Status of Eleacher



The old models for CTE teacher preparation are no longer producing adequate numbers of well-prepared teachers as they once did.



Perhaps it's time to

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By William G. Camp and Betty Heath-Camp

egardless of what career and technical educators may think about the No Child Left Behind (NCLB) Act, it is difficult to argue against its stated goals to improve public schools, increase student learning, and place a highly qualified teacher in every classroom. Most of us in career and technical education (CTE) would prefer that the goals be pursued using different strategies and measured using different gauges; but higher standards and better prepared teachers are worthy aspirations for the education profession.

Excellence in Education and CTE

NCLB did not start the ball rolling toward the current national obsession with high-stakes testing. In fact accountability through student achievement testing in the "basics" has been around in different guises at least since the 1950s. Calls for "more highly trained" teachers, more rigorous academic instruction, and student testing have been around at least since the Committee of Ten report in the early 1890s. What had come to be known by the early 1980s as the "excellence movement" in education looked a lot like the Committee of Ten's vision for American public education with an emphasis on the traditional

academic basics and testing. That approach was given a huge boost by the 1983 report "A Nation at Risk."

The direct effect of the excellence movement since "A Nation at Risk" was published, and NCLB, has been increased course-taking in science, math and the other traditional academic subjects by high school students in this country. Research shows that the consequence has been a loss of opportunity for many students to enroll in CTE—resulting in declines in CTE enrollments at the secondary level. With the now obvious flaws in the current approach to education reform, educators and political leaders such as California's Governor Schwarzenegger are increasingly coming to the conclusion that expanded and updated CTE programs must be included as a part of the broader public school reform movement.

Americans may be beginning to see that the regimen of high-stakes testing, without more fundamental education reform, cannot produce the outcomes its proponents promised. A 2002 report found that over the coming decade we will be facing increases in public secondary school CTE enrollments, an increasing demand for new CTE teachers, and a continuing decline in teacher education programs.

try something new.

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CTE Teacher Education

As secondary CTE enrollments began to decline, partially a result of the high-stakes testing movement, there was a fundamental shift in the federal funding patterns for CTE beginning with Perkins II in 1990. Before that, larger percentages of federal funds had been set aside for state-level leadership, and much of that money had been used to support teacher education efforts in CTE. Beginning with Perkins II, those funds were largely redirected to local schools. With the shift in funding from state-level leadership activities to local use, CTE teacher education programs were particularly hard hit in most states. The decline in secondary CTE enrollment coupled with the changes in funding patterns in Perkins II created a situation: CTE

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teacher education programs rapidly withered across the country.

As long as universities and colleges received additional funding for CTE teacher education programs, they were willing to provide CTE teacher preparation. When the funds were discontinued, many universities elected to keep funds in academic programs. In 1991, the dean of the College of Education at Virginia Tech informed a CTE faculty meeting that the funding cuts from the Virginia Department of Education, a result of the funding shift under Perkins, would result in the loss of more than one-third of the faculty positions in the program at the institution. The CTE field must use data to convince administrators in universities and colleges that CTE teacher education programs are needed to prepare qualified teachers for an area of growth and importance to the nation's

A study conducted for the National Center for Research in Vocational Education in 1991 reported that the nation's CTE teacher education programs were declining rapidly, and it predicted a shortage of wellprepared CTE teachers as a result. Quoted in a Techniques article eight years later, the study's author R.L. Lynch said, "If I were to do another study like the one I did in the early 1990s, I'll probably wind up repeating myself . . . What we need to do now is re-conceptualize the whole arena of [career and technical] teacher education." He continued later, "I do believe that if we don't have some sort of reinvention of CTE teacher education, I'm afraid it will just peter out."

In 2001, a research study was conducted to update the status of teacher education. It reported that teacher education programs had reduced by another 11 percent within 10 years. It also reported that teacher preparation programs remained traditional both in structure and delivery with two exceptions; more emphasis was being put on the integration of academic and technical education, and it was planned to double the growth of distance

education courses. These studies show that a reinvention of teacher education has not taken place since Lynch's study in 1991.

For many years, even prior to the Smith-Hughes Act, leaders in vocational education (now CTE) believed that occupational knowledge was the primary determinate of a person's ability to teach. They also believed that a person with technical skills could be a successful teacher with minimal pedagogical training—a serious downfall in our approach to teacher preparation. Occupational experience is important for a teacher to have for it does enhance the knowledge of the subject matter, but the authors of this article agree with a 2001 report by Gray and Walter that stated, ". . . it is clear that the old adage that people from the workplace are always natural teachers is hogwash." The report supported that statement by quoting the National Board for Professional Teaching Standards, "Knowledge of subject matter is not synonymous with knowledge of how to reveal content to students so they might build it into their systems of thinking. Accomplished teachers possess what is sometimes called pedagogical knowledge . . . Such understanding is the joint product of wisdom about teaching, learning, students and content."

Education researchers like Linda Darling-Hammond have been addressing an analogous issue for the broader field of education: alternative licensure programs that focus solely on content knowledge, leaving out professional preparation in educational theory and practice. In 2001, Darling-Hammond wrote in a report, "This study, in conjunction with a number of other studies in recent years, suggest that states interested in improving student achievement may be well advised to attend, at least in part, to the preparation and qualifications of the teachers they hire and retain in the profession. It stands to reason that student learning should be enhanced by the efforts of teachers who are more knowledgeable in their field and are skillful at teaching it to others. Substantial

evidence from prior reform efforts indicates that changes in course-taking, curriculum content, testing or textbooks make little difference if teachers do not know how to use these tools well, and how to diagnose their students' learning needs."

Education is facing an ongoing and worsening teacher shortage in all disciplines. This year, the National Education Association noted, "A historic turnover is taking place in the teaching profession. While student enrollments are rising rapidly, more than a million veteran teachers are nearing retirement. Experts predict that overall we will need more than 2 million new teachers in the next decade."

What Does all of This Mean for Teacher Education in CTE Today?

We have a problem in CTE teacher education! Student enrollment in public schools will continue to increase over the next decade, data suggest, and that includes enrollment in CTE courses. The nation will need a large number of new teachers in all disciplines. Both technical/subject matter knowledge and professional/pedagogical knowledge are critical for successful teachers, and that includes CTE. The old models for CTE teacher preparation are no longer producing adequate numbers of well-prepared teachers as they once did. Perhaps it's time to try something new.

The National Dissemination Center for Career and Technical Education held a series of national CTE teacher education meetings in the late 1990s. The meetings were well attended and provided CTE teacher educators an opportunity to compare notes and receive technical and professional updates. The meetings were excellent; but that kind of meeting is not what we need today. What we do need is a new CTE teacher education study similar to that conducted in 1991 by Lynch and later by Bruening, et. al, in 2001. When we obtain the results, we need to follow up the study with a multi-year CTE teacher education summit that includes CTE teacher educators; policymakers; industry representatives; teacher education leaders from the broader education field; local, state and federal education officials; university officials; and other stakeholders in the CTE enterprise. The summit should be designed to identify and develop plans to solve the problems inherent in preparing technically and professionally well-qualified CTE teachers.

Summit participants would have to look beyond traditional "teaching courses" for teachers entering CTE classrooms based solely on occupational experience. It would also have to look beyond traditional college campus-based teacher education programs. Maybe colleges and universities are no longer the place for CTE teacher preparation. Past teacher preparation approaches might have been appropriate and adequate for a different time and situation; but they may not be adequate today. If the CTE community concludes that the university and college is the best place for teacher education, then it needs assistance from college and university administrators to find out how CTE can reinstate and strengthen its teacher education.

Distance educators tout online and other technologies as the answer to this problem and clearly technologies such as those must play a part in the eventual solutions; but the authors of this article do not believe that the delivery of traditional teacher education using distance technologies will get us where we need to be in CTE teacher education. Nor is simply increasing the number of CTE teacher education programs the answer. We agree with Lynch that if CTE continues to do what it has done in the past, there will not be a very bright future for teacher education in the field. Consequently, there will not be enough teachers to meet the needs of public school systems as CTE enrollments increase.

In addition, if CTE teacher education is nonexistent, the quality of instruction in CTE programs will decline. Potential teachers and existing teachers will not have the opportunity to receive the ap-

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propriate education they need to become qualified teachers and to stay qualified teachers. If that happens, students and the nation's economy will both suffer the consequences.

A Call to Action: A Study and Summit Needed Now

A new status study will tell us where we are and a summit will give us the opportunity to develop a plan for the future and to develop strategies for implementation. The CTE community must address the quality of preparation of its teachers and students. and must make a fundamental reform of teacher education programs. This is a challenging time for CTE teacher education; but times of unusual stress can present unusual opportunities. This time of stress can be a golden opportunity for the CTE family, and particularly teacher education, to pull together and to reach out to colleges and universities and other groups that can help us. The CTE research organization (ACTER), the national CTE research center (NRCCTE), the new national CTE teacher education group (The Academy), and the Association for Career and Technical Education must collaborate to conduct the research, pull together the summit, and provide the professional development to revitalize teacher education in career and technical education.

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