Integrating Entrepreneurship into Capstone Design: An Exploration of Faculty Perceptions and Practices

Purpose
This study examined entrepreneurially focused curricular practices among engineering Capstone design faculty. The two primary research questions for this study are:

Research Question 1
How and to what extent do faculty incorporate different entrepreneurial practices in their Capstone design courses?

Research Question 2
How important is it to increase different entrepreneurial practices in the Capstone design class?

Qualitative Results
Content analysis of open-ended survey responses shed light on challenges and strategies faced by Capstone design faculty when attempting to incorporate different entrepreneurial practices. Integrating entrepreneurship into Capstone design was challenging due to either:

1. A lack of financial and/or faculty support
2. Inappropriate timing (students should be exposed sooner)
3. Limited relevance in certain disciplines (e.g., civil engineering)
4. Low student demand (engineering students want to be challenged)
5. A difference in focus (Capstone courses should foster partnerships with industry)
6. Competing tradeoffs (teaching entrepreneurship might compromise the core curriculum)

Research Question 1

Cronbach’s alpha for Questions

<table>
<thead>
<tr>
<th>Question</th>
<th>How important is it to increase the degree to which the following are supported in your capstone design course?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Understanding of intellectual property</td>
<td><em>Very Important</em></td>
</tr>
<tr>
<td>2. Customer validation</td>
<td><em>Very Important</em></td>
</tr>
<tr>
<td>3. Infrastructure to help students continue to develop their projects after the course ends</td>
<td><em>Very Important</em></td>
</tr>
<tr>
<td>4. Student-sponsored projects</td>
<td><em>Very Important</em></td>
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<tr>
<td>5. Student-designed projects</td>
<td><em>Very Important</em></td>
</tr>
<tr>
<td>6. Business model or commercialization plans</td>
<td><em>Very Important</em></td>
</tr>
</tbody>
</table>

In your opinion, important is it to increase the degree to which the following are supported in your capstone design course?

On a 5-point scale (1=Never, 5=Always), respondents were asked to rate each criteria on a 5-point Likert scale.

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Research Question 2

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References