On preserving the essence of mentoring as one form of teacher leadership. *Journal of Teacher Education, 39*(1), 43-45.

Godly, L. B. (1986-87, Winter). The teacher consultant role: Impact on the profession. *Action in Teacher Education, 8*(4), 65-73.

Goodlad, J. I., Klein, M. R., & Associates. (1974). *Looking behind the classroom door.* Belmont, CA: Wadsworth Publishing Company, Inc.

Greenburg, J. D., & Erly, M. C. (1989). School-building-level variables and the duction of new teachers. In J. Reinholtz (Ed.), *Teacher induction* (pp. 34-41). Washington, DC: National Education Association.

Griffin, G. A. (1985). Teacher induction: Research issues. *Teacher Education, 36*(1), 42-46.

Griggs, M., Jones, R., & Slocum, A. (Eds.). (1988). *Vocational teacher education and the Holmes Group*. Urbana-Champaign: University of Illinois.

Guyton, E., & Farokhi, E. (1987). Relationships among academic performance, basic skills, subject matter knowledge, and teaching skills of teacher education graduates. *Journal of Teacher Education, 38*(5), 37-42.

Hackett, G. (1988, April). *An analysis of one institutional approach to mentoring*. Paper presented at American Educational Research Association, New Oreleans, LA.

Hard, S. M. (1989). The principal as teacher educator. *Journal of Teacher Education, 39*(3), 8-12.

Haring-Hidore, M. (1988, April). *An organizational approach to mentoring: AERA's division E program*. Paper presented at the meeting of the American Educational Research Association, New Orleans, LA.

Hawk, P. (1986-87, Winter). Beginning teacher programs: Benefits for the experienced educator. *Action In Teacher Education, 8*(4), 59-63.

Hawkes, R. R. (1988). A model of school/university cooperation that works. *Phi Delta Kappan, 69*(8), 614-615.

Healy, C. C. (1988, April). *Mentoring relationships: Defining them from a developmental perspective*. Paper presented at the American Educational Research Association, New Orleans, LA.

Heath-Camp, B., Camp, W. G., & Adams-Casmus, E. (1990, December). *The induction of marketing teachers: Case studies*. Paper presented at the annual meeting of the Marketing Education Division of the American Vocational Association, Cincinnati, OH.

Hegler, K., & Dudley, R. (1987). Beginning teacher induction: A progress report. *Journal of Teacher Education, 38*(1), 53-56.

Henry, M. A. (1989). Multiple support: A promising strategy for effective teacher induction. In J. Reinhartz (Ed.), *Teacher induction* (pp. 74-80). Washington, DC: National Education Association.

Hinkle, D. E., Wiersma, W., & Jurs, S. G. (1979). *Applied statistics for the behavioral sciences*. Chicago, IL: Rand McNally College Publishing Company.

The Holmes Group. (1988a). Descriptions of new programs on Holmes Group member campuses. *The Holmes Group Forum, 2*(2), 12-19.

The Holmes Group. (1988b). Work in progress on campuses of Holmes Group universities. *The Holmes Group Forum, 3*(1), 10-17.

The Holmes Group. (1989). Actions to implement Holmes agenda underway on member campuses. *The Holmes Group Forum, 3*(3), 10-18.

Huling, L., & Hall, G. E. (1982). Factors to be considered in the preparation of secondary school teachers. *Journal of Teacher Education, 33*(1), 7-12.

Huling-Austin, L. (1989). A synthesis of research on teacher induction programs and practices. In J. Reinhartz (Ed.), *Teacher induction* (pp. 13-33). Washington, DC: National Education Association.

Huling-Austin, L., Putman, S., & Galvez-Hjornevik, C. (1985). *Final report: Model teacher induction project study findings* (R & D Report No. 7212). Austin: The University of Texas at Austin.

Hummel, T. J., & Strom, S. M. (1987). The relationship between teaching experience and satisfaction with teacher preparation: A summary of three surveys. *Journal of Teacher Education, 38*(5), 28-36.

Imig, D. G. (1988, January/February). Outrage in Texas. *AACTE Briefs, 9*(1), p. 2.

Jacques, B., & Haller, C. (1981). *Teacher center feasibility study*. Hartford: Connecticut State Department of Education. (ERIC Document Reproduction Service No. ED 206 932)

Jaschik, S. (1989, March 15). Teacher educators and legislators in Texas battle over curriculum requirements. *The Chronicle of Higher Education*, p. A27.

Johnson, D., Lindhardt, R., & Stewart, R. (1989). Priorities of first and second year teachers of agriculture in Missouri. *Journal of Agricultural Education, 30*(2), 55-61.

Johnston, J. M. (1986-87, Winter). Selected annotated bibliography. *Action in Teacher Education, 8*(4), 81-85.

Johnston, J. M. (1988, February). *The knowledge base for teacher induction: A selected annotated bibliography.* Paper presented at the annual meeting of the Association of Teacher Educators, San Diego, CA.

Johnston, J. M. (1989) Teacher induction: An annotated bibliography. In J. Reinhartz (Ed.), *Teacher induction* (pp. 114-127). Washington, DC: National Education Association.

Jones, R., & Slocum, A. (1988). Possibilities and realities for appropriate reflective practice in vocational teacher education. In M. Griggs, R. Jones, & A. Slocum (Eds.), *Vocational teacher education and the Holmes Group* (pp. 75-93). Urbana-Champaign: University of Illinois.

Kentucky Education Association—Appalachian Educational Laboratory, Inc. (1986, November). *Keys to an effective internship: A guide for Kentucky beginning teachers.* Charleston, WV: Author.

Kilgore, A. M., & Kozisek, J. A. (1989). The effects of a planned induction program on first-year teachers: A research report. In J. Reinhartz (Ed.), *Teacher induction* (pp. 94-113). Washington, DC: National Education Association. (ERIC Document Reproduction Service No. ED 291 726)

Kirts, C. (1981). Student teaching management in agricultural education. *The Journal of the American Association of Teacher Educators in Agriculture, 22*(1), 41-47.

Klinzing, H. G., Zifreund, W., & Klizing-Eurich, G. (1988, April). *Teaching laboratories in West Germany. Historical background and current status.* Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

Lampert, M. (1985). How do teachers manage to teach? Perspectives on problems in practice. *Harvard Educational Review, 55*(2), 178-194.

Ligana, J. (1970). *What happens to the attitudes of beginning teachers?* Danville, IL: The Interstate Publishers.

Little, J. W. (1982). Norms of collegiality and experimentation: Workplace considerations of school success. *Educational Research Journal, 19*(3), 325-340.

Love, R. (1984, January). *Field-based teacher education experiences: Design for success.* Paper presented at the annual meeting of the Association of Teacher Educators, New Orleans, LA. (ERIC Document Reproduction Service No. ED 242 949)

Lynch, R. L., Schmidt, B. J., & Asche, G. M. (1988). Determining priorities for vocational education research through use of the nominal group technique. *Journal of Vocational and Technical Education, 5*(1), 13-27.

Madaus, G. F., & Pullin, D. (1987, September). Teacher certification tests: Do they really measure what we need to know? *Phi Delta Kappan, 69*(1), 31-38.

Maeroff, G. I. (1988). A blueprint for empowering teachers. *Phi Delta Kappan, 69*(7), 473-477.

Mangan, K. S. (1990, May 9). Growing number of teachers beginning their careers without the traditional education-school training. *The Chronicle of Higher Education*, pp. A13-A19.

Mann, K. (1988). Under represented minorities and teacher education reform. In M. Griggs, R. Jones, & A. Slocum (Eds.), *Vocational teacher education and the Holmes Group* (pp. 170-180). Urbana-Champaign: University of Illinois.

Maryland State Department of Education. (1987). *Perspectives on teacher induction: A review of the literature and promising program models.* Baltimore, MD: Author.

Maslow, A. H. (1968). *Toward a psychology of being.* Princeton, NJ: D. Van Norstrand.

McClain, C. R., & Horner, J. T. (1988, February). *Vocational agriculture teacher personality and effective teaching: Is there a relationship?* Paper presented at the Central States Research Conference in Agricultural Education, Chicago, IL.

McNeil, L. M. (1988). Contradictions of reform. *Phi Delta Kappan, 69*(7), 478-485.

Mertens, S., & Yarger, S. J. (1988). Teaching as a profession: Leadership, empowerment, and involvement. *Teacher Education, 38*(1), 32-37.

Meyer, A. E. (1957). *An educational history of the American people.* New York, NY: McGraw Hill.

Miller, L. M., Thomson, W. A., & Roush, R. E. (1989). Mentorships and the perceived educational payoffs. *Phi Delta Kappan, 70*(6), 465-467.

Mireau, L. (1986). *Identifying and using effective teaching behaviors.* Alberta, Canada: Alberta Education. (ERIC Document Reproduction Service No. ED 273 622)

Moore, G. E., & Camp, W. G. (1979). Why vocational agriculture teachers leave the profession. *The Journal of the American Association of Teacher Educators in Agriculture, 20*(3), 11-18.

Moss, J. (1988). The purposes of research in vocational education. *Journal of Industrial Teacher Education, 26*(1), 82-85.

Mundt, J. (1991). The induction year—A naturalistic study of beginning secondary teachers of agriculture in Idaho. *Journal of Agricultural Education, 32*(1), 18-23.

National Assessment of Vocational Education. (1988a). *First interim report from the National Assessment of Vocational Education.* Washington, DC: U.S. Department of Education.

National Assessment of Vocational Education. (1988b). *Second interim report from the National Assessment of Vocational Education.* Washington, DC: U.S. Department of Education.

National Center for Research in Vocational Education. (n.d.). *Practice application brief: Effective teaching in vocational education.* Columbus: Author, Ohio State University.

National Commission on Excellence in Education. (1983). *A nation at risk: The imperative for educational reform.* Washington, DC: Author.

National Commission on Secondary Vocational Education. (1984). *The unfinished agenda: The role of vocational education in the high school.* Columbus: National Center for Research in Vocational Education, Ohio State University.

National Council for Accreditation of Teacher Education. (n.d.). *NCATE to re-examine public institutions in Texas.* Washington, DC: Author.

Nelson, R., & Tozer, S. (1988). The implications of reform initiatives on vocational teacher education. In M. Griggs, R. Jones, & A. Slocum (Eds.), *Vocational teacher education and the Holmes Group* (pp. 112-126). Urbana-Champaign: University of Illinois.

Observing teachers by satellite. (1988, May 4). *The Chronicle of Higher Education,* p. A19.

Odell, S. J. (1989). Characteristics of beginning teachers in an induction context. In J. Reinhartz (Ed.), *Teacher induction* (pp. 42-51). Washington, DC: National Education Association.

Olson, L. (1988, June 22). The unbalanced equation. *Education Week,* pp. 19-20, 22-23, 26.

Ornstein, A. C. (1985). Research on teaching: Issues and trends. *Journal of Teacher Education, 36*(6), 27-31.

Perlberg, A. (1988, April). *From microteaching to teaching learning laboratories - T.L.L.: An international perspective.* Paper presented at the meeting of the American Educational Research Association, New Orleans, LA.

Peters, J. L., & Moore, G. E. (1980). *A comparison of two methods of providing laboratory teaching experiences for student teachers in agricultural education.* (ERIC Document Reproduction Service No. ED 210 468)

Phelps, L.A., & Cole, N. (1988). Reconsideration of vocational and technical education in high schools. In M. Griggs, R. Jones, & A. Slocum (Eds.), *Vocational teacher education and the Holmes Group* (pp. 3-19). Urbana-Champaign: University of Illinois.

Pratzner, F. C. (1987, December). *Vocational teacher education: Selected highlights from a survey of preservice and inservice education.* Paper presented at the annual meeting of the American Vocational Association, Las Vegas, NV.

Pucel, D. G., Jensrod, Q., & Persico, J. (1987). *A career follow-up of non-degreed postsecondary and adult vocational teachers* (Tech. Rep.). St. Paul: University of Minnesota, Research and Development Center for Vocational Education, Department of Vocational and Technical Education.

Rauth, M., & Bowers, G. R. (1986). Reactions to induction articles. *Journal of Teacher Education, 37*(1), 38-41.

Reinhartz, J. (Ed.). (1989). *Teacher induction.* Washington, DC: National Education Association.

Reinhartz, J. (1989). The teacher induction process: Preserving the old and welcoming the new. In J. Reinhartz (Ed.), *Teacher induction* (pp. 4-12). Washington, DC: National Education Association.

Rogus, J. F. (1988). Teacher leader programming: Theoretical underpinnings. *Journal of Teacher Education, 39*(1), 46-52.

Rossetto, C. R., & Grosenick, J. K. (1987). Effects of collaborative teacher education: Follow-up of graduates of a teacher induction program. *Journal of Teacher Education, 38*(2), 50-52.

Rowley, J. (1988). The teacher as leader and teacher educator. *Journal of Teacher Education, 34*(3), 13-16.

Sarason, S. B. (1971). *The culture of the school and the problem of change.* Boston, MA: Allyn and Bacon.

Schein, E. (1978). *Career dynamics: Matching individual and organizational needs.* Reading, MA: Addison-Wesley.

Shanker, A. (1987). Tomorrow's teachers. *Teachers College Record, 88*(3), 423-429.

Sheppard, R. (1981). *A study of the trade and industrial teacher education delivery systems used in the United States.* Unpublished doctoral dissertation, Oklahoma State University, Stillwater.

Simms, R. L., & Miller, J. R. (1988, November-December). Assault on teacher education in Texas. *Journal of Teacher Education, 39*(6), 17-20.

Smith, D. R. (n.d.). *The impact of clinical feedback using the North Carolina teaching performance appraisal instrument on the teaching performance of student teachers.* Unpublished manuscript, Durham, NC. (ERIC Document Reproduction Service No. ED 199 234)

Spradley, J. P. (1980). *Participant observation.* New York, NY: Holt, Rinehart & Winston.

Stephan, W. G. (1987). The contact hypothesis in intergroup relations. In C. Hendrick (Ed.), *Group processes and intergroup relations* (pp. 13-40). Newbury Park, CA: Sage Publications.

Sykes, G. (1989, January). National certification for teachers: A dialog. *NEA Today, 7*(6), 6-12.

Thomas, S. (1988, April). *Professional socialization: Toward a redefinition of mentoring.* Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

Trumbull, D. J. (1986). Teacher envisioning: A foundation for artistry. *Teaching and Teacher Education, 2*(2), 139-144.

Varah, L. J., Theune, W. S., & Parker, L. (1986). Beginning teachers: Sink or swim. *Journal of Teacher Education, 37*(1), 30-34.

Virginia Department of Education. (n.d.). *Beginning Teacher Assistance Program.* Richmond: Author.

Waters, L. B., & Bernhardt, V. L. (1989). Providing effective induction program support teachers: It's not as easy as it looks. In J. Reinhartz (Ed.), *Teacher induction* (pp. 148-169). Washington, DC: National Education Association.

Watkins, B. T. (1989, March 22). Board has formed policies on knowledge and skills for school teachers; evaluation process is uncertain. *The Chronicle of Higher Education*, pp. A11-A12.

Watkins, B. T. (1989, July 26). National Teaching-Standards Board takes initial step toward certification, sets qualification guidelines? *The Chronicle of Higher Education*, pp. 15-18.

Watkins, B. T. (1990, February 7). Education-school reform group set to endorse plan that would alter teacher training. *The Chronicle of Higher Education*, pp. 15-20.

Weber, J. (1988). A national look at the preparation of vocational teachers to work with at-risk students. In M. Griggs, R. Jones, & A. Slocum (Eds.), *Vocational teacher education and the Holmes Group* (pp. 20-38). Urbana-Champaign: University of Illinois.

Weber, J. M., & Puelo, N. F. (1988). A comparison of the instructional approaches used in secondary vocational and non-vocational classrooms. *The Journal of Vocational Education Research, 13*(4), 49-70.

Wildman, T. M., Niles, J. A., Magliaro, S. G., & McLaughlin, R. A. (1989). Teaching and learning to teach: The two roles of beginning teachers. *The Elementary School Journal, 4*(89), 471-493.

William T. Grant Foundation, Commission on Work, Family, and Citizenship. (1988). *The forgotten half: Non-college youth in America.* Washington, DC: Author.

Wright, C. A., & Wright, S. D. (1987). The role of mentors in the career development of young professionals. *Family Relations, 36*(2), 204-208.

Zaharias, J. A., & Frew, T. W. (1987). Teacher induction: An analysis of one successful program. *Action in Teacher Education, 9*(1), 49-55.

Zahorik, J. A. (1986). Acquiring teaching skills. *Journal of Teacher Education, 37*(2), 21-25.

Zeichner, K., & Gore J. (1989). *Teacher socialization.* East Lansing, MI: National Center for Research on Teacher Education.

Zumwalt, K. K. (1982). Research on teaching: Policy implications for teacher education. In A. Lieberman & M. W. McLaughlin (Eds.), *Policy making in education* (pp. 215-248). Chicago, IL: University of Chicago Press.

Appendix A: Tables Compiled from Nominal Group Technique Sessions

Table A-1

Most Important Problems as Identified by Vocational Teachers at the Beginning of Their First Year

NTEC List*

Highest Ranked Problems

- Lack of orientation. Lack of clarity concerning job expectations, lack of familiarity with forms, lack of familiarity with the entire program, and difficulty becoming accustomed to school policies.
- Student behavior, student apathy, and keeping students on tasks.
- A dumping ground mentality.

Mid-Ranked Problems

- Instruction of several areas at one time. Difficulty developing lesson plans for several levels in one class.
- Lack of preparation to handle discipline problems. Didn't know what level of punishment to give to fit an offense.
- Lack of time to devote to curriculum learning and development.
- Problems allocating instructional time.
- Student misbehavior keeping excellent students from learning.
- Lack of time to meet job responsibilities.

Lowest Ranked Problems

- Students who require remedial instruction in the basics.
- Class size/instructional ratio.
- Lack of secretarial support.
- Lack of curriculum in my area of responsibility.
- Keeping first year students interested in the basics of the course.
- Keeping a positive attitude and always presenting lessons in an enthusiastic manner.

* Compilation from the top ten problems of groups A, G, and I.

Table A-2

Most Important Problems as Identified by Vocational Teachers at the Beginning of Their First Year

TEC List*

Highest Ranked Problems

- Time allocation problems. Too many responsibilities.
- Motivational problems with students such as keeping them interested and dealing with student apathy (those who do not want to work, need too much attention, will not think, and do not turn in assignments).
- Lack of skills to handle student discipline problems.
- Getting past a previous teacher's permissive behavior and image.

Mid-Ranked Problems

- Teaching in a field for which the teacher is not prepared.
- Lack of money for needed and/or outdated and broken equipment.
- Lack of up-to-date textbooks and instructional materials.
- Staying one week ahead with lessons.
- Outdated textbooks.

Lowest Ranked Problems

- Keeping classes to proper size.
- Lack of confidence in ability and knowledge.
- Learning about school activities and being assigned additional duties.
- More time spent in classroom management than in teaching.
- Competing with other organizations on fund-raising, money shortages, and fund raisers cancelled.

*Compilation from the top ten problems of groups B, H, and J.

Table A-3

Most Important Problems as Identified by Vocational Teachers After One Year of Teaching

NTEC List*

Highest Ranked Problems

- Lack of student motivation to learn. Poor student attitudes. Lack of classroom control. Lack of respect from the students. Student misbehavior.
- Lack of time and time management.
- Open entry and exit into classes. Students who don't want to be in class.

Mid-Ranked Problems

- Lesson planning and delivery.
- No explanation of my duties as a teacher.
- Lack of competency based education for some classes.
- Lack of educational preparation and self-confidence.

Lowest Ranked Problems

- Combining school and home life smoothly.
- Dealing with students' low self-concepts.
- Lack of equipment and supplies.

* Compilation from the top ten problems of groups A, G, and E.

Table A-4

Most Important Problems as Identified by Vocational Teachers After One Year of Teaching

TEC List*

Highest Ranked Problems

- Student problems: their lack of motivation, their lack of discipline, their inability to follow through on projects, their lack of pride in their work, their behavior, their apathy, their uncooperativeness, and their disinterest. [Student problems were by far the most severe with this group, but were not reported by our longevity group B in their top ten problems].
- Time management and lack of time.

Mid-Ranked Problems

- Lack of support from guidance. Misinterpretation of course by guidance and the administration. Class scheduling and mixing of age groups.
- Lack of support from the administration for student discipline.
- Problems with the various state departments of education (i.e. their deadlines and loss of papers).

Lowest Ranked Problems

- Thinking about work while at home.
- Problems with and lack of money for vocational student organizations.
- Teaching classes out of certification area.
- Equipment maintenance.

* Compilation from the top ten problems of groups B, F, and H.

Table A-5

Most Important Problems as Identified by Vocational Teachers After Two Years of Teaching

NTEC List*

Highest Ranked Problems

- Lack of student motivation, interest, and cooperation. Student activities. Deliberate distractive behaviors.
- Lack of understanding concerning job expectations, and a majority of learning coming from mistakes.
- Lack of textbooks for specific teaching areas, training equipment, facilities, supplies, and materials.
- Lack of organization within the program.

Mid-Ranked Problems

- Students unprepared in the basics.
- Frustration.
- Teachers who just don't care.

Lowest Ranked Problems

- Students being assigned to class after school starts.
- Student discipline the last half of the year.
- Difference in student and teacher expectations.
- Time conflicts between responsibilities: instruction, sponsorship of club, co-op, professional development, extra duties, and more.
- State officials with a low priority for education.
- Failing students, and telling them that they can't "cut it" in that particular vocation.
- Organization of time and materials.
- Being compared to the former teacher.
- Making and following lesson plans.

* Compilation from the top ten problems of groups A and C.

Table A-6

Most Important Problems as Identified by Vocational Teachers After Two Years of Teaching

TEC List*

Highest Ranked Problems

- Lack of organization and time management—a feeling of being constantly overwhelmed.
- Getting parts, supplies, and instructional materials.
- Student behavior and general discipline problems.
- Lack of time for self-study and lack of confidence—learning the subject matter well enough to become comfortable.

Mid-Ranked Problems

- Lack of understanding of school procedures, policies, and boundaries of authority.
- Thinking that every student had to like me and developing student/teacher relationships.
- Lack of a technique for teaching the subject matter.
- Lack of a system for organization of materials/shop.

Lowest Ranked Problems

- Getting forms in on time.
- New administration.
- Teaching a subject I dislike.
- Coping with the stress of a new job.
- Adjustment to inadequate facilities.
- Working for a dishonest supervisor.
- Too much paperwork.

* Compilation from the top ten problems of groups B and D.

Table A-7

Most Important Anticipated Problems as Identified by Vocational Teachers After Two Years of Teaching as They Enter Their Third Year of Teaching

NTEC List*

Highest Ranked Problems

- Maintaining high enrollments.
- Lack of a larger lab and updated equipment.
- Excessive flexibility demands on teachers.

Mid-Ranked Problems

- Taking student misbehavior personally.
- Guidance counselors lacking understanding for the program.
- Accurate and effective promotion of teacher advancement.
- Lack of administrative support and inconsistency regarding discipline.

Lowest Ranked Problems

- Lack of time to refine teaching skills and create interesting and challenging ways to deliver lessons.
- Lack of time to handle multiple responsibilities.
- Spill over of frustrations from others who are under pressure or burned out.

* Compilation from the top ten problems of group C.

Table A-8

Most Important Anticipated Problems as Identified by Vocational Teachers After Two Years of Teaching as They Enter Their Third Year of Teaching

TEC List*

Highest Ranked Problems

- Activities outside of teaching.
- Lack of supplies and equipment and teaching in outdated and overcrowded facilities.
- Lack of communication with the administration and state staff.

Mid-Ranked Problems

- Teaching high and low ability students (e.g. meeting individual needs and motivating unmotivated students).
- Teaching new subjects and programs and making and implementing new curriculum and training aids.
- Developing lesson plans, integrating new strategies, computers, games, and projects.
- Merging first and second year students and curriculum overlap.

Lowest Ranked Problems

- Better job options present the question: Do I w ntinue teaching?
- Faculty's attitudes toward vocational education and the image of the program by the guidance department.
- Understanding vocational education accounting and state funding for the program.

* Compilation from the top ten problems of group D.

Table A-9

Most Important Assistance Needs as Identified by Vocational Teachers at the Beginning of Their First Year of Teaching

NTEC List*

Highest Ranked Needs

- A mentor in the same or related instructional area and a support group. Perhaps a list of resource teachers who are compensated for their help. Opportunities to brainstorm with other faculty. A new teachers' network. (This assistance need far outranks all others.)
- A curriculum, information on where and how to get resources, the previous teacher's class materials, and a record of helpful tips. Provide the curriculum, resources, and teaching schedule early.
- A thorough orientation of procedures, policies, and the workings of the system prior to the school year. An orientation to the vocational student organizations.

Mid-Ranked Needs

- More time prior to school opening to prepare for classes.
- Numerous workshops provided on an as-needed basis.

Lowest Ranked Needs

- Instruction on good and bad communications with students.
- No extra duties for new teachers in addition to teaching.
- An extra preparation period for new teachers.
- Monetary incentives for teachers to further their teacher education.
- Background information on students and a list of resources.
- Dependable secretarial services.
- Instructions on how to handle more than one level of students in the same class at the same time.
- Smaller classes.
- A list of vendors.

* Compilation from the top ten assistance needs of groups A, G, and I.

Table A-10

Most Important Assistance Needs as Identified by Vocational Teachers at the Beginning of Their First Year of Teaching

TEC List*

Highest Ranked Needs

- An inservice on the basics. More specific and less general guidelines. New teacher workshops. A tour of the facilities and an orientation to the school district, policies, and procedures.
- Reduce or eliminate extra duties. Less paperwork, a lighter class load, and eliminate dumping extra work on new teachers.
- A master or mentor teacher (in field) to work with new teachers. Have the mentor observe and make suggestions.

Mid-Ranked Needs

- Ways for a new teacher to develop better organizational skills.
- More time prior to school start-up for preparation.
- A program of instruction or a curriculum guide and adequate teaching materials.

Lowest Ranked Needs

- A class on discipline techniques.
- Needed equipment.
- Time to observe other teachers teaching.
- A round table discussion with first year teachers.
- A final list of class enrollment before school starts.
- Abolishment of Virginia's Beginning Teacher Assistance Program (BTAP).

  (BTAP actually consisted of a performance assessment program with little assistance offered except after an initial failure.)

* Compilation from the top ten assistance needs of groups B, H, and J.

Table A-11

Most Important Assistance Needs During the First Year of Teaching as Identified by Vocational Teachers at the End of Their First Year of Teaching

NTEC List*

Highest Ranked Needs

- A continuous orientation program throughout the school (workshops available to choose from based on individual needs) such as an orientation on the goals and standard operation procedures of the school, legal responsibilities and liabilities as a teacher, clarification of all employee benefits, grading methods, organization skills, how to handle extremely active or problem students, setting priorities, curriculum development, lesson plan development, use of the state curriculum guides, teaching skills, discipline, an orientation on the student organizations, time and stress management, and personal control. Expectation and timelines for new teachers should be spelled out. Need guidance as to when to say "no". Compensation should be given for evening and weekend workshops. This is be far the strongest assistance needs for these groups.

- A first year teachers' handbook to include things such as a list of resources, a list and map of teaching machinery (i.e. copier, laminator, and others), and a list of supplies and sources. Written orientation materials geared specifically to individual programs with a trouble shooting guide and example solutions.

Mid-Ranked Needs

- A "help hot line" for new and beginning teachers.

Lowest Ranked Needs

- An opportunity to observe peer teachers' instruction.
- Clerical assistance, an available computer, and less paperwork the first year.
- A contract which begins three months before school starts.
- A mentor.
- Recognition for a job well done.
- A clear chain of command.

* Compilation from the top ten assistance needs of groups A, G, and E.

Table A-12

Most Important Assistance Needs During the First Year of Teaching as Identified by Vocational Teachers at the End of Their First Year of Teaching

TEC List*

Highest Ranked Needs

- New teachers' workshops or courses on the following: assertive discipline, counseling students, student motivation, students' substance abuse, time and stress management, teaching skills, curriculum, and lesson plan development.
- A two-day workshop, specifically for first year vocational teachers, with an indepth orientation including teaching duties and administrative policies, requisition procedures, school procedures, and events or traditions; a school calendar; an orientation and implementation information on the vocational student organization; and a get acquainted meeting for new teachers and the students, parents, and other teachers.

Mid-Ranked Needs

- A program of feedback such as a check on lesson plans, procedures, and grade book after the first six weeks, formal and informal feedback given immediately after observation of teaching to include filming, and critiquing lesson plans and presentations.
- Issue a first year teacher's handbook with schedules, a copy of every form, information on VSOs, and anything else a first year teacher would need.

Lowest Ranked Needs

- Contact with other new teachers in the same discipline.
- Good administrative support.
- A suggested syllabus with time lines.
- Smaller class size and consultation about class size in advance.
- Awards for excellent first year teachers.
- An early contract signing date.
- Up front notice of extra obligations.
- An office with a phone.

* Compilation from the top ten assistance needs of groups B, F, and H.

Table A-13

Most Important Assistance Needs During the First Two Years Of Teaching as Identified by Vocational Teachers

NTEC List*

Highest Ranked Needs

- More staff development programs to include better explanation of do's and do not's and information sessions on salaries, leave time, benefits, and more.
- A more thorough orientation program. An orientation handbook for new vocational teachers to include the following:
  - An organizational chart with names, not just positions.
  - A school tour and a map.
  - A list of available resources.
  - An introduction to available audio/visual equipment.
  - Policies that include attendance, safety, and discipline.
  - Directory of all county personnel with phone numbers and addresses.
  - Vocational student organization's sponsors, descriptions of each club and its purpose.
  - Fund-raising information.
  - List of present teacher committees and their functions.
  - Master schedule for all teachers.
  - Procedures for field trips and transportation.
  - A county map with directions to all county schools.
  - A copy of all forms with completed samples.
- A mentor in individual programs who is more involved and lets the teacher grow.

Mid-Ranked Needs

- More support from the various state departments of education.
- This type of research project meaning regularly scheduled meetings of new teachers for sharing and problem solving, beginning second year teacher workshops, and availability of small group learning sessions for new teachers.
- A more consistent disciplinary action process.
- A job description.
- A better explanation of evaluations and more feedback from the administration.

(continued next page)

Table A-13 (continued)

Lowest Ranked Needs

- Adequate facilities and modern training equipment.
- Curriculum guides and textbooks made available.
- Support and cooperation from the guidance department.
- Additional five or ten minutes of preparation time prior to school opening.
- Information on teaching assembled on transparencies, videotapes, computer disks, and/or hard copies for distribution.
- Clear and concise information regarding certification and renewal requirements.
- Gentle reminder of error by principal rather than a *write up.*

* Compilation from the top ten assistance needs of groups A and C.

Table A-14

Most Important Assistance Needs During the First Two Years Of Teaching as Identified by Vocational Teachers

TEC List*

Highest Ranked Needs

- More detailed beginning teachers' orientation sessions (state and local).
- A mentor program.
- More planning and lab maintenance time.

Mid-Ranked Needs

- Videos dealing with specific teacher needs, inservices relating to specific fields, and workshops taught by veteran teachers.
- An inservice on classroom management.
- Written guidelines for administrative tasks and duties.and an explanation of purchase orders, supplies, materials, and others, with a list of companies and a state catalog.
- Positive reinforcement/encouragement from administrators and other teachers.
- An administration tougher on discipline with a more structured in-school suspension policy.
- Meetings for new teachers.
- More instructional materials, workbooks, and textbooks.

Lowest Ranked Needs

- Visits from former college advisors.
- A reduced teacher load (number of classes) for the first year.
- Time set aside to observe other teachers.
- More evaluation and feedback.
- A better understanding of students' attitudes.

* Compilation from the top ten assistance needs of groups B and D.

Table A-15

Most Important Assistance Needs of Two Year Vocational Teachers Entering Their Third Year of Teaching

NTEC List*

Highest Ranked Needs

- Up-to-date facilities, equipment, textbooks, and supplies.
- An occasional pat on the back.
- Relaxation of dollar designations.

Mid-Ranked Needs

- Clerical support.
- Workshops on how to handle stress.
- Graduate classes brought to school.
- Allow for student interviews before students are placed in programs.

Lowest Ranked Needs

- Realistic deadlines on paperwork.
- A more thorough understanding of programs by school board and staff.
- More freedom to attend professional development activities.

* Compilation from the top ten assistance needs of group C.

Table A-16

Most Important Assistance Needs of Two Year Vocational Teachers Entering Their Third Year of Teaching

TEC List*

Highest Ranked Needs

- More parental support.
- A better understanding of programs by the guidance department and more input form counseling for program requirements.
- Technical updates, additional computer training, and college courses paid for by the school system.

Mid-Ranked Needs

- More materials.
- More shop equipment.
- Updated films and training materials provided by the state.
- Evaluations by someone who understands the program.

Lowest Ranked Needs

- Reassurance that the administration is supportive and cooperative.
- Support from the community and businesses.
- A stricter attitude toward discipline by the administration.

* Compilation from the top ten assistance needs of group D.

Appendix B: The National Survey Instrument

Code Number_____

NATIONAL STUDY OF BEGINNING VOCATIONAL TEACHERS

Is 1989-90 your first year of teaching? (Check one) Yes___ No___.
If yes, please complete this survey and return in the envelope provided.
If no, then you do not need to complete this survey, however, please return it in the enclosed envelope.

****

SECTION I -- ASSISTANCE

For **OCCURRED** below, please indicate whether you have experienced the event. For the **IMPACT** scale, please circle the number that best describes how much **IMPACT** the event has on you (or would have on you, if it occurred).

IMPACT SCALE	
NONE	0
MINOR	1
MODERATE	2
MAJOR	3
CRITICAL	4

OCCURRED			IMPACT
Y	N	Planning time was available before school started.	0 1 2 3 4
Y	N	Extra duties (bus, etc.) reduced for beginning teachers.	0 1 2 3 4
Y	N	A mentor or buddy teacher is provided.	0 1 2 3 4
Y	N	An orientation on school policies was given.	0 1 2 3 4
Y	N	Curriculum guides are available for my program area.	0 1 2 3 4
Y	N	Time is available to observe other teachers teaching.	0 1 2 3 4
Y	N	An orientation tour of school facilities was given.	0 1 2 3 4
Y	N	A workshop for new teachers was held.	0 1 2 3 4
Y	N	A Vocational Student Organization orientation was held.	0 1 2 3 4
Y	N	An in-service on counseling students was provided.	0 1 2 3 4
Y	N	An in-service on classroom management was provided.	0 1 2 3 4
Y	N	An in-service to explain the curriculum was provided.	0 1 2 3 4
Y	N	An inservice on time and stress management was provided.	0 1 2 3 4
Y	N	Extra planning period is provided for beginning teachers.	0 1 2 3 4
Y	N	My principal provided helpful evaluation and feedback.	0 1 2 3 4
Y	N	Information on purchasing supplies/equipment is provided.	0 1 2 3 4
Y	N	Adequate materials, textbooks, & workbooks are provided.	0 1 2 3 4
Y	N	My students' parents provide support for my program.	0 1 2 3 4
Y	N	A list of available resources and vendors was provided.	0 1 2 3 4
Y	N	A beginning teachers' handbook was provided.	0 1 2 3 4
Y	N	Clerical support is provided for beginning teachers.	0 1 2 3 4
Y	N	A teacher's aide is provided to beginning teachers.	0 1 2 3 4

SECTION II -- EVENTS

For the **FREQUENCY** scale below, please circle the number that best describes the **FREQUENCY** with which you experience the event. For the **IMPACT** scale, please circle the number that best describes how much **IMPACT** the event has on you (or would have on you, if it occurred).

FREQUENCY SCALE	
NEVER	0
RARELY	1
OCCASIONALLY	2
OFTEN	3
ALWAYS	4

IMPACT SCALE	
NONE	0
MINOR	1
MODERATE	2
MAJOR	3
CRITICAL	4

FREQUENCY		IMPACT
0 1 2 3 4	I receive positive feedback from my principal.	0 1 2 3 4
0 1 2 3 4	My students act unmotivated towards my subject area.	0 1 2 3 4
0 1 2 3 4	I see my students succeeding in my class.	0 1 2 3 4
0 1 2 3 4	My students display a lack of self-discipline.	0 1 2 3 4
0 1 2 3 4	I feel self-confident in my classroom teaching.	0 1 2 3 4
0 1 2 3 4	I receive positive feedback from my students.	0 1 2 3 4
0 1 2 3 4	I have more work to do than I have time to do it.	0 1 2 3 4
0 1 2 3 4	I am compared to the former teacher in this program.	0 1 2 3 4
0 1 2 3 4	I have inadequate equipment.	0 1 2 3 4
0 1 2 3 4	I have inadequate facilities (classroom/lab/etc.).	0 1 2 3 4
0 1 2 3 4	Students act with respect towards me.	0 1 2 3 4
0 1 2 3 4	The subject matter I teach is already familiar to me.	0 1 2 3 4
0 1 2 3 4	Local businesses provide support for my program.	0 1 2 3 4
0 1 2 3 4	I receive positive feedback from my peers.	0 1 2 3 4
0 1 2 3 4	I am taking classes to further my education.	0 1 2 3 4
0 1 2 3 4	My students show pride in their accomplishments.	0 1 2 3 4
0 1 2 3 4	I have trouble making and sequencing lesson plans.	0 1 2 3 4
0 1 2 3 4	My principal supports me.	0 1 2 3 4
0 1 2 3 4	I have obtained the goals that I set for myself.	0 1 2 3 4
0 1 2 3 4	I have had success using new teaching approaches.	0 1 2 3 4
0 1 2 3 4	My job allows me to be creative.	0 1 2 3 4
0 1 2 3 4	I experience satisfaction when an activity succeeds.	0 1 2 3 4
0 1 2 3 4	I feel in control of my program.	0 1 2 3 4

SECTION II -- EVENTS
(continued)

FREQUENCY SCALE	
NEVER	0
RARELY	1
OCCASIONALLY	2
OFTEN	3
ALWAYS	4

IMPACT SCALE	
NONE	0
MINOR	1
MODERATE	2
MAJOR	3
CRITICAL	4

FREQUENCY		IMPACT
0 1 2 3 4	I have insufficient funds for supplies & equipment.	0 1 2 3 4
0 1 2 3 4	My peers act with respect towards me.	0 1 2 3 4
0 1 2 3 4	Job tasks that I am doing are already familiar to me.	0 1 2 3 4
0 1 2 3 4	I see my students working to have a better future.	0 1 2 3 4
0 1 2 3 4	I have inadequate curriculum materials.	0 1 2 3 4
0 1 2 3 4	I receive expressions of gratitude from my students.	0 1 2 3 4
0 1 2 3 4	My class sizes are not appropriate for my subject.	0 1 2 3 4
0 1 2 3 4	I have to do recruitment activities for my program.	0 1 2 3 4
0 1 2 3 4	I receive help from my state vocational supervisor.	0 1 2 3 4
0 1 2 3 4	I run into problems because my administrator does not give clear job expectations.	0 1 2 3 4
0 1 2 3 4	My program is misunderstood by others (such as parents, students, counselors, administrators).	0 1 2 3 4
0 1 2 3 4	My students participate in vocational club activities (DECA, FBLA, FFA, FHA/HERO, HOSA, TSA, VICA, etc.).	0 1 2 3 4
0 1 2 3 4	I receive help from my local vocational supervisor or director.	0 1 2 3 4
0 1 2 3 4	I experience problems because I don't understand school policies or procedures.	0 1 2 3 4
0 1 2 3 4	My home life is negatively affected because of my school work.	0 1 2 3 4
0 1 2 3 4	I run into problems because of my poor organizational skills.	0 1 2 3 4

SECTION III--DEMOGRAPHICS

Please complete the following demographic information. This information is confidential and it will be used for statistical purposes only.

1. Age at last birthday: _____

2. Gender: (Check one) Male _____ Female _____

3. Race: (Check one)
   _____ White (not of Hispanic origin)
   _____ Hispanic
   _____ African-American
   _____ Native American
   _____ Oriental
   _____ Other(specify) _____

4. Marital status: (Check one) Married _____ Not Married _____

5. Number of children: _____

6. Annual income from teaching (to nearest $100) $ _____

7. a. Highest education completed: (Check one)
   _____ High school
   _____ Associate
   _____ Vocational/Technical/Trade School
   _____ Bachelors
   _____ Masters
   _____ Doctorate
   _____ Other (specify) _____
   b. Type of degree: (Major) _____
   c. Type of teaching certificate _____

8. Did you student teach? (Check one) Yes _____ No _____

9. a. Is a mentor/buddy teacher assigned to you? (Check one) Yes___ No___
   b. **If yes**, how much help has the mentor or buddy been this year?
   _____
   c. **If yes**, does the mentor teach the same subject area as you? _____

10. a. What grade level(s) do you teach? _____
    b. What subject area(s) do you teach? _____
    _____

11. How many hours per week, on the average, do you actually spend on the following school-related activities: (Write number in the blank)
    _____ Teaching in-school students (1 class period = 1 hour)
    _____ Teaching adults
    _____ Planning for teaching, grading papers, etc.
    _____ Non-instructional activities (clubs, committees, etc.)
    _____ Supervision of student work experience (co-op, etc.)

12. How many days were you required to work before classes started?_____

13. Length of teaching contract: (in months) _____

14. a. Do you teach at more than one school? (Check one) Yes_____ No_____
    b. **If yes**, how many? _____

15. What type of school do you teach in? (Check all that apply)
_____ middle or junior high school
_____ comprehensive high school (regular)
_____ vocational high school
_____ area/regional vocational center
_____ other (specify) _____

16. School size: (Check all that apply)
_____ under 250
_____ 250 - 499
_____ 500 - 1000
_____ 1001 - 2000
_____ over 2000

17. Size of the community that the school serves: (Check one)
_____ rural area
_____ population of under 2500
_____ population of 2500 - 9999
_____ population of 10,000 - 24,999
_____ population of 25,000 - 99,999
_____ city of 100,000 +

18. On a scale of 0 to 4 with 0 being very unsatisfied and 4 being very satisfied, please circle the degree to which you are satisfied with your job.
0 1 2 3 4

19. On a scale of 0 to 4 with 0 being very low stress and 4 being very high stress, please circle the overall level of stress that you feel from your job.
0 1 2 3 4

20. Next year, do you expect to: (Check one)
_____ remain in your present position
_____ teach at another school
_____ other(specify) _____

21. Next year, if you had your choice would you: (Check one)
_____ remain in your present position
_____ teach at another school
_____ other(specify) _____

22.a. Are you involved in any kind of beginning teacher assistance program? (Check one) Yes _____ No _____
b. If yes, please describe it in the space below or enclose literature that fully describes the program.

We appreciate your important contribution to the study. Please return this survey in the enclosed envelope by April 15, 1990 to:

B. Allen Talbert,
Vocational & Technical Education
Virginia Tech
Blacksburg, VA 24061-0254