Creative Coursework Exposure: Enhancing College Student Engagement Across Disciplines

Angie L. Miller, Ph.D.
Center for Postsecondary Research
Indiana University Bloomington
Creativity training can be effective in academic settings and teachers, in particular, can have an impact on creativity (Scott et al., 2004).

Incorporating creativity into classroom activities/assignments can encourage student engagement (Halpern, 2010).

Purpose of current study: explore how exposure to creative coursework can predict student engagement in a variety of areas.
National Survey of Student Engagement (NSSE)

- NSSE gives a snapshot of college student experiences in and outside of the classroom by surveying first-year and senior students
- NSSE items represent good practices related to desirable college outcomes
- Indirect, process measures of student learning and development
- Annual survey, spring administration
• Higher-Order Learning
• Reflective & Integrative Learning
• Learning Strategies
• Quantitative Reasoning
• Collaborative Learning
• Discussions with Diverse Others
• Student-Faculty Interaction
• Effective Teaching Practices
• Quality of Interactions
• Supportive Environment
In 2016 and 2017, 266 institutions selected “Senior Transitions” Topical Module: Responses from over 61,000 seniors.

- **Creative Coursework Scale** - Extent major coursework has emphasized:
  - Generating new ideas or brainstorming
  - Taking risks in your coursework without fear of penalty
  - Evaluating multiple approaches to a problem
  - Inventing new methods to arrive at unconventional solutions

- **Engagement Indicators** and other demographic and institutional characteristics from core survey.
OLS INDEPENDENT VARIABLES

**Student demographics**
- First-generation
- Age
- Gender
- Race/Ethnicity
- ACT/SAT score

**College experiences**
- Enrollment status
- Percentage of online courses
- Major field
- College grades
- Transfer student

**Institutional context**
- Control
- Institution size

*Exposure to Creative Coursework (Step 2)*

*DV* 10 Engagement Indicators
### RESULTS: SENIOR MODELS

<table>
<thead>
<tr>
<th>DV Engagement Indicator</th>
<th>Adj. $R^2$</th>
<th>$\Delta R^2$</th>
<th>Std. $\beta$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher-Order Learning</td>
<td>.226</td>
<td>.193</td>
<td>.452</td>
</tr>
<tr>
<td>Reflective &amp; Integrative Learning</td>
<td>.225</td>
<td>.147</td>
<td>.394</td>
</tr>
<tr>
<td>Quantitative Reasoning</td>
<td>.195</td>
<td>.097</td>
<td>.321</td>
</tr>
<tr>
<td>Learning Strategies</td>
<td>.146</td>
<td>.104</td>
<td>.332</td>
</tr>
<tr>
<td>Collaborative Learning</td>
<td>.142</td>
<td>.056</td>
<td>.243</td>
</tr>
<tr>
<td>Discussions with Diverse Others</td>
<td>.055</td>
<td>.044</td>
<td>.217</td>
</tr>
<tr>
<td>Student-Faculty Interaction</td>
<td>.189</td>
<td>.119</td>
<td>.355</td>
</tr>
<tr>
<td>Effective Teaching Practices</td>
<td>.184</td>
<td>.161</td>
<td>.413</td>
</tr>
<tr>
<td>Quality of Interactions</td>
<td>.127</td>
<td>.100</td>
<td>.326</td>
</tr>
<tr>
<td>Supportive Environment</td>
<td>.206</td>
<td>.179</td>
<td>.435</td>
</tr>
</tbody>
</table>

All significant at $p < .001$
DISCUSSION

• Significant predictor for every single engagement indicator, even after controlling for other variables

• Some expected (i.e. higher-order, reflective & integrative) but others more surprising (i.e. quantitative reasoning)

• Strong explanatory power in most models
  – And coefficients relatively strong in magnitude

• Creative coursework overall part of good teaching/positive educational experiences
LIMITATIONS

• Self-reported data

• Self-selection: for institutions and students

• Correlational, not causal design
FUTURE RESEARCH

• Institution-level variance?
  – Case studies with high-performing schools
• Other constructs of potential influence (i.e. personality traits)
• Previous experiences with creative activities
• Link to outcomes: job attainment and career plans
• Other suggestions?
Questions & Comments?

Angie L. Miller
anglmill@indiana.edu