Is undergraduate research the CURE for student engagement?

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What is a CURE?

Course-based undergraduate research experience

<table>
<thead>
<tr>
<th></th>
<th>CUREs</th>
<th>Research internships</th>
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</thead>
<tbody>
<tr>
<td><strong>Scale</strong></td>
<td>A whole class</td>
<td>A few students</td>
</tr>
<tr>
<td><strong>Mentor-to-mentee ratio</strong></td>
<td>1:many</td>
<td>1:1</td>
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<tr>
<td><strong>Enrollment</strong></td>
<td>Open to all students in a course</td>
<td>Open to a selected few</td>
</tr>
<tr>
<td><strong>Time commitment</strong></td>
<td>Time investment is during class.</td>
<td>Time investment is outside of class.</td>
</tr>
<tr>
<td><strong>Setting</strong></td>
<td>Teaching lab</td>
<td>Faculty research lab</td>
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</tbody>
</table>

Modified from Auchincloss et al. (2014)
What activities do students engage in during a CURE? (Auchincloss et al., 2014)

Engage in scientific practices
- asking authentic questions, designing studies, selecting methods, using tools, navigating real data

Discovery
- Outcomes of investigations are unknown to both instructor and students

Relevant to the discipline
- Potential for impact/publication

Collaboration
- Teams of scientists working together

Iteration
- “Students ... repeat or revise aspects of their work to address problems or inconsistencies, rule out alternative explanations, or gather additional data to support assertions” (p. 31)
Benefits of CUREs
(Auchincloss et al., 2014)

• Depends on how many CUREs a student has opportunity to participate in
Please describe your course, generally, such as who takes it, what the topic is, and how you have integrated undergraduate research into the course?
What was your reason for choosing to do course-based research for this course? Why was this important to you?
What student outcomes have you measured, or what benefits have you observed as a result of integrating research into this course?
What advice would you give to someone who is considering integrating research or some other form of scholarly inquiry into one of their undergraduate courses?
Thank you!