What do Mature Programs of Study Look Like? Findings From A Longitudinal Study

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Disclaimer

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- NRCCTE funded by OVAE

The findings and conclusions presented here are those of the authors and do not necessarily represent AED, NRCCTE, or OVAE.
Structure of the session

20-minute sections (60 minutes total):

1) Presentation of research study
   ◦ Purpose
   ◦ Sample and design
   ◦ Preliminary observations
   ◦ Next steps

2) Small group breakout sessions
   ◦ Discuss local challenges and successes

3) Large group report-out and discussion
   ◦ Recommendations for research
   ◦ Recommendations for policy and practice
Incorporate secondary education and postsecondary education elements;
Include coherent and rigorous content aligned with challenging academic standards and relevant career and technical content in a coordinated, non-duplicative progression of courses that align secondary education with postsecondary education to adequately prepare students to succeed in postsecondary education

*Section 122(c)(1)(A)*
May include the opportunity for secondary education students to participate in dual or concurrent enrollment programs or other ways to acquire postsecondary education credits; and

- Lead to an industry-recognized credential or certificate at the postsecondary level, or an associate or baccalaureate degree.
Purpose

- Longitudinal study of “mature” POS sites
  - Identify components and processes important in successful development and implementation of POS
  - Map the findings back onto Perkins IV legislation

- Why?
  - (1) to provide policymakers with feedback on the feasibility of POS, and
  - (2) to provide models and guidelines for successful POS implementation at other sites.
8 recommended sites “scouted” (site visits)

3 selected sites for longitudinal study
- “Desert” college – culinary arts, film crew technician, construction technology,
- “Northern” college – automotive technology, welding
- “River” college – industrial maintenance, mechatronics
## Study Site Characteristics

<table>
<thead>
<tr>
<th>Community</th>
<th>Area served</th>
<th>Enrollment</th>
<th>Students</th>
<th>Dual enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>Full-time status</td>
<td>Minority</td>
</tr>
<tr>
<td>City population</td>
<td>Region</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>521, 999</td>
<td>Southwest US, large, urban-serving multicampus</td>
<td>22,759</td>
<td>6,898</td>
<td>53%</td>
</tr>
<tr>
<td></td>
<td>1 large school district (13 regular high schools, 9 alternative schools, 22 charter schools) and 8 other districts.</td>
<td></td>
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</tr>
<tr>
<td>66, 948</td>
<td>Upper Midwest, small town serving mostly rural</td>
<td>3,909</td>
<td>2,455</td>
<td>&lt;6%</td>
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<tr>
<td></td>
<td>Serves multiple districts, but primarily 5-6 high schools in 3-4 surrounding districts</td>
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<tr>
<td>55,516</td>
<td>Midwest, small town serving mostly rural</td>
<td>5,435</td>
<td>1,658</td>
<td>4.5%</td>
</tr>
<tr>
<td></td>
<td>14 high schools (including 2 vocational centers) across 6 counties</td>
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</tbody>
</table>
4 years, 2 student cohorts

Mixed methods

- **Quantitative Data**
  - Student surveys
  - HS and college transcripts

- **Qualitative Data**
  - Student focus groups
  - Interviews with Faculty, Administrators, Industry Reps
Design

Two cohorts to be followed for 4 years each

Current stage
Qualitative Data

- **Student focus groups**
  - Reasons for selection of POS
  - Perceptions of POS (positive/negative)
  - Role of POS in career plans
  - Recommendations for improving the POS

- **Teachers & Administrators**
  - Role of state and local stakeholders in POS
  - Challenges and catalysts in implementation
  - Content standards, assessments
  - Articulation agreements, dual enrollment
Analysis

Quantitative*
*Low sample size = limited conclusions (supplemental, exploratory information only)
Is POS participation in HS a predictor of...
  • HS graduation?
  • College enrollment?
  • College completion?
  • Employment in career area?

Qualitative
  ◦ Rich case studies of 3 communities
  ◦ “Backward mapping” of POS, with analysis of fit with legislative components
START

1. Find “mature” sites that have demonstrated this outcome

2. Determine the post-secondary elements that supported this outcome

3. Determine what supported the transition of students from high school to post-secondary in that site

4. Determine what guided students into and through the POS in high school

BACKWARD MAPPING

HYPOTHESIZED CONTRIBUTORS AT EACH SUCCESSIVE LEVEL
(Testing, rather than assuming, their existence and relationship)

- Strong curriculum? Industry Ties to Program? Career Guidance/Placement?
- Articulation agreement? Dual credit?
- Counseling/Guidance?
- Mastery of academic skills (to pass entrance/placement tests)?
- CTE program of study aligned in sequence to prepare students for post-secondary level?
- Curriculum integration?
- Guidance/IGP?
- Work-based learning?
- CTSO participation?

POLICY OUTCOME OF INTEREST

Employment in Industry

Post-secondary degree or credential
What are your current responsibilities in the POS? Did you play a role in the development of this POS? If yes, what was your role?

Who led development of the POS? Who else participated? (who are key stakeholders—e.g., employers, post-secondary administrators and faculty, and secondary administrators and faculty—and the roles played by each.)

How long did it take to develop the POS? When was it first offered to students?
What challenges were encountered in developing the POS? (why and how?) How were they resolved?

What factors helped expedite or facilitate development of the POS? (why and how?)

What would you do differently in developing another POS?

How is the POS aligned across secondary and post-secondary levels? Does it prepare students for post-secondary education transition without need for remediation?

How are POS students tracked from secondary to post-secondary education? To what extent are data available?
How were academic and technical standards selected for the POS? How were curricula, instruction, and assessments aligned with these standards? Do you award academic credit for CTE courses?

Does the POS offer opportunities for dual or concurrent enrollment? For what kinds of courses? When and how are the credits awarded? Are the credits restricted to a local community college or transferable to other two-year and four-year institutions?

Does the POS lead to an industry-recognized credential? (Name of credential? Recognized by whom?) Does successful completion of POS lead to employment or further education?
Preliminary Findings*

- College-directed initiative
- Dedicated staff
- Efficient working relationships in smaller communities
- Active advisory committees
- Dual credit logistics
- Challenges of curriculum integration
- Guidance counseling
- State influence
- Disconnect between POS on paper and in practice
- Strong POS do not guarantee student transition

*Based on 8 initial sites visited
Next Steps

- Build preliminary case studies based on:
  - First round of interviews with staff, administrators, and advisors at high schools and colleges
  - High school and college student focus groups

- High school and college student survey and transcript analysis

- Continue data collection to refine case studies and supplement longitudinal student data set

- Backward map findings onto Perkins IV POS components
When will reports be available?

- Interim reports in newsletters, research briefs, journals, and magazines (e.g., January issue of *Techniques*)

- Final report in 2012 will be available at www.nrccte.org
Small Group Discussions

1) Looking at the list of preliminary findings…
   a) In what two areas are your schools/communities doing well? How?
   b) What two areas are the most challenging? Why?

2) What recommendations would you have for the next reauthorization of Perkins (Perkins V) legislation around Programs of Study?

3) What else should we be looking for as researchers that would help the field?
Large Group Discussion

- Small groups report out:
  - Local Successes
  - Local Challenges
  - Recommendations for policy
  - Recommendations for research

- Discuss!
4 components of Perkins IV legislation

6 additional, “supporting” components identified

New framework with 10 components

“Although all components are important, they are neither independent nor of equal priority: POS developers must identify the most pressing components for state or local adoption, taking into consideration their relative need within their educational context.”
Supporting components of POS

- Legislation and Policies
- Partnerships among Education, Business, and Other Key Stakeholders
- Sustainable Leadership
- Rigorous Academic and Technical Standards Aligned with Curriculum and Assessments
- Aligned Secondary and Postsecondary Education Elements
- Credit Transfer Agreements
- Accountability and Evaluation Criteria
- Guidance, Counseling and Advisement
- Professional development
- Innovative Teaching and Learning Strategies
PROGRAM OF STUDY DESIGN FRAMEWORK

“A program of study is a structured sequence of academic and career and technical courses leading to a postsecondary-level credential.”

- Operational definition
Questions, Comments, or Suggestions?

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