

# National Center Research on the Use of Assessment Data

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# Disclaimer:

The work reported herein was supported under the National Research Center for Career and Technical Education, PR/Award (No. VO51A070003) 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.*



# Primary Topics



- **Data-driven decision making in career-technical education**
- **Professional learning related to use of technical skills assessment data**

# Why NOCTI?

- **Non-profit with a primary focus on improvement in CTE through use of technical assessment**
- **First formed to assure teacher quality**
- **Study does not directly involve assessments, but professional learning, which is a public service offshoot**





## Objectives—Last year

- Investigated the extent of and processes for CTE educator use of technical assessment data to inform instructional decisions and the sources of their knowledge that enables them to do so
- Examined the types of professional development that CTE educators have received related to the primary objective and how they have been applied

# Objectives (continued)

- Investigated how CTE administrators and teachers rate types and characteristics of PD they desire for this purpose, to establish criteria
- Current fiscal year, to develop and pilot professional learning (PL), the new term for what was known as professional development, that meets the criteria
- Future years, to offer the PL to states that request it





# Study Design

- **Survey research in 5 selected states with 4 selected CTE programs**
- **Administrator survey emailed to all CTE center directors and a sample of comprehensive high school CTE directors with the 4 selected programs**
- **Teacher survey distributed by these administrators to the teachers in the 4 selected program areas**
- **Support letter from State Director included with surveys**
- **Gift cards given to respondents**



## Sample Topics of Survey Questions

- Do directors/teachers use technical assessment score data to make instructional decisions? (If so, how?)
- Who directs the process?
- How did they learn to do so? (check PD types)
- Have integrated academic and/or academic test scores been included?
- What were advantages/disadvantages of PD type?
- What examples can they give of instructional changes made?

# Some Findings

- Respondents indicated large majority use end-of-program tests
- About 1/3 have not received any PD on data use
- Respondents felt training with follow-up was needed
- Data interpretation high on the needed skill list
- Peer interaction desired in delivery of PD
- Case studies show positive gains

**Figure 1**  
**Changes Made in Instruction of the Class as a Whole Based on Data**  
**(check all that apply)**



**Figure 2**

**Examples of Changes Made With Individual Students Based On Data  
(check all that apply)**



# Related Case Studies

“CTE programs in XXX are relatively new to the data driven process and have been using assessment data for about two years. They have noted a need to improve/upgrade labs and facilities to coincide with industry testing and certification. In addition, they have begun to focus on student retention of information. They have also noticed programs in the area of early childhood education increasing their results steadily each year. They have determined that they need about four years of data to begin to see real longitudinal trends. In essence, XXX is becoming much more sophisticated in the use of data for improvement of instruction.”



# Related Case Studies (cont.)

“Their longitudinal use of data has given them the ability to predict success of new teachers, effects of long-term substitutions, and better indicators of the type of teacher to hire. The administrators and staff have collaboratively been able to “drill down” to find “root causes” of curricular issues impeding program improvement. There is a solid understanding of the relationship between standards, assessment data and program improvement. It is clear that this site has incorporated the use of assessment data into its overall philosophy and that they provide an excellent role model for other sites.”



# What are we doing with these data?



- **Combining them with our literature search information and the other NRCCTE professional learning project work to create a highly interactive professional learning opportunity to respond directly to the needs**
- **Piloting the PL in the same five states**
- **Providing the PL to all who request it on a cost-recovery basis in future years of the NRCCTE**

# Methodology and Sample

- Create PD to be delivered to 9 sites in the 5 states
- Delivery through in-state facilitator
- Start 5 sites early and collect iterative data for PD refinement



# Methodology and Process

- Use a social networking site as a means of building a community of practice
- Use pre-test, post-test, questionnaires, facilitator surveys, self reported perceptions
- Involve 24-40 individual educators



# The Professional Development Paradigm in Practice from the Math-in-CTE Study (Pearson et al.)

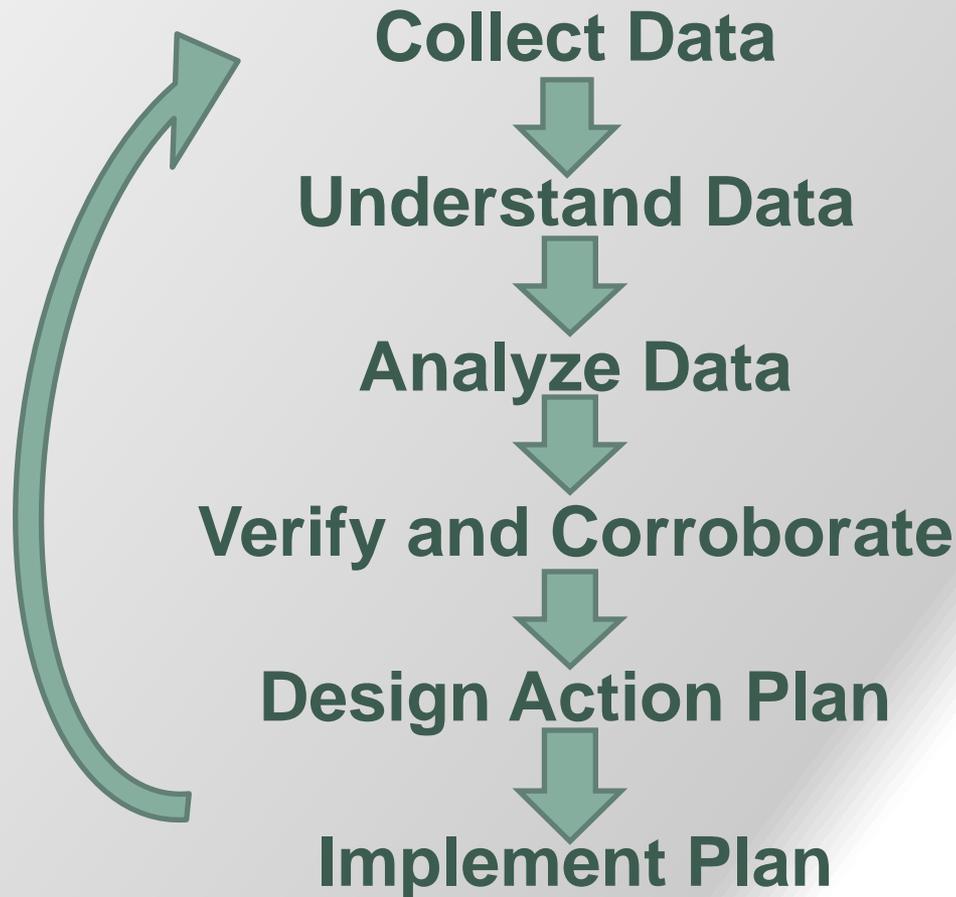
## *Old Model*

- A *box* of curriculum
- Short term “training”
- Little or no support after the “sage on the stage” goes away
- Replicable by individual teachers (assumed)

## *New Model*

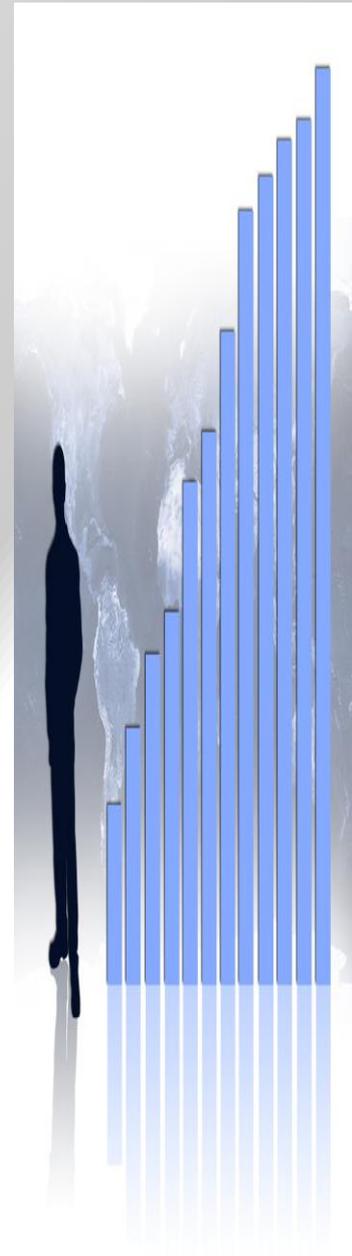
- Process, not an event
- Built on communities of practice
- On-going support; the learning curve
- Teams of committed teachers working together over time

# Instructional improvement model for use of assessment data



# Sample Content of Educator Training

- Common assessment terms
- Sample reporting formats
- Methods of interpreting data
- How to interpret data in an applied setting
- External factors that can impact test scores and trends over time
- Strategies for using data
- Emphasis on interactive activities, contextualized to participants' own school
- Follow up in terms of an action plan



# Research Questions

- **Have educators increased knowledge on technical assessment?**
- **Can educators apply new knowledge?**
- **Will educators be motivated to continue to apply new knowledge?**

# Resources from the Center



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## CENTER PRIORITIES

Engagement

Achievement

Transition

Home > About the Center > Professional Development - Publications

### Professional Development - Publications

Castellano, M., Harrison, L., & Schneider, S. (2008). State secondary CTE standards: Developing a framework out of a patchwork of policies. St. Paul, MN: National Research Center for Career and Technical Education. [\(PDF, 1,049KB\)](#)

Lewis, M. V., & Pearson, D. (2007). Sustaining the Impact: Follow up of Teachers Who Participated in the Math-in-CTE Study. St. Paul, MN: National Research Center for Career and Technical Education. [\(PDF 1,139KB\)](#)

Stone, J. R., III, Alfeld, C. Pearson, D., Lewis, M. V., & Jensen, S. (2006). Building academic skills in context: Testing the value of enhanced math learning in CTE (Final study). St. Paul, MN: National Research Center for Career and Technical Education. [\(PDF 3,181KB\)](#)

Stone, J. R., III, Alfeld, C. Pearson, D., Lewis, M. V., & Jensen, S. (2005). Building academic skills in context: Testing the value of enhanced math learning in CTE (Pilot study). St. Paul, MN: National

### CENTER ISSUES

- Programs of Study
- Curriculum Integration
- Math-in-CTE
- Dual Enrollment
- Dropout
- Accountability

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***Thank You for Coming!***