DOCUMENT RESUME

ED 328 747 CE 056 941

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TITLE Induction Detractors of Beginning Vocational Teachers with and Without Teacher Education.
SPONS AGENCY Office of Vocational and Adult Education (ED), Washington, DC.
PUB DATE Dec 89
NOTE 22p.; Paper presented at the Annual Meeting of the American Vocational Education Research Association (Orlando, FL, December 1989). For related documents, see ED 303 628, ED 312 501, and CE 056 943-944.
PUB TYPE Speeches/Conference Papers (150) -- Reports - Evaluative/Feasibility (142)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Alternative Teacher Certification; *Beginning Teacher Induction; *Beginning Teachers; Educational Needs; Educational Practices; Higher Education; *Problems; Secondary Education; *Teacher Attitudes; *Teacher Education Programs; *Vocational Education Teachers

ABSTRACT

A study examined the "induction detractors" (defined as more broadly based than "problems") experienced by beginning vocational education teachers entering from traditional teacher education programs and those entering without such training. A sample of 12 (7 male, 5 female) first-year vocational education teachers was selected from Virginia, West Virginia, and North Carolina. Five of the teachers were certified through teacher education, four through alternative programs, and three through vocational certification. The average age of the teachers from teacher education backgrounds was 23, whereas the average age of the alternatively or vocationally certified teachers was 38. Data collected included biographical, situational, school and community, personality, and job satisfaction information. Data were collected through focus group sessions, field observations, and interviews with the teachers, principals, vocational directors, other teachers, and students. A total of 1,777 detractors were identified. For both groups of teachers the most important category of detractors is students, followed by the educational system. Alternatively certified teachers' detractors were higher than expected in the areas of curriculum, pedagogy, peers, students, and system, whereas detractors for those certified in teacher education were higher than expected for the community, internal, and program categories. The study recommended programs to meet the needs of beginning vocational education teachers. (28 references) (KC)

INDUCTION DETRACTORS OF BEGINNING VOCATIONAL TEACHERS WITH AND WITHOUT TEACHER EDUCATION

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A paper presented at the Annual Meeting of the American Vocational Education Research Association, Orlando, Florida.
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The project reported herein was performed pursuant to a grant from the Office of Adult and Vocational Education, United States Department of Education. The opinions expressed herein do not necessarily reflect the position or policy of the U.S. Department of Education and no official endorsement by the U.S. Department of Education should be inferred.

INDUCTION DETRACTORS OF BEGINNING VOCATIONAL TEACHERS WITH AND WITHOUT TEACHER EDUCATION

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Teachers work in a whirlwind of activity. They are surrounded by an environment and by people that require a feverish pace of activity and decisions. It is inevitable that such a work environment would be rich both in opportunities and in problems. This is particularly true of the novice teacher, whose set of problems includes not only those of the experienced teacher, but problems resulting from learning and surviving in a very difficult profession and adjusting to a whole new lifestyle.

Theoretical Framework

Learning to Teach

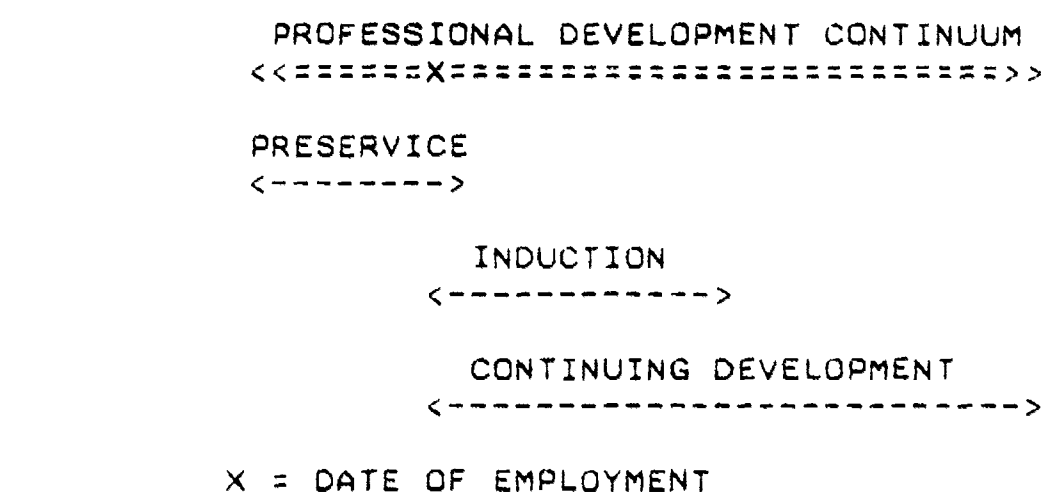
According to Shulman (1987, November), teaching may well be the most difficult of all professions to master. A successful teacher requires as much technical knowledge in a discipline as do practitioners in that discipline. But, in addition the teacher must be able to organize and present that knowledge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

Professional Development Continuum

Mastering teaching is a long and challenging undertaking (Feiman-Nemser, 1983; Conant, 1963; Whitfield, 1981). Thus, teacher education must be viewed as a long-term, developmental process (Hoffman, Edwards, O'Neal, Barnes, & Paulissen, 1986; Wildman & Niles, 1987). There are three general stages in the professional development of teachers: preservice, induction, and continuing development.

The process of becoming a teacher takes place over an extended period of time. It can be visualized as a continuum, (see figure 1) including preservice education, induction, and continuing development (Camp, 1988, April). Of those three phases, the induction process is the focus of the research project on which both this monograph, and the symposium at which the papers were first presented are based.

Figure 1.
Professional Development in Teaching



The first stage, as described for vocational education by Pratzner (1988, April), 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 the prospective teacher to prepare him or her for the next stage. In the case of those vocational teachers who do not enter the profession through a teacher education program, the preservice stage may consist of nothing more than an orientation by the school administrator (Camp, Heath, Barber, & Talbert, 1989).

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 become an established teacher. The induction process is not a simple one and it is often painful (Ryan, 1982, March). It is not defined by a definite set of timelines (Camp, 1988, April). The teacher induction process typically begins well before the novice enters the classroom or laboratory for the first time as a paid professional (Roper, Hitz, & Brim, 1985). It does not end, if it ever ends, until the teacher is firmly established, competent, and confident as a professional faculty member (Fuller, 1969; Glickman, 1981; Huffman & Leak, 1986).

The third stage in professional development is that of continuing development or continuing education, as described by Callahan and Clark (1988); Whitfield (1981); and Fenstermacher & Berliner (1983). Professional involvement, graduate education, travel, planned growth experiences, professional reading, and contributions to the education community are examples of continuing development.

Research on Induction

For the professionally educated teacher, the induction process begins with the first preservice course in teacher education or educational psychology and includes extensive preclinical, clinical, and simulated classroom and laboratory experience (Berliner, 1985; Roper, Hitz, & Brim, 1985; Waters, 1985; Lortie, 1975; Huffman & Leak, 1986; Johnson & Kay, 1987). But for many vocational education teachers it begins with a job interview and a tour of the laboratory, normally just before school starts and is probably limited to a brief survival skills workshop during the summer, or less (Camp, 1988, April).

Fuller (1969) reported work that provides a framework for looking at the induction process for beginning teachers. She and her associates at the University of Texas (1969) worked with preservice and beginning teachers for a number of years in the 1960's 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 a developmental progression of concerns of preservice students and beginning teachers through three major phases: self, task, and impact.

In the ***self*** stage, preservice or beginning teachers with little teaching experience were not yet critically concerned about teaching or students. They wanted their students to do well, but that was primarily because of their own needs to experience success in teaching. At that stage, they were not very likely to experiment or take risks in their teaching. After some experience they began to become more concerned with their ability to manage the ***tasks*** involved in teaching. They were now ready to experiment with teaching strategies and better ways of performing the functional aspects of teaching. Finally she found that teachers who had gained enough experience and success to become confident in themselves and their ability to handle the tasks of teaching, became concerned with their ***impact*** upon their students. It was at the impact stage that teachers exhibited unselfish and unfearful concern about students as individuals and about their educational needs.

Importance of the Problem

For decades we have recognized the beginning teacher's need for help in making the transition into the profession (Conant, 1963). There is a growing consensus in the profession that induction assistance programs are needed to facilitate that process (Underhill & Brown, 1988; Ashburn, 1986-87; Galvez-Hjornevik, 1986; Johnson & Kay, 1987; Huling-Austin, 1986; Thies-Sprinthall & Sprinthall, 1987). If induction programs for beginning vocational teachers are to be planned and structured with consideration of the unique character and needs of beginning

vocational teachers, then they must be based on appropriate research.

Research being reported at this Convention of the American Vocational Association by Camp, Heath, Barber, and Talbert (1989), indicates that a major part of the beginning vocational teacher's life during the induction period is plagued with negative influences. They coined the term *DETRACTORS* to refer to the broad set of negative influences, including things that in the past have been referred to as problems.

Over the years, much research has been done to identify the induction problems of teachers in general. Somewhat more limited research is available to address the specific problems and inservice needs of beginning teachers (Veenmam, 1984). In general, what research is available has been limited to the induction problems of 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, 1988, April). Moreover, the broader perspective of induction detractors, including but not limited to problems, of novice teachers is completely unaddressed in the literature.

Research Questions

The following research questions guided the research being reported today:

1. What induction detractors are experienced by beginning vocational teachers entering teaching from traditional teacher education programs.

2. What induction detractors are experienced by beginning vocational teachers entering teaching from alternative or vocational certification routes.

3. Are there differences in the induction detractors experienced by beginning vocational teachers entering teaching from traditional teacher education programs and those entering teaching through alterrative or vocational certification routes?

Methodology

The overall project from which the data for this paper is derived consists of two broad phases. This paper will report results from only a selected portion of the overall study. Today we will report only a minor portion of the methodology and results.

Selection of Participants

A purposefully selected samples of beginning vocational teachers from Virginia, West Virginia, and North Carolina participated in the year-long study. 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 (Figure 2). We used that matrix as the basis for the search, but identifying and maintaining a sample of teachers that precisely matched the matrix for the data collection was impossible.

Figure 2
Matrix of Search Criteria for Participants in Each Group

	Teacher Education Certification (TEC)	Non-Teacher Education Certification (NTEC)
Agricultural Education		
Business Education		
Marketing Education		
Trades & Industries		
Technology Education		
Health Occupations		
Home Economics Education		

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 exact status with regard to time-point in teaching, service area, and source of certification. That produced a much reduced list of potential participants. At that point, their principals, vocational directors, and superintendents were contacted by letter then by telephone to secure permission for the teachers to participate, since they would normally miss a day of class. Finally, letters of confirmation and directions were sent to the participants.

Of the 12 first year teachers, five are graduates of teacher education programs, [illegible]ee hold degrees in the technical fields in which they teach, on[illegible]olds a Master of Fine Arts degree, one holds an associate degree in nursing, and two hold high school diplomas. Thus, members of the group are certified as follows: five through teacher education, four through alternative programs, and three through vocational certification.

There are seven males and five females. Occupational experience varies from several years in part-time jobs for one teacher education graduate to over 25 years in the relevant trade for one high school graduate. Two of the teachers are black and 10 are white. Six are teaching in comprehensive high schools, three are in vocational centers, two are in middle schools, and one is teaching one-half day in each of two junior high schools. The following services are 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 non-teacher education teachers. As of the beginning of the study, of the five beginning teachers with teacher education backgrounds, the average age was 23 and only one was married. Of the seven with alternative or vocational certification, the average age was 38 and only one was single.

Data Collection Procedures

In general, a wide range of both qualitative and quantitative techniques are being used in the overall study. We collected biographical data, situational data, school and community data, personality types, job satisfaction data, and many others. We conducted focus group (Nominal Group Technique) sessions; field observational visits; and interviews with the teachers, principals, vocational directors, peer or mentor teachers, and students. The entire data set is very extensive and rich. Beginning in September, 1988

Daily Logs

For their first year of teaching, each member of the A/B sample was given a tape recorder that operates with batteries or regular AC current, batteries, blank tapes, pre-addressed 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.

Data Analysis Procedures

A Note on the Procedures

It is important to emphasize that this is essentially a qualitative study. At the same time, certain comparisons between groups, across time, and in terms of patterns can be discovered and interpreted more easily using a quantitative approach. We do not want to lose, or even confuse the fundamentally qualitative nature of the research. wever, this paper will present a quantitative analysis of part of the data.

It is also important to note that we are not attempting to generalize these findings to all beginning vocational teachers. The sample was purposefully drawn from three states in the eastern part of the country. It is not representative of all beginning vocational teachers. If fact, we selected the sample to be as representative of vocational education as possible. The use of chi-square in this report was done to examine for relationships between those two groups of selected teachers.

Domain Analysis of Transcripts

As we used it here, a domain is defined as a conceptually similar group of things. Another way of describing a domain is that it allows us to group like items (objects, incidents, attitudes, or behaviors.) It exists in two ways. First it can be labeled and defined in such a way that like items belong to the domain and that other items do not. Secondly, it can be defined by items that belong within it or are examples of it.

The first step in domain analysis was to select and clearly define the domain of interest. Once the domain was clearly defined, then the transcripts were read from beginning to end. Each time an item that fit the definition of the domain was described by a respondent, a brief description of the item was recorded. Additionally, the teacher's code number and the week that the daily log was made were recorded for each item.

The initial domain analysis we undertook was that of problems. That was because the literature on beginning teachers and teacher induction is so replete with discussion of concerns about problems and how to overcome them. As we began the analysis of the transcripts to identify problem-statements, we discovered that many negative things were listed that could only very loosely be considered problems. Thus we came to use the more general term ***DETRACTORS*** to represent any kind of negative influence (e.g.--experiences, incidents, problems, or feelings) that interfered with the teacher's ability to perform in that role or that produced feelings of inadequacy or anxiety.

Analytical Framework

To assist in the analysis of the large numbers of items for each domain, it was necessary to use an analytical framework. We developed an eight-category framework based on conceptual distance from the teacher, ranging from internal being the most proximate to the community outside the school system being the most distant. Figure 3 provides a graphic conceptualization of the relationship among each of the categories. The categories we developed are described in the following paragraphs.

Internal. Items arising from factors within the teacher. Internal factors may include such things as perceptions of self and others, self-confidence, self-concept, personal and professional values, beliefs, and self-control. This category

also includes personal skills such as time management, stress management, and personal organization.

Pedagogy. Items related to the short term planning, delivery, evaluation, and improvement of instruction. They may include items involving such things as short term lesson planning; securing, assembling, and organizing instructional supplies, resources, and materials as a part of daily lesson planning; and preparing for, delivering, and evaluating instruction.

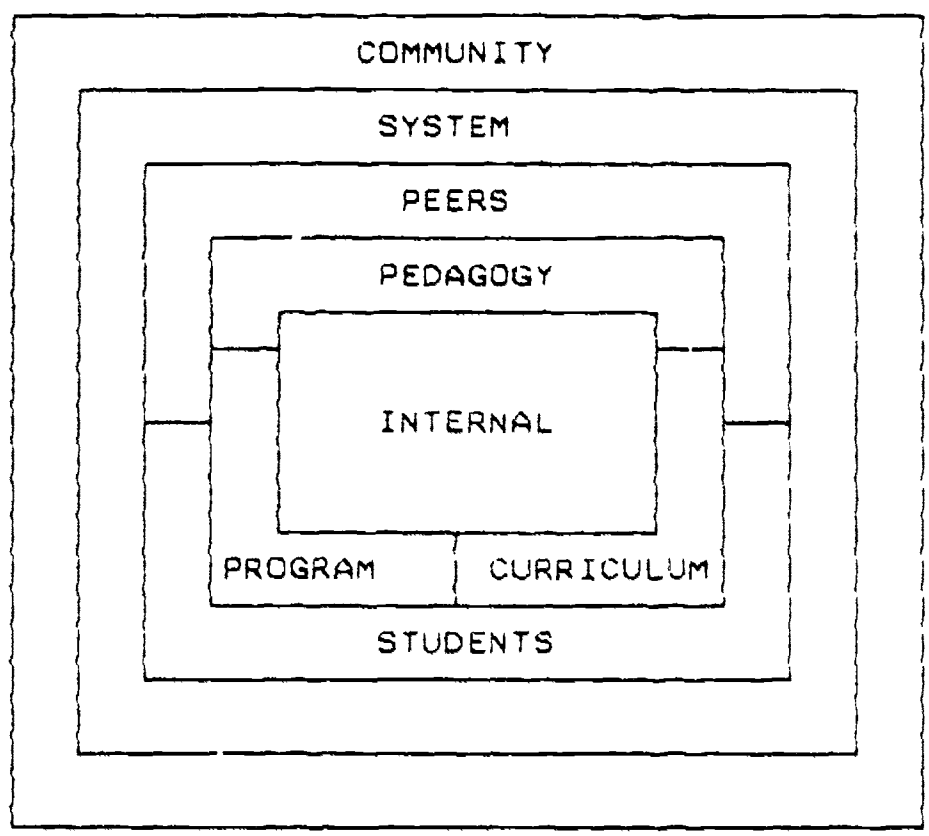
Curriculum. Items related to the intermediate term planning of course content and preparation for instruction. Curriculum-related items may involve such things as planning and organization of courses of study and units of instruction; and selecting, organizing, and maintaining texts, instructional materials, references, and instructional resources.

Program. Items that arise in conjunction with the long term planning and operation of the department, sub-unit or program. Program-related may involve such things as broad program planning, program development, and even making decisions on the courses to offer. Program-related items may also involve recruiting and selecting students; securing, operating, and maintaining facilities, supplies, and equipment; and securing and maintaining materials, resources, supplies, office, files. A source of difficulties often overlooked is simply operating duplicating, audio-visual, and other instructional equipment. For teachers with shops or other laboratories, the operation, placement, and maintenance of production equipment, supplies, and materials can be particularly important as a source of items.

Students. Items resulting from interactions with students. These items may involve such things as student-teacher relationships, management of students, guiding students, communication with students; student discipline; other types of student misbehavior; motivation of students; student-student relationships, animosity, rivalry, affection.

Peers. Items arising from interactions with persons with co-workers who are neither superior nor subordinate. In this regard, peers are taken to include not only fellow teachers, but all faculty and staff members whose relationship to the novice teacher involves neither providing to nor receiving from the novice directions which must be followed. They include, but are not limited to such things as personal and professional interaction with other persons such as other teachers, teacher aides, and other staff members within the school or school system.

Figure 3
Conceptual Framework for Analysis of Domain Items from Beginning Vocational Teachers



System. Items resulting from interactions with forces or persons within the educational system who make decisions with which the teacher is expected to comply. They include, but are not limited to such things as relationships with persons whose decisions produce mandatory impact on the teacher. The obvious examples are administrators, principals, supervisors, and department heads. But there is a whole range of persons whose actions impact on the options of the novice teacher--e.g. counselors, secretarial staff, janitors, cafeteria workers, and other school and school system staff. System-related incidents also arise from school and school-system policies: management procedures and regulations; clerical and compliance paperwork; class scheduling; and student counseling. A source of many items is non-instructional duties such as hall duty or coaching. Also included are teacher certification programs, and teacher evaluation programs designed for certification or tenure evaluation.

Community. Items arising from interactions with situations and with persons outside the physical and administrative bounds of the school system that affect the professional or personal life of the teacher. Community-related items may arise from

interactions with persons such as parents, business persons, and other community members. Physical factors outside the school system such as community location, demographic characteristics, services, facilities, and commuting distance are involved in a range of items. Particularly for the beginning teacher, distance from persons whom he or she needs for support (e.g. moral, physical, financial) can be important.

Generic/Vocational

Each item was further classified as to 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, laboratories, co-curricular organizations, students, curriculum, data reporting, purchasing, etc.

Item Classification

Items for the DETRACTOR domain were extracted by searching the complete set of transcripts specifically for that domain. Each item was classified by (1) whether the teacher was TEC or NTEC, (2) the week that the item was reported, and (3) the category of the analytical framework within which the item fit. In the case of significant events, items were also classified as to whether they were positive, neutral, or negative in nature.

Results

A total of 1,777 detractors were identified from the transcripts for the beginning teachers' first year's daily logs. Detractors for TEC teachers and NTEC teachers were compared across the eight categories of the analytical framework. The NTEC teachers reported a total of 1100 detractors and TEC teachers reported 677 detractors. 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 items per teacher was 148.1.

An examination of Table 1 reveals that, for both groups of teachers (NTEC and TEC) as well as for the combined focus groups, the most important category of detractors is students (37.8%), followed by system (22.9%). The categories of community and curriculum are at the opposite end (2.3% and 1.1%, respectively).

A chi-square of 40.0 ($df=7$, $p<.05$) indicates a significant association between source of certification and category. NTEC teachers' numbers of detractors were higher than expected for curriculum, pedagogy, peers, students, and system related detractors. TEC teachers detractors were higher than expected for the community, internal, and program categories.

The most important contributors to the chi-square are the community and program related sets of detractors, favoring NTEC teachers and pedagogy favoring TEC teachers.

Table 1
Detractors for all Teachers:
Category of Detractors by Source of Certification

	CERTIFICATION SOURCE					
CATEGORY	NTEC	%	TEC	%	TOTAL	%
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	3.6	70	3.9
PROGRAM	118	10.7	107	15.8	225	12.7
STUDENTS	427	38.8	244	36.0	671	37.8
SYSTEM	265	24.1	142	21.0	407	22.9
TOTAL	1100		677		1777	

Notes:
NTEC--Non-Teacher Education Certified (alternative or vocational)
TEC--Teacher Education Certified

Chi-Square	DF	Prob
40.0	7	0.000

Perhaps an examination of some of the actual detractors extracted from the transcripts would be illustrative of the nature of the differences found. Figure 4 provides a set of examples of the specific detractors identified by the teachers, grouped by category.

We found that the NTEC teachers tended to have fewer community related detractors. In general they had been in the communities longer than their TEC counterparts. The detractors illustrate that difference. In the case of the NTEC teacher, the problem was in spending too much time doing favors for other members of the community. For the TEC teacher, it was simply getting established in the new community.

A difference in terms of curriculum, is reflected in the NTEC teacher not being initially familiar with how to plan a curriculum outline and the TEC teacher needing to know what was taught last year. In terms of pedagogy, we fount*d that the NTEC teachers had more difficulties. The detractors listed may

reflect some light on that finding. The NTEC teacher found writing tests to be a new experience and the TEC teacher found it difficult to keep up on lesson planning. An interesting example of the differences in terms of the system is illustrated by the NTEC teacher's requirement to take a night course for certification and the TEC teacher's lack of experience in bus duty.

Figure 4
Detractors Listed by Participants in the Study, by Category

CATEGORY	GROUP	DETRACTOR
COMMUNITY	NTEC	-getting jobs done in shop for people in community
	TEC	-getting established in new community
CURRICULUM	NTEC	-not knowing how to do curriculum outline
	TEC	-not knowing what was taught the previous year
INTERNAL	NTEC	-not enough time to plan classes
	TEC	-teacher showing anger to student
PEDAGOGY	NTEC	-not knowing how to write a test
	TEC	-keeping lessons plans up
PEERS	NTEC	-lack of trust by the department instructors
	TEC	-other teachers getting into shop supplies
PROGRAM	NTEC	-not knowing about VICA competitions, rules, procedures
	TEC	-missing day of teaching to pick up piece of equipment
STUDENTS	NTEC	-dealing with student's personal problem
	TEC	-disruptive students - constantly with two students
SYSTEM	NTEC	-having to take night course for certification
	TEC	-bus duty - not knowing what to do

We then examined the vocational education uniqueness of the detractors by source of teacher certification. An important finding is that almost one-fourth (24.8%) of all detractors reported by the first year vocational teachers were attributable to the unique characteristics and requirements of vocational education.

The chi-square was again significant (6.4, df=1, $p<.05$) indicating an association between the two classification variables. An examination of table 2 reveals that generic detractors were relatively more important to NTEC teachers in the sample. The TEC teachers experienced a higher proportion of vocational education specific detractors than did NTEC teachers.

Table 2
Detractors for all Teachers:
Generic/Vocational Specific by Source of Certification

GENERIC/ VOCATIONAL	CERTIFICATION SOURCE NTEC	%	TEC	%	TOTAL	%
GENERIC	850	77.3	487	71.9	1337	75.2
VOCATIONAL	250	22.7	190	28.1	440	24.8
TOTAL	1100		677		1777	

Notes:
NTEC--Non-Teacher Education Certified (alternative or vocational)
TEC--Teacher Education Certified

Chi-Square	DF	Prob
6.4	1	.011

In an attempt to illustrate the differences between the two groups of teachers in this area, we have identified several typical detractors, see figure 5. Again, the detractors themselves provide additional insight.

It is difficult to distinguish between the generic detractors for the two groups of teachers. But, when we look at the sample vocational specific detractors, a pattern emerges. The NTEC teacher who expressed an initial lack of familiarity with the vocational club was typical. The equivalent frustration for the TEC teacher was in learning how to order machine parts.

Figure 5
Detractors listed by Participants in the Study.
Generic/Vocational

GEN/VOC	GROUP	DETRACTOR
GENERIC	NTEC	-students antsy in class before long break -socializing on teacher work days instead of work -teaching different grade levels
	TEC	-not knowing how to use AV equipment -students who misbehave in class -having sub for half a day to teach classes
VOCATIONAL	NTEC	-not knowing the ropes with vocational club -FHA fund raisers - school secretary sent check without order -surprise evaluation by state supervisor
	TEC	-coordinating FFA fund raiser -watching 15-20 students in shop (wood) -procedure for ordering machine parts

Finally, we examined the association between the frequency of detractors reported by semester, for the two groups. Table 3 contains that information. The frequency of reported detractors was quite consistent, but the distribution by teacher group changed between semesters.

We found a significant chi-square (34.9, df=1, $p<.05$) which indicates a significant association. Examination of table 3 reveals that the TEC teachers reported a relatively higher frequency of detractors in the first semester and the NTEC reported a higher relative frequency in the second semester.

Table 3
Detractors for all Teachers:
Semester by Source of Certification

	CERTIFICATION SOURCE					
SEMESTER	NTEC	%	TEC	%	TOTAL	%
1	514	46.7	414	61.2	928	52.2
2	586	53.3	263	38.8	849	47.8
TOTAL	1100		677		1777	

Notes:
NTEC--Non-Teacher Education Certified (alternative or vocational)
TEC--Teacher Education Certified

Chi-Square	DF	Prob
35.0	1	.000

The illustrative detractors in figure 6 are very useful in understanding the differences. The NTEC teachers experienced difficulties initially in determining how to write lesson plans. At the same time TEC teachers were bothered by the amount of work that was needed to accomplish the job. Later in the year, the nature of the detractors seemed to become more similar for the two groups, as the NTEC teachers began to master the skills that are normally taught in teacher education programs.

Figure 6
Detractors listed by Participants in the Study, by Semester

SEMESTER	GROUP	DETRACTOR
1	NTEC	-writing lesson plans, how & what to include -lack of trust by the department instructors -coordinators not giving directions for test grading
	TEC	-personal health (not feeling well) -lack of support from principal concerning disruptive students -not enough time to do everything
2	NTEC	-deciding on what to teach last nine weeks -getting students to wind down after big DECA events and get into lessons -students who lag behind in completing projects
	TEC	-not knowing complexity of students' projects -motivating students to finish work at end of year -being able to work with each student in shop

Conclusions

1. The term DETRACTORS is more meaningful and descriptive of the wide range of frustrations experienced by beginning vocational teachers, than is the term PROBLEMS.

2. Relationships with and between students are the most important source of frustration for beginning teachers.

3. The educational system itself contributes a major share of the detractors experienced by beginning vocational teachers. Purchasing, evaluation, reporting, and the heavy work load are sources of much frustration.

4. There are many differences in the detractors experienced by beginning vocational teachers with (TEC) and without (NTEC) teacher education backgrounds.

   a. TEC teachers' detractors are more often related to adjusting to the new community and to learning how to operate within the occupation itself. TEC teachers must learn the "tricks of the trade" for the occupational area.

   b. NTEC teachers experience more frustrations from learning to operate within the school system and adjusting to the less structured way of doing things as compared to the work world. NTEC teachers must learn the "tricks of the trade" for the school system.

5. NTEC teachers are more experienced in their technical fields and thus experience a relatively smoother time in terms of vocational education specific detractors than do their TEC counterparts.

6. TEC teachers are initially better prepared to deal with teaching requirements and experience a relatively smoother time in terms of generic detractors than do the NTEC teachers.

Discussion

It was not the purpose of this study to make a value judgement regarding the efficacy of the various routes by which beginning vocational teachers enter the profession. Both TEC and NTEC teachers are important to the success of vocational education in the United States. If value judgements are inferred from reading the paper, they are not intended and are not supported either by the design or the findings of the research.

As we began this study, we wondered whether there were real and fundamental differences in the nature of the induction process between those beginning vocational teachers whose backgrounds included college level teacher education programs and those whose backgrounds did not. At least in terms of the negative aspects of induction, i.e. detractors, we have found that there are indeed important differences.

We also wondered whether beginning vocational teachers experienced a different set of detractors from those experienced by other teachers. We found that a major portion of the detractors were indeed unique to vocational education.

For those state level policy-makers, educational leaders, and teacher educators who are responsible for the early professional development of beginning teachers, the implications are clear.

1. Beginning vocational teachers experience many of the same detractors as other beginning teachers experience. But an important portion of the detractors are different.

   Therefore, induction assistance programs should be tailored to meet the unique needs of beginning vocational teachers in addition to the generic needs of all beginning teachers.

2. The negative induction experiences are different for the two groups of teachers. That implies that the induction assistance needs are also different, at least with regard to overcoming those negative influences.

   Therefore, induction assistance programs should be tailored to meet the unique differences in needs between the two different groups of beginning vocational teachers.

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