Applied Learning as a Best Practice Model

A Strategy for Higher Education Student Success

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What is Applied or Experiential Learning?

- Activities that engage the learner directly in the phenomena being studied and are associated with structured reflection on the connection between the phenomena and theoretical concepts (Kendall, 1990, 181).

- Viewed as pedagogy; practical application of resources; mechanism for citizenship development.
Benefits of this approach

• Increased student exposure, awareness, understanding of traditions and cultures different from their own
• Students as creators of knowledge
• Skill acquisition and development
• Increased interest and excitement about learning
• Supports research and teaching of faculty
Which of the following activities is not traditionally viewed as applied learning?

<table>
<thead>
<tr>
<th>Cooperative Education</th>
<th>Internship</th>
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</thead>
<tbody>
<tr>
<td>Performance</td>
<td>Resident Hall Assistant</td>
</tr>
<tr>
<td>Service-Learning</td>
<td>Study Abroad</td>
</tr>
</tbody>
</table>
Background & Context…

…The Bad: Higher Education Student Persistence: Is There a Problem?

- Approximately 50% of students who enter college to earn a bachelor's degree fail to complete their degree in 6 years.

- First Year Retention:
  - National/Peer: 70%-72%
  - UMBC: 82%

- 6-Year Graduation:
  - National/Peer: 63%-66%
  - UMBC: 55%
Student Success Focuses on Strategies to:

- *Prevent* departure/attrition

- *Promote* overall success developmentally and academically
What is student involvement?

“The amount of physical and psychological energy that the student devotes to the academic experience” (Astin, 1984).
• What is Astin’s Student Involvement Theory?

The greater a student’s involvement, the greater his/her level of personal development and student learning (or higher levels of affective and cognitive development)
Postulates and Assumptions

- Involvement
- Cognitive Outcomes
- Policy & Practices
- Affective Outcomes
Theoretical Model

Applied Learning, Development & Student Success

- Applied Learning
- Affective Development
- Cognitive Development
- Student Success: Persistence
Applied Learning, Involvement & Student Success

Special Programs Exploratory Study: The effect of applied learning on undergraduate retention and graduation rates

2-year Retention Rate

Non-applied Learning: 70.2%
Applied Learning: 88.7%

6-year Graduation Rate

Non-applied Learning: 45.7%
Applied Learning: 83.7%
Research Questions

• What is the impact of different types of applied learning on seniors’ affective & cognitive development?

• How is student development related to degree completion?

• What are the relationships among applied learning, student development, and degree completion?
Methodology

- Data & Sample
  - 2004 *National Survey of Student Engagement (NSSE)*
    - Web-based survey administered by NSSE
    - Response rate (SR) = 36%
  - Senior-level Students
    - 12 - 24 credits of graduating (n = 328)
Methodology

Dependent Variables

- Graduated (yes/no)

- Time to Degree (in years at this institution)
Methodology

Independent Variables

• Applied Learning Experiences (yes/no)
  – Professional practice
  – Community service
  – Research
  – Study abroad program
  – Service-learning

• Multiple applied learning experiences
Methodology

Mediating Variables

• Cognitive Development ($\alpha = .88; 10$ items)

• Affective Development ($\alpha = .84; 6$ items)

• Principal components factor analysis and reliability analysis were conducted for each scale

• Mean scaled scores were created
Control Variables

○ Student Demographics
  – Gender
  – Race
  – Non-traditional college student (> 25 yrs.)
  – First-generation college
  – Enrollment status (FT/PT)
  – Transfer student
  – Major program area (STEM v. non-STEM)
  – Dorm resident
  – In-state residency
  – Cumulative GPA
Bivariate Relationships between Applied Learning, Student Development & Degree Completion

<table>
<thead>
<tr>
<th></th>
<th>Affective Development</th>
<th>Cognitive Development</th>
<th>Graduated</th>
<th>Time to Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional Practice</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Community service</td>
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<td>+</td>
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<tr>
<td>Multiple applied experiences</td>
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<tr>
<td>Affective development</td>
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• Bivariate relationships between applied learning and reports of cognitive & affective development remained significant when controlling for student characteristics.
Senior-level students who had completed a professional practice experience were significantly more likely to graduate in less time than seniors who reported not having completed such an experience.

Senior-level students who engaged in more applied learning experiences were significantly more likely to graduate in a shorter period of time than those who did not.
Implications

Implementation & Next Steps

• Promote the institutionalization of applied learning as part of undergraduate education enhancement
  – Creating an “honors university experience” for every student
  – Applied learning as graduation requirement
  – Effectiveness & Efficiency Initiative

• Dissemination as a best practice for adaptation/implementation of applied learning as an active learning curriculum component
Limitations of Current Research

• Used a sample of senior-level students
• Focused on multi-item indicators of cognitive and affective development instead of individual components
Directions for Future Research

- Incorporate Alumni Survey to enhance current research
- Longitudinal retention and graduation analysis
Directions for Future Research

- Tinto’s interactionist theory of student departure

- Pilot study of impact of applied learning on affiliated versus non-affiliated student success
QUESTIONS?