Community-Engaged Learning and STEM: How Initial Perceptions Vary Based on Course

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Community-Engaged Learning

• Community-Engaged Learning (CEL) is a combination of academic work and collaborating with the community¹
• Involves students, community partners, and campus partners
• Students reflect on their experiences
• Benefits: “real world” application, increases engagement, improves skills²
• Expose students to career options and give them experience needed for careers

Research Questions

Does course type (major) differentially affect student perceptions of CEL?

How do student perceptions of CEL affect buy-in?

Survey Approach

Survey
• Exploratory survey given to undergraduate microbiology and psychology courses
• Psyc 111 (Introduction to Psychology): general education, elective, 158 students
• Micro 352 (Introduction to Microbiology II): upper level, major course, 27 students
• Close and open-ended questions

Coding
• Coding scheme based on student responses
• IRR above 90% for open-ended questions

Analysis
• Compared responses from each course for relevant survey questions

Students are Positive, but Nervous Feeling

• Majority positive feelings, but nervous
• Differences between courses:

<table>
<thead>
<tr>
<th></th>
<th>Micro</th>
<th>Psyc</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excited</td>
<td>67%</td>
<td>45%</td>
</tr>
<tr>
<td>Nervous</td>
<td>48%</td>
<td>24%</td>
</tr>
</tbody>
</table>

Value

• Differences between courses:

<table>
<thead>
<tr>
<th></th>
<th>Micro</th>
<th>Psyc</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real World Application</td>
<td>63%</td>
<td>13%</td>
</tr>
<tr>
<td>Improve Learning</td>
<td>4%</td>
<td>20%</td>
</tr>
</tbody>
</table>

Drawbacks

• Similar between courses
• Largest concerns were logistical and time commitment

Buy-In to Implement CEL

• Buy-in for a CEL course is needed to ease nervousness in both major and non-major courses
• The results suggest highlighting the values of CEL would be beneficial
  • Especially real world application for a non-major course
• It would also be advantageous for instructors to address major drawbacks that students see with CEL
• Future directions:
  • Data support implementation of CEL in a major course
  • Working to link CEL to career

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References