

PENNSYLVANIA CTE *Best Practices Initiative*



The ***Pennsylvania CTE Best Practices Initiative*** is documenting the promising practices that Pennsylvania Career and Technical Education administrators and teachers are utilizing as they work to improve program quality and student results.



MEEDER
CONSULTING GROUP

Today's Goals

- Provide overview of the Pennsylvania CTE Best Practices Initiative
- Review key best practices in CTE in use across the Commonwealth
- Discuss opportunities for knowledge sharing



About Meeder Consulting Group

The Meeder Consulting Group, LLC, since 2005 conducts research on promising education practices re: high school improvement and workforce preparation, advises state governments and national education organizations on education policy.

Hans Meeder 25-year career in education public policy and research

U.S. Department of Education, Deputy Assistant Secretary for Vocational and Adult Education

National Alliance of Business, VP for Workforce and Postsecondary Education

Executive Director, 21st Century Workforce Commission

U.S. Congress, Staff to the Committee on Education and Workforce



Pennsylvania CTE by the numbers

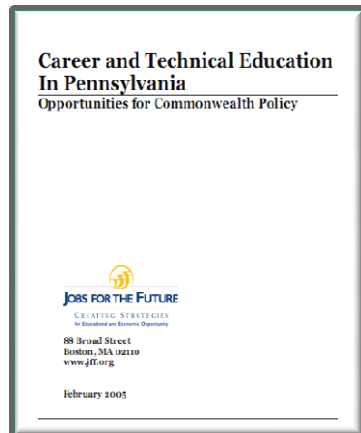
CTE offered in 85 regional technology centers and over 300 high schools

12 centers provide comprehensive academic and technical courses; all others are part-day programs.

Approximately 78,000 secondary students taking CTE courses; over 76,000 postsecondary students and over 22,000 adult CTE students



Recommendations from 2005 Review



Insist on higher academic standards for all CTE programs

Further integration of CTE with secondary school reform

Adopt nationally recognized industry standards and assessments

Align CTE to market labor trends



Pennsylvania Technical Assistance Project



Improving Academic and Occupational Achievement in Career and Technical Education

34 regional tech centers participating

Purpose: ***increase the quality and impact of CTE programs, while ensuring programs are aligned with Commonwealth's economic and workforce development priorities.***

Focus on increasing PSSA achievement and CTE end-of-program assessments.

Each school develops an improvement plan



About the Pennsylvania CTE Best Practices Project

- **Purpose:** To document promising practices in Pennsylvania Career and Technical Education (CTE), especially practices that impact key outcomes like improving student academic achievement, increasing retention and graduation, and promoting college and tech college participation.
- Site visits with in-depth case studies and profiles of promising practices
- Resource tool-kits and implementation guides to help other CTCs replicate the key practices identified.



13 Key Strategies Supporting a Standards Aligned System

Instruction

1. Integrate literacy and numeracy strategies into CTE
2. Build relevance through cross-curricular linkages

Intervention

3. Provide extra help to strengthen academic and/or technical skill performance
4. Implement extensive student support and guidance



13 Key Strategies Supporting a Standards Aligned System

Curriculum Framework

5. Develop a standardized and aligned curriculum

Fair Assessment

6. Use assessment results to target instructional strategies



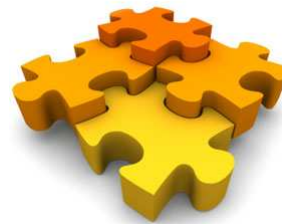
Support Standards Aligned System through People

- 7. Build a culture of targeted and ongoing professional growth
- 8. Center teacher evaluation within a culture of professional growth
- 9. Develop a cohesive team



Support Standards Aligned System through Processes

- 10. Be intentional and systemic about change
- 11. Make program and instructional decisions based on data



Support Standards Aligned System through Partnerships

12. Cultivate relationships with community and business and industry partners

13. Strengthen relationships with education partners



Collaborative CTE/academic integration

Erie County CTC

Goal: Embed literacy and numeracy strategies across the school

Overview: Establish standing committees for literacy and numeracy in 2008-2009 and hired literacy Coach

Formal Literacy Plan

- Create a literacy-rich culture in each CTE program
- Increase writing skills
- Increase reading skills and content literacy (equivalent of 12.5 books/year)
- Practice speaking and listening skills
- Train all staff members to use differentiated teaching strategies and incorporate Higher Order Thinking (H.O.T.) skills into lessons
- Incorporate assessment/progress monitoring

Literacy initiatives on a weekly basis

- Sustained Silent Reading
- Reader Response Days
- SAT vocabulary development



Collaborative cte/academic integration

Erie County CTC

Numeracy strategies:

- Math problem of the day
- Math vocabulary and word board
- Weekly challenge tests
- Math coach
- “Numeracy Pyramid” with 3 levels of intervention
 - Level 3: Universal Interventions
 - Level 2: Strategic Interventions
 - Level 1: Intensive Interventions

Professional Skills Program

- All CTE programs participate
- Designed to develop and strengthen employability skills
- Comprised of 3 courses:
 - “Leadership Principles”
 - “Business Principles”
 - “Total Quality Principles”



Valuing CTE/academic integration

Reading Muhlenberg CTC

“You can’t integrate academics if you just turn on the lights and go to work. You have to teach.” (School Director Gerald Witmer)

“We have to integrate literacy and numeracy. It’s within our trades and it’s very important for them (students) to understand that.” (CTE teacher)

One welding instructor observed that as he began to spend more lesson time on literacy and numeracy strategies, his **students became more proficient and independent in learning their technical skills**. As a result, when students participated in their applied work in the lab (or "shop"), they had fewer questions for the instructor.



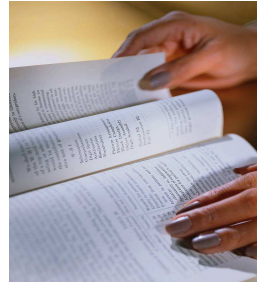
Standardized and aligned curriculum

Lehigh CTC

Goal: Use curriculum redesign to drive consistency and effective teaching

Overview: Achieve standardized curriculum development, delivery and evaluation process for all CTE programs

- The process addresses how to create a curriculum that
 - aligns academic and technical standards,
 - integrates literacy and numeracy skills,
 - and can be organized around a series of learning tasks.



“Curriculum is the heart of any school. The better your curriculum...the better your school.” (Elsie Bell, the Director of Curriculum and Instruction)



Lehigh CTI's curriculum process, continued

1. Create a **course description**.
2. Identify the **career objectives** for the course based on O*Net (USDOL tool)
3. Develop a **task list** using state and national certifications, to identify the tasks on which a student must attain proficiency. According to Ms. Bell -- **the most important step in the process, and it drives every other phase of the curriculum model.**
4. Based on career objectives, develop a **task grid**. The grid outlines the tasks students must accomplish to meet specified career objectives. Gives students the BIG picture.
5. Identify the relevant **Pennsylvania academic standards and eligible content** that aligns to the CTE content.



Lehigh CTI's curriculum process, continued

6. Create **learning guides** to help organize the curriculum. Learning guides include the following components:
 - The task(s) to be taught and the purpose of the lesson;
 - The expected learning outcome for students;
 - Specific academic and technical objectives of the lesson;
 - Resources required to teach the lesson;
 - Learning activities; and
 - Performance evaluation criteria.
7. Develop **task tracking system** to record student progress.
8. Create a **performance assessment log (PAL)** for students to use to track their individual progress. The PAL is a student-friendly version of the learning guide.



Culture of targeted and ongoing professional growth

Lehigh CTI, Reading Muhlenberg, Jeff Tech



Goal: Offer relevant job-embedded professional development using in-house resources

Overview: Two primary approaches to the delivery of professional development:

- 1) Instructional coaches and
- 2) Afterschool "Educator Academies" lead by staff members.

LCTI has "a lot of talent...we feel that if we can use the resources we have in house that helps with the sustainability." (Elsie Bell, the Director for Curriculum and Instruction states)



Growth-orientated teacher evaluation

Reading Muhlenberg CTC

Goal: Create growth-focused environment for teachers

Overview: Developed an alternative teacher evaluation pilot for tenured teachers with previous satisfactory ratings

- 1st: Teachers and supervisors review 45 features related to teaching and learning.
- 2nd: They meet to discuss ratings and decide on a final rating for any of the features.
- 3rd: Based on agreed upon ratings, jointly develop goals for the teacher.

The evaluation program also can identify features on which a majority of teachers would benefit from additional support.



Intervention / Alert Forms

Indiana, Northern Westmoreland, Susquehanna, Others

- **Goal:** To alert struggling students and their parents of students' academic performance
- **Overview:** Students who fall below a certain grade (74% / 76%) are issued a form on a weekly / bi-weekly basis
- A copy of the form also goes to parents, special education instructors, sending school principals and guidance counselors, and a central CTC database
- Instructors and tutors work with student to develop a Plan of Action / Intervention
- Student performance is monitored and follow-up forms are issued, if necessary



Career Counseling Sessions

Bedford

- **Goal:** Develop an individualized Career Action Plan for the students
- **Overview:** Based on a program developed at Columbia-Montour AVTS
- Sessions will be conducted for every tenth grade student participants: instructor, student, parents
- Instructors to be trained on facilitation strategies
- discuss student performance, learning and career goals, and the post-secondary options based on these two factors and use this info to develop Career Action Plan



PR Campaign for Assessments

Bok Tech, Columbia Montour, Jeff Tech



- **Goal:** To boost students' performance and feeling of ownership related to the PSSA and other assessments
- **Overview:** Provide formal opportunities for students to provide input on how to improve the test-taking process / environment
- Promote the importance of the PSSA and assessments through banners, announcements, cafeteria tray liners, posters, etc.
- Celebrate PSSA / assessment success through ice cream parties, dances, etc.



Next Steps: Statewide Professional Learning Communities (PLCs)

- Peer-to-peer learning and collaboration opportunity for administrators and school/teacher leaders
- Five PLCs, each focusing on a particular topic:
 - *Academic and Cross-Curricular Integration*
 - *Using Data as a Tool for School Improvement*
 - *Instructional Support and Student Guidance*
 - *Instructor Professional Growth*
 - *Education Partnerships*
- Anticipated to meet bi-weekly, via webinar and/or phone conference, during the period of January – May 2011



Discussion and Application



Standards Aligned System



People



Processes



Partnerships

Institute for 21st Century Leadership

Developing the Next Generation of Education Leaders



Institute for 21st Century Leadership

Helps Current and Emerging Education Leaders Develop Five Competencies:

- Leading with a compelling vision of Academic/CTE Convergence
- Strengthening your personal foundation
- Empowering your organization
- Creating instructional leadership at all levels
- Building community connections



Institute for 21st Century Leadership



Leadership development events held in conjunction with:

- ACTE Annual Convention (December 2010, Las Vegas)
- ICLE Leadership Academy (2011, San Diego)
- ICLE Model Schools Conference (June 2011, Nashville)
- 6 webinars
- Professional learning communities
- Membership covers conference registrations

For information, go to www.21Leader.com

PENNSYLVANIA CTE *Best Practices Initiative*



Project information at: PACTA website

www.careertechpa.org

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