

JVER v25n3 - Editorial

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**VIRAL NETWORKS**

Connecting Digital Humanities and Medical History

Edited by E. Thomas Ewing and Katherine Randall

<p>4. Include in-service training for teachers that-</p> <ul style="list-style-type: none"> <li>A. is designed to train teachers to implement Tech Prep;</li> <li>B. provides for joint training for teachers from all participants in the consortium; and</li> <li>C. may provide such training on weekend, evening, summer, or workshops.</li> </ul> <p>5. Include training programs for counselors designed to enable counselors to more effectively-</p> <ul style="list-style-type: none"> <li>A. recruit students for Tech Prep,</li> <li>B. ensure that such students successfully complete such programs, and</li> <li>C. ensure that such students are placed in appropriate employment.</li> </ul> <p>6. provide equal access to the full range of Tech Prep programs to individuals who are members of special populations, including the development of Tech Prep services appropriate to the needs of such individuals; and</p> <p>7. provide for preparatory services which assist all participants in such programs.</p>	<ul style="list-style-type: none"> <li>C. uses, if appropriate and available, work-based or worksite learning in conjunction with business and all aspects of an industry; and</li> <li>D. uses educational technology and distance learning, as appropriate, to involve all the consortium partners more fully in the development and operation of programs.</li> <li>E. Include in-service training for teachers that--</li> <li>F. is designed to train vocational and technical teachers to effectively implement Tech Prep programs;</li> <li>G. provides for joint training for teachers in the Tech Prep consortium;</li> <li>H. is designed to ensure that teachers and administrators stay current with the needs, expectations, and methods of business and all aspects of an industry;</li> <li>I. focuses on training postsecondary education faculty in the use of contextual and applied curricula and instruction; and</li> <li>J. provides training in the use and application of technology;</li> </ul> <p>4 Include in-service training for teachers that-</p> <ul style="list-style-type: none"> <li>A. is designed to train vocational and technical teachers to effectively implement Tech Prep programs;</li> <li>B. provides for joint training for teachers in the Tech Prep consortium;</li> <li>C. is designed to ensure that teachers and administrators stay current with the needs, expectations, and methods of business and all aspects of an industry;</li> <li>D. focuses on training postsecondary education faculty in the use of contextual and applied curricula and instruction; and</li> <li>E. provides training in the use and application of technology;</li> </ul> <p>5. include training programs for counselors designed to enable counselors to more effectively-</p> <ul style="list-style-type: none"> <li>A. provide information to students regarding Tech Prep education programs;</li> <li>B. support student progress in completing Tech Prep programs;</li> <li>C. provide information on related employment opportunities;</li> <li>D. ensure that such students are placed in appropriate employment; and</li> <li>E. stay current with the needs, expectations, and methods of business and all aspects of an industry.</li> </ul> <p>6. provide equal access, to the full range of technical preparation programs, to individuals who are members of special populations, including the development of Tech Prep program services appropriate to the needs of special populations; and</p> <p>7. provide for preparatory services that assist participants in Tech Prep programs.</p>
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Throughout the 1990s tech prep planning and implementation proceeded ahead of research and without much benefit from systematic evaluation. Several national

studies documented implementation of state and local tech prep policies and practices once they were set in motion, and these studies were important. They showed advancements in tech prep components over the decade, especially positive contributions to partnerships between secondary schools, community colleges, businesses, and community organizations ( Boesel, Rahn, & Deich, 1994 ; Bragg et al., 1994 ; Bragg et al., 1997 ; Hershey, Silverberg, & Owens, 1995 ; Hershey et al., 1998 ). States such as Florida ( Hammons, 1999 ), Illinois ( Bragg & Reger, 2001 ), Minnesota ( Brown, Pucel, Twohig, Semler, & Kuchinke, 1998 ), New York ( Brodsky, Newman, Arroyo, & Fabozzi, 1997 ) and Texas ( Brown, 1999 ) have reported similar results, providing a richer contextual understanding of implementation results in various state settings. Overall results suggest that tech prep has increased collaboration among professionals, especially academic and career-technical instructors and business representatives. In accomplishing this outcome, professional development and curriculum development were the twin engines of the tech prep reform, supporting collaboration and encouraging teachers to make applied and engaging instructional strategies the centerpiece of everyday practice, including emphasizing real-world workplace examples for learning traditional academic subjects.

Though some empirical studies of tech prep emerged in the scholarly literature (see, for example, Cantor, 1999 ; Farmer & Honeycutt, 1999; Pucel & Sundre, 1999), doctoral dissertations examining implementation of tech prep and how it influenced secondary and postsecondary curriculum and instruction proliferated during the 1990s. In a recent review of *Dissertation Abstracts International* , over 100 doctoral dissertations were identified involving tech prep and closely related elements such as academic and vocational integration. Indicative of research examining implementation processes were studies by Lochridge ( 1998 ) on academic teachers' perceptions of tech prep implementation in South Carolina, Bridwell ( 1996 ) on policy analysis of tech prep implementation in Indiana, and Bristol ( 1994 ) on the role and essential elements for high quality tech prep programs in Missouri. Later dissertations paid more attention to student outcomes, and these studies are especially valuable to the field. Such studies include research on the effects of tech prep on South Carolina student success in secondary schools by Donelan ( 1999 ), an examination of tech prep on student math test scores in tech prep and non-tech prep schools in Mississippi by Denson ( 1998 ), and a study of tech prep and student academic achievement in North Carolina by Warren ( 1998 ).

Without these empirical investigations, little would be known about how students have benefited from tech prep. Because of difficulties assessing the outcomes of diverse students involved in comprehensive educational experiences, research and evaluation on of tech prep has been very complex ( Elliott, 2000 ). Only recently have high school graduates who experienced a complete sequence of tech prep courses at the secondary level matriculated to the collegiate level. Though still in progress, Bragg ( 2001 ) has reported promising results of a four-year longitudinal study involving eight local consortia showing the majority of tech prep participants engaged in substantial academic and career-technical course work at the secondary level, with the majority transitioning to two-year or four-year colleges. Across all eight consortia, at least 70% of tech prep participants entered a postsecondary institution, usually a two-year college, within one to three years of high school graduation. Most students also held part- or full-time jobs, often related to their chosen career field.

Of course, no change in education is simple, and results published in the journal literature and by national studies and doctoral dissertations reveal pervasive barriers (see, for example, Bragg et al., 1997 ; Elliott, 2000 ; Hershey et al., 1998 ). Among various concerns, consortia struggle to find time for instructors to meet and engage in detailed deliberations needed to execute academic and vocational integration and articulate secondary-to-postsecondary curriculum. Moreover, while many community colleges have played a facilitative role, few have supported systemic reform across the secondary and postsecondary levels ( Grubb, Badway, Bell, & Kraskouskas, 1996 ). Some community colleges appear satisfied to use tech prep as a recruitment tool to attract qualified high school students without committing to the foundational curriculum work that is needed to change practice at the postsecondary level. Changes in curriculum and instruction throughout the entire continuum, from kindergarten to college-level, are needed to make tech prep successful, but these appear to be a continuing challenge to the entire system.

What will the future hold for tech prep and curriculum integration? With over a decade of dedicated effort made to plan and implement tech prep and integrated curriculum, it is difficult to believe that tech prep and curriculum integration will not continue well into the new century, playing some role in reforming and reshaping America's educational system. Exactly how this will happen and the long-term impact it will have is difficult to predict with certainty. Still, many of the core dimensions of the "new vocational education" ( Lynch, 2000, p. 1 ) are consistent with educational reform principles-to raise academic standards for all students and ensure that teaching is relevant and engaging-that have staying power. Increasingly, the field of career-technical education is embracing these principals because the Perkins III law advocates for them through increased accountability, but also because practitioners at the grass-roots level are intrigued by the ideas, encouraged to try them, and inspired when students' learning when they are used successfully.

Innovation is critical to the future of career-technical education and to the entire educational enterprise. Over the past decade tech prep and curriculum integration have teamed to operate hand in hand as change agents for education, and for the field of career-technical education specifically. As the future unfolds and these ideas become more commonplace, new ideas are needed to improve education and ensure that student needs are met. Whether labeled tech prep or by some other name, educators need to continue to encourage the spirit of reform generated in the 1990s and use it as a springboard for even greater positive changes in the new century. To meet the needs of students, continued innovation is vitally important, and it is incumbent on career-technical education to continue to be central to making additional improvements in the future.

## Contents of This Issue

As guest editor, I am proud to work with fellow colleagues and co-authors to offer various research-based perspectives on the evolution and influence of tech prep and academic and vocational integration during the decade of the 1990s. Emanating from various types of literature and research, our articles offer new information about tech prep and curriculum integration practices. As new ideas emerge concerning improving all of education, the focus on tech prep and curriculum integration is important, especially for career-technical education. Dedicating an issue of the *Journal of Vocational Education Research (JVER)* to research related to tech prep and curriculum integration seems entirely fitting and proper, and I am proud to have played a role in bringing these studies to the attention of the *JVER* readership. Though tech prep and curriculum integration have been addressed in prior issues, it is surprising that more articles have not appeared in *JVER* over the past several years. By dedicating an entire issue to this important theme now, we hope to make up some lost ground, assess progress, and encourage a more thoughtful dialogue on these ideas in the future.

In the first article, William Reger and I share our experiences and conclusions from research that we conducted with the Illinois Task Force on Academic and Occupational Integration. Viewing the phenomenon of academic and vocational integration through the lens of the Illinois Community College System, we present a mixed-method study that confirms earlier findings, including that academic and vocational integration at the postsecondary level often centers on applied academics. Though barriers exist, we conclude that community colleges in Illinois are attempting to implement new, more complex, and more innovative academic and vocational integration models, including multidisciplinary courses and learning communities, and these efforts should be encouraged and supported with additional resources.

In the second article, Carrie Brown describes a five-year analysis of selected outcomes of cohorts of students enrolled in public high schools in Texas, comparing three sub-groups of students based on participation in career and technology (CT) programs, including tech prep. As the original architect of Texas' tech prep system, Brown uses her vast knowledge and expertise on tech prep to assist her state with some of the most extensive state-level, outcomes-based assessment of tech prep anywhere in the nation. Brown's dedicated efforts to evaluate tech prep are unprecedented in their scope, longevity, and impact, and her studies have been identified repeatedly by the American Youth Policy Forum ( Jurich & Estes, 2001 ) as useful to understanding how youth are affected by new school-to-work reforms. Among other results, Brown's study shows tech prep students in their senior year had higher graduation rates than the comparison groups, and she concludes that tech prep is consistently making a positive difference, though sometimes small, in the academic achievement of high school students in Texas.

Donna Dare examines the blossoming literature base evident in scholarly literature, dissertations, technical reports, and other literature to understand the implementation and impact of academic and vocational integration during the 1990s. In a decade of selected literature, Dare provides a thoughtful review of implementation of applied academics, and she summarizes selected empirical studies on their effects and benefits. She shows how applied academics courses have been de-emphasized over time with applied (or contextual) teaching and learning methods rising in importance. Dare concludes that the impact of applied academics on students' academic performance and attitudes is mixed, and that more rigorous, theory-based research is needed to examine the full effects of applied academics curriculum on student outcomes.

The fourth article, published by Jim Flowers, shows results of a study to determine the effects of agricultural education student participation in the High Schools That Work (HSTW) program on reading, mathematics, and science. Students enrolled in agricultural education at HSTW sites in North Carolina were administered the National HSTW Assessment, which was based on items from the National Assessment of Education Progress (NAEP). Flowers compared scores in reading, mathematics, and science for agricultural students to scores from all students at HSTW sites and to students in college preparatory programs. His results show agricultural students involved in the HSTW curriculum failed to meet the goal of the HSTW program, but they made progress toward meeting the HSTW goals. Like other authors in this issue, Flowers recommends additional research to uncover the impact of HSTW on student academic performance.

An ex post facto study is reported by Paula Puckett and me in the fifth article in this issue, focusing on secondary and postsecondary counselors working in seven purposively selected community colleges in Illinois. The study examined relationships among counselors' personal and professional backgrounds, professional development experiences, and perceptions of roles and responsibilities in tech prep. Results showed few counselors participated in on-going, experiential professional development approaches, and that there was a mismatch between the professional development approaches they participated in and the approaches that they perceived to be most helpful to preparing them for roles in tech prep. We conclude that if counselors are to be better served by professional development and thereby more actively involved and committed to tech prep, they need to be more involved in decisions making.

Finally, William Reger IV, a Russian historian and part-time tech prep researcher, offers an interesting review of Herbert Kliebard's 1999 book, *Schooled to Work: Vocationalism and the American Curriculum*, 1876-1946. After providing a thorough review of Kliebard's main thoughts, Reger offers some helpful comments about parallels between the historical development of vocational education and the new vocationalism manifested in tech prep and the integration of academic and vocational education evident in today's schools. His writing provides a valuable closure to this issue of *JVER* as it addresses the past, present, and future in a most thoughtful and stimulating way.

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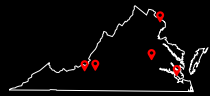
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## Author

DEBRA D. BRAGG is associate professor, Human Resource Education and Educational Organization and Leadership, College of Education, Room 345, University of Illinois at Urbana-Champaign, Champaign, Illinois 61820, [E-Mail: [d-braggi@uiuc.edu](mailto:d-braggi@uiuc.edu) ]. Dr. Bragg's research interests include student transition from high school to college, tech prep education, and other public policies that link academic and vocational education.



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


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