The work reported herein was supported under the National Research Center for Career and Technical Education, PR/Award (No. V051A070030) 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.
WHAT DO YOU CONSIDER TO BE THE MOST PRESSING PROFESSIONAL DEVELOPMENT NEEDS OF SECONDARY CTE TEACHERS?
Rojewski’s Conceptual Framework for CTE
This figure is from a PowerPoint presentation given by Rojewski to the Kentucky Career and Technical Education Conference, February 5, 2009.
National Teaching Standards

NBTS (CTE) Categories
- Creating a productive learning environment
- Advancing student learning
- Helping students transition to workplace and adult roles
- Improving education through professional development and outreach

INTASC (State Education Agencies and Ed. Orgs)
- 10 principles for what the new teacher should understand, use and plan
- Translation of core standards into model licensing standards for each discipline; CTE not addressed
National Staff Development Council Standards: Beliefs

- Every student learns when every educator engages in effective professional learning.
- Schools’ most complex problems best solved by educators collaborating and learning together.
- Remarkable PL begins with ambitious goals for students.
- Professional learning decisions are strengthened by diversity.
- Sustainable learning cultures require skillful leadership.
- Student learning increases when educators reflect on professional practices and student progress.
Your responses summarized
Critical Needs Identified by NRCCTE

- Responses to Changes in Technical K&S Demands
- Integration of academic and technical content
- Research-based instructional strategies
- Standards-based instructional planning
- Assessment strategies
- Management of diverse classrooms
Changes in Technical K&S Demands

- New occupations stem from technological advances, legislation, changed demographics
- Emerging occupations often multi-disciplinary, specialized, and/or international
- Evolving occupations involve changing tasks that require new/additional skills
- Green occupations in sectors such as:
  - energy conservation and generation
  - environmental conservation
  - construction
Integration

- Perkins IV
  - Technical content aligned with challenging academic standards
  - CTE students meet academic standards for NCLB

- Common core standards
  Specific 11-12 grade standards for science and technical subjects in reading and writing

- College readiness ≠ Career readiness
  ACTE — NASDCTEc — Partnership for 21st Century Skills

*Up to the Challenge*
Research-Based Instruction

- Project/Problem-based learning
  Buck Institute for Education
- Cooperative learning
- NRCCTE tested approaches
  - Math-in-CTE
  - Literacy-in-CTE
Standards-Based Planning

- Standards
  - Industry-Based
  - Common Core
- Instructional Goals
- Lesson Plans
- Instruction
- Assessment
Classroom Management

- Increasingly diverse students
- Teaching special needs students
- Formal induction including
  - Mentoring
  - Workshops
  - Continuous orientation
  - Handbook
  - Help hotline
Formative Assessment for Learning by Teachers

<table>
<thead>
<tr>
<th>Knowledge Measures</th>
<th>Performance Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple choice</td>
<td>Checklists</td>
</tr>
<tr>
<td>True-false</td>
<td>Rating scales</td>
</tr>
<tr>
<td>Completion</td>
<td>Rubrics</td>
</tr>
<tr>
<td>Matching</td>
<td>Portfolios</td>
</tr>
<tr>
<td>Essay</td>
<td>Other authentic tasks—competitions, work samples, employment-based</td>
</tr>
</tbody>
</table>

**Topics for which PD is needed**
Source: 2008 HSTW special analysis of data from teachers with five years or less experience

<table>
<thead>
<tr>
<th>Topic</th>
<th>% teachers indicating need</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developing rubrics in academic content areas</td>
<td>47</td>
</tr>
<tr>
<td>Using performance assessment</td>
<td>44</td>
</tr>
<tr>
<td>Using student portfolios</td>
<td>52</td>
</tr>
</tbody>
</table>
Summative Assessment of Student Learning and Program Evaluation

- Perkins IV mandates measures of “student achievement on technical assessments that are aligned to industry-recognized standards.”
- Third-party technical skills assessments allow for objectivity, secure items, comparisons across groups.
- If pre-post sequence, can be used for formative as well as summative purposes; informs student or class improvements in instruction.
- Results inform year-to-year program changes.
- Important that educators know how to analyze and interpret data.
NRCCTE PD Projects

Currently offering technical assistance:

- Math-in-CTE
- Authentic Literacy-in-CTE

Moving soon to technical assistance:

- Science in CTE
- Alternative Licensure Career/Technical Teacher Induction Model
- Professional Development for Educators on the Use of Assessment Data (CTEDDI)
Career and Technical Educators Using a Data Driven Improvement Model
Instructional Improvement Cycle

5 Steps

1. Collect Data
2. Analyze Data
3. Verify & Corroborate
4. Design Action Plan
   To improve learning and instruction
5. Implement Plan & Review Outcomes
   (ONGOING)

Workshop Goals

LEARN TODAY:
- Data sources available
- How to use data
- Assessments (types of assessment, terminology, how assessments are developed)

OUTCOME of Workshop:
Action Plan
To improve learning and instruction
CTEDDI: Career and Technical Educators Using Data Driven Improvement Model

In an NRCCTE-sponsored research study, NOCTI investigated how educators are prepared to use assessment data to improve programs and to target individual and group instructional needs in the secondary-level career and technical education (CTE) classroom.

Findings from the research on 1) professional development and 2) educator use of assessment data were used to create a professional development program geared toward secondary CTE teachers and administrators on how to effectively interpret assessment data and use it to make instructional improvements in the classroom.

CTEDDI will be available to states in 2011-2012.

Interested in signing up for your state to participate in the CTEDDI professional development? Email nrccte@louisville.edu with your contact information. We’ll get in touch with more details as they develop.

NOCTI's CTEDDI professional development will provide educators from participating states with professional development tools. This program uses proven research strategies to increase a teacher's skills and knowledge in using technical assessment data for instructional improvement.

The professional development will be delivered by facilitators who will also serve as coaches for the educators for applying their initial training at their school sites.

Jumpstart Programs at Both 2011 HSTW & ACTE
Visit http://www.nrccte.org/

To discuss your questions, email Sandy.Pritz@nocti.org or mvlewis13@gmail.com

Thank You for Coming!