The National Dissemination Center's Need Sensing/Future Scanning program collects opinions from a broad spectrum of stakeholders in career and technical education (CTE) and uses them to guide research, dissemination, and professional development activities that are responsive to the field's needs. In year 3 of the program, professionals and stakeholders from across the United States were invited to participate in teleconferences and online surveys to elicit a deeper understanding of recurring themes related to the following issues: accountability; student achievement; the image of CTE; diversity; and other emerging needs. The teleconference and survey participants expressed particular concern that the terminology and indicators used to measure accountability are inconsistent within and across states, regions, and the nation, and they called for a national-level meta-analysis of data already collected to promote development of uniform research and dissemination processes. The participants also called for longitudinal studies to answer questions regarding accountability, student achievement, and issues of articulation, and they saw an urgent need for reliable assessment tools and processes for measuring student performance and achievement that allow for diversity in learning styles and abilities and the unique contributions of learners in CTE programs and courses. Twenty-seven specific areas requiring additional research were highlighted. (4 references)
Need Sensing: Developing a Responsive CTE Research and Dissemination Agenda
In Brief: Fast Facts for Policy and Practice No. 22

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Effective research and dissemination efforts have two goals: to provide leadership for new directions in the field and to support solutions to real problems. The National Dissemination Center’s Need Sensing/Future Scanning program collects ideas and opinions from a broad spectrum of stakeholders in career and technical education (CTE) and uses them to guide research, dissemination, and professional development activities that are responsive to the field’s needs (Lewis, 2000, 2001).

In year 3 of the program, professionals and stakeholders from networks across the United States were invited to participate in teleconferences and online surveys. The teleconference and survey questions were designed to elicit a deeper understanding of recurring themes identified in the first 2 years of the program; they were aligned with the themes of education prioritized by the U.S. Department of Education (Office of Vocational and Adult Education 2002; USDE 2002). Specifically, participants were asked to respond to questions related to—

- accountability
- student achievement
- the image of CTE
- diversity
- other or emerging needs

Identified Needs in Research

Meeting accountability demands is an increasingly complex task as data are requested in a variety of ways by local boards, state agencies, accrediting organizations, and educational institutions in terms of business and industry standards. Need sensing participants expressed concern that the terminology used and the indicators measured are inconsistent within and across states and regions and across the nation as a whole. Although volumes of data are collected nationally, there is a need to develop uniform methods or processes for articulating or sharing those data to inform decisions effectively, improve programs, and better serve students. Participants recommended national-level meta-analyses on data already collected.

Participants recommended conducting longitudinal studies to answer the questions of accountability, student achievement, and issues of articulation. Sound quantitative research and descriptive studies are needed to support what amounts to anecdotes of success. Specifically, research is needed to demonstrate how CTE contributes to student academic achievement and success in the workplace. Participants suggested examining both achievement and workplace success from a business and industry point of view. Participants also pointed to the need for research in two general areas of concern related to articulation: (1) continuity of learning as students move from secondary to postsecondary programs and on to higher education or the workplace, and (2) programmatic and institutional issues related to transfer of credits, certification, and degree attainment.

There was considerable discussion around the concept of achievement: what it is and how it should be measured or assessed. There are growing concerns related to “high stakes” standardized testing and how to assess CTE students and programs. Participants saw an urgent need for reliable assessment tools and processes for measuring student performance and achievement at all levels and for assessments that provide accurate empirical data and also take into account diversity in learning styles and abilities and the unique contributions of learners in CTE courses and programs.

Identified Needs in Dissemination and Professional Development

Professionals and stakeholders alike are requesting information that offers a clear picture of what is happening in CTE and a cohesive message that can be shared with students, parents, counselors, policymakers, and the media. Participants also recommended—

- Increased dissemination of research to a broader audience
- More web-based professional development
- Additional regional-level outreach by the National Centers
- Expanded efforts in the area of leadership development

Although some progress was noted, participants indicated that perceptions of CTE as a second-best education persist. There was an overall sentiment that the image concerns could be addressed if more research demonstrating CTE contributions to student achievement and earning potential were conducted and broadly disseminated. Participants also requested the need to reach parents, students, and school counselors with accurate research and career information at critical decision-making times. Web-based support, such as development of a parent/student friendly website was recommended. Offering information and professional development opportunities for guidance counselors and administrators at all levels was also suggested.

Budget constraints limit the ability of many CTE professionals to attend conferences and thus maintain connections with others at a national level. There is increased interest in web-based professional development activities and opportunities; at the same time, there remains a desire for person-to-person professional networking. Thus, participants have requested fewer, carefully planned conferences that allow for maximum professional interaction and networking. They have also indicated a need for increased dissemination of executive summaries, “cheat sheets,” and links to help them keep abreast of the latest research findings.

When participants were asked about diversity, needs were frequently expressed in terms of professional development and support. Recognizing that issues of diversity are complex and contextual, varying greatly by community, region, and organization, participants requested access to basic information about diversity, model programs, and curriculum. They desired professional development opportunities that would help them increase skills in working with nontraditional students, special needs students, and populations with limited English proficiency. It is also clear that more efforts are needed to increase diversity in CTE faculty and leadership roles.
Selected Ideas and Opinions from the Field

Accountability

- Identify and measure a few select standards/indicators across states
- Conduct national-level, meta-analyses using existing accountability (Perkins) data
- Provide professional development opportunities to help CTE professionals move accountability efforts beyond compliance
- Synthesize and disseminate information about standards at all levels, from all sectors
- Disseminate information about alignment of CTE curriculum with standards at all levels

Student Achievement

- Conduct longitudinal studies that demonstrate CTE contributions to academic achievement and employment successes
- Document anecdotes and success stories of student achievement with carefully developed quantitative research and descriptive studies
- Conduct research that demonstrates the effectiveness of exemplary programs, particularly integration efforts, and the strategies and best practices embedded in those programs
- Investigate what business and industry has to say about the workplace performance of CTE completers
- Examine articulation issues and identify models that support and increase collaboration
- Develop and disseminate reliable assessment tools and strategies for measuring students’ abilities

Image of CTE

- Conduct research at the secondary level to learn more about students’ selection of courses that lead to career pathways in CTE
- Conduct longitudinal, comparative studies on employment and income of postsecondary graduates in CTE and 4-year college graduates
- Broadly disseminate success stories supported by research
- Reach parents, students, and guidance counselors with accurate information at the elementary, middle, and secondary levels when career decisions are being made
- Provide professional development for key non-CTE personnel including guidance counselors, administrators, and academic professionals
- Support and improve CTE teacher preparation for the secondary levels

Diversity Issues

- Gather more data on the current status: What populations does CTE serve?
- Conduct research and examine data related to nontraditional student populations
- Locate and disseminate bibliographies, glossaries, and curriculum models related to diversity
- Increase interaction with organizations that represent diverse populations
- Provide professional development related to special needs
- Sponsor initiatives to increase diversity in faculty and leadership roles

Other or Emerging Needs

- Support recruitment, retention, and professional development of CTE teachers—shortages are an urgent concern
- Continue and expand efforts in leadership development
- Research the problems of certification versus degree attainment
- Increase collaboration and partnerships with business, industry, and labor

References


The Need Sensing/Future Scanning Program is a project of the National Dissemination for Career and Technical Education. The final report of this project will be available at http://nccte.org.

At the University of Minnesota, Donna Pearson directs the Need Sensing/Future Scanning Program of the National Dissemination Center and Barbara Champlin is a Research Assistant in Work, Community, and Family Education.

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