Career and technical education (CTE) administrators are increasingly being forced to resort to filling CTE teacher positions by hiring industry experts for classroom teaching positions and subsequently using creative ways to develop qualified, certified, and exemplary CTE instructors. Traditional teacher mentoring and induction programs fail to meet the unique needs of those who become CTE teachers through routes other than traditional teacher education programs. The recent increase in alternatively certified CTE teachers has necessitated development of alternative teacher development models that mesh teacher education, mentoring, induction, and professional development. New models encompassing a broader definition and spectrum of teacher development activities are needed to help CTE teachers who enter the profession from industry and who, because of their limited educational preparation, often experience higher degrees of job-related stress. Components of successful pilot teacher development models are as follows: (1) partnerships among schools, districts, and educational institutions to leverage resources of personnel, equipment, and dollars; (2) continuous emotional/psychological and instructional support; (3) job-embedded teacher development activities that become an institutionalized part of the teacher workday; and (4) flexibility in teacher development program design and implementation. As pilot models for teacher development continue to emerge, research will be needed to assess their impact on student learning and achievement. (Contains 21 references.) (MN)
Teacher Development in CTE
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Kathleen Szuminski

National Dissemination Center for Career and Technical Education
The Ohio State University
1900 Kenny Road
Columbus, OH 43210-1090

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Teacher Development in CTE

Even though the number of teachers prepared annually is sufficient to meet marketplace demands (Darling-Hammond 2002; Ingersoll 2002), finding and retaining exemplary classroom teachers is a concern for K-12 schools nationwide. This dilemma is influenced by two primary factors:

- New teachers leave the profession at rates as high as 50% within 5 years and 80% within 10 years (Boreen and Niday 2000, cited in Hansman 2002).
- Contrary to the notion of a "graying" teaching force, teachers leave the profession primarily due to working and organizational conditions including low salaries, lack of support from administration, student motivation, and lack of input into school decision-making processes (Ingersoll 2002).

Solutions to the teacher shortage issue rely heavily upon alternative certification routes and preliminary indicators of success:

- Alternatively certified teachers are remaining in the profession longer (Feistritzer 2002); in New Jersey, "attrition rates for alternatively certified teachers were lower than those of traditionally trained counterparts" (Klagholz 2000, p. 16).
- Alternatively prepared teachers perform as well or better than traditionally trained teachers on National Teachers Examinations (Klagholz 2000).
- Alternatively teacher education routes may likely become "more prevalent if not the dominant" route within the next century (Gray and Walter 2001, p. xii).

The CTE Dilemma

"Teaching in CTE is a rigorous yet frequently underrated challenge" (Cutsboll 2002, p. 20). Preparing to teach in CTE is often a frustrating and underrated challenge as well—the essential need for industry expertise negates traditional teacher education training, thus creating a different entry route for many CTE teachers. Compounding factors include the following:

- A decline in the number of CTE programs—11% over the past 10 years (Bruening et al. 2001), in addition to "downsizing" or reorganization into larger curriculum units (Gray and Walter 2001)
- Existing teacher education programs that remain "very traditional in the structure and delivery of their courses" (Bruening et al. 2001, p. xi)
- The cost of postgraduate teacher training in terms of tuition and salary loss, which can be significant obstacles and can "easily reduce a teacher's real compensation during the first five years by 25% or more" (Hess 2002, p. 8)

The resulting reality for CTE administrators is an increasing de facto practice of hiring industry experts for classroom teaching positions and, subsequently, using creative ways to develop qualified, certified, and exemplary CTE instructors.

Troubles of Traditional Programs—and Emerging New Models

Because of the de facto entry route and lack of formal teacher training upon hiring, traditional mentoring and induction programs become problematic. Lynch (1998) reports that "traditional mentoring and induction programs are generally quite dismal" and not responsive to the unique needs of alternatively certified CTE teachers (p. 47). This is primarily because traditional programs assume prior knowledge and experience in the education field. For example, induction generally presumes completion of traditional teacher education, mentoring models generally presume one-on-one relationships between novice and veteran teachers, and professional development generally focuses on models and jargon beyond new teacher knowledge for those entering through alternative routes.

Traditional definitions, parameters, and programs no longer fit and need to be looked at more broadly (Gasner 2002). Consequently, teacher development—the meshing of teacher education, mentoring, induction, and professional development—becomes a more appropriate term and descriptor for the activities needed by novice CTE teachers (who have not completed traditional teacher education programs). New models encompassing a broader definition and spectrum of teacher development activities help CTE teachers entering from industry who often, because of limited educational preparation, experience higher degrees of job-related stress (Adams 1999). Onsite models for continuous teacher development are being created in general education, like the Career in Teaching Program in Rochester, New York (Thomas 2001), and in CTE, like the model created at St. Clair Technical Education Center (TEC) in Port Huron, Michigan. Such models may change the traditional roles and boundaries of schools, districts, and teacher education institutions.

Components of Pilot Teacher Development Models

Onsite teacher development programs incorporate five core components that foster success:

Partnerships enable schools, districts, and teacher education institutions to leverage resources of personnel, equipment, and dollars. School-university partnerships may be the most significant component to the success of new models because teacher education institutions have traditionally been one of the gatekeepers to certification via course content, sequence, delivery format, entrance requirements, etc. Business and industry partnerships guide teacher development activities such as curriculum writing and enable CTE programs to remain on the cutting edge of industry changes. Partnerships that create collegial networks for new teachers provide mentoring through support and assistance. One example is the newly created Metal Machining Instructors Group in Michigan. Initiated by one teacher, created by word of mouth, and supported by shared resources, the group includes 37 teachers who now meet three times a year to share best teaching practices, modify curriculum, and provide support and assistance to novice teachers.

Continuous support occurs primarily in two ways: emotional/psychological (Hansman 2002; Stansbury and Zimmerman 2002) and instructional—pedagogy, curriculum, teaching strategies, etc. (Joerger and Bremer 2001). This support structure is often both formal and informal—deliberately designed meetings as well as the important learning that takes place in hallways, restrooms, and lunchroom conversations. Although it is difficult to measure the impact of informal support, its significance should not be underestimated. Similarly, mentoring programs without any formal structure may be in danger of little or no impact. The lesson is acknowledging and balancing both.

Administrative commitment to support is necessary, particularly in personnel, finan-
Job-embedded teacher development activities become an institutionalized part of the teacher work day (National Staff Development Council 2002) and require creative uses of time (Richardson 2002). Examples may include creating release time for curriculum writing or teacher collaboration by hiring substitutes during the contract day, using low student enrollment days for teacher development activities, delaying start time for students, and extending the length of the traditional contract for new teachers (Beerrer 2002; Szuminski 2002).

Flexibility in teacher development program design and implementation enhances new teacher success in the classroom in many ways. For example, classroom management strategies, curriculum development, and instructional strategies are immediate needs of new teachers. Flexibility on the part of university partners and school administrators to design teacher development activities to meet these needs must be both encouraged and allowed. “A number of other policies in teacher education have to be temporarily suspended for this group of teachers. None of these changes have, or will, result in a lowering of standards, but they have resulted in the institution’s ability to respond to the needs of the TEC teachers and administrators” (Szuminski 2002, p. 31).

Indicators of Success

Indicators of the success of onsite teacher development models may include teacher retention beyond the first years, an increase in certified teachers, a reduction in student discipline referrals, improved teaching environments, teacher collaboration, teacher leadership roles, and ultimately, student achievement and success. Empirical evidence from the St. Clair (Szuminski 2002) model includes—

- The number of annually authorized teachers was reduced over a 3-year period from 71% (2000-01) to 42% (2002-03). All annually authorized teachers are scheduled to be degreeed and fully certified within the next 2 years.
- Teacher retention of the initial group was 76% at the end of year one (2000-01) and 81% at the end of year two (2001-02). Of the replacement teachers hired in 2001-02, the current retention rate is 100%. Reasons for departure include acceptance of another CTE position, personal reasons, lack of support, expectations of teaching profession that did not match day-to-day reality, dismissal, retirement, and program elimination.

Anecdotal evidence indicates improved ratings on teacher evaluation instruments based on the Framework for Teaching (Danielson 1996) and reduced discipline referrals among some classroom teachers.

As pilot models for teacher development continue to emerge, the crucial question is obviously “What is the impact on student learning and student achievement?” Research will need to go beyond evidence that these teachers remain in the field longer and answer more difficult questions about competency. Diez (2002) raises the stakes in suggesting “I’ve argued that a person could conceivably demonstrate some, most, or even all of the standards we require with little or no input from a teacher-education program...shouldn’t we be able to validate that knowledge and skill?” (p. 10). These questions remain to be answered as teacher development in all arenas changes to meet the demands of the marketplace.

References


Kathleen Szuminski is Instructional Facilitator, St. Clair Technical Education Center, Port Huron, Michigan. The report worked herein was supported under the National Dissemination Center for Career and Technical Education, PR/Award (No. V0900000004) as administered by the Office of Vocational and Adult Education, U.S. Department of Education. However, the contents do not necessarily represent the positions or policies of the Office of Vocational and Adult Education or the U.S. Department of Education, and you should not assume endorsement by the Federal Government.
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