The Role of the Instructor in the Success of Undergraduate Real-Life it Capstone Team Projects

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The Role of the Instructor in the Success of Undergraduate Real-life IT Capstone Team Projects
Karen Patten, Ph.D., & Lynn Keane, Ph.D.
Integrated Information Technology

Abstract
Undergraduate students on real-life IT capstone projects integrate major concepts learned in their IT program while gaining valuable experience successfully planning and completing real projects.

Instructor Roles and Responsibilities

<table>
<thead>
<tr>
<th>Roles</th>
<th>Responsibilities</th>
<th>Challenges (Instructor / Student Perceptions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-course</td>
<td>- Structure course objectives</td>
<td>- Students learn from mistakes, but mistakes can create a project.</td>
</tr>
<tr>
<td>During Course</td>
<td>- Assign course deliverables &amp; project schedule</td>
<td>- Achieving student learning outcomes is very different than assuring the successful initiation, planning, execution of the project and delivering the project products / services.</td>
</tr>
<tr>
<td>Post Course</td>
<td>- Provide final grades individually and team</td>
<td>- Reinforce differences between project management processes and product / service deliverables.</td>
</tr>
</tbody>
</table>

Portfolio Manager (the Boss)

| Pre-course | - Final projects | - The number of projects vary by number of students (four to eight in different semesters). |
| During Course | - Web project ideas | - The projects may be similar, e.g., new Website projects, but all are individual projects with their own aims. |
| Post Course | - Obtain client feedback & reflections | - Lead by example - manage issues, deal with communication problems, etc. |

Mentor

| Pre-course | - Be encouraging and motivating | - Give examples of potential issues from previous projects / semesters. |
| During Course | - Provide regular feedback | - Meet with students as needed. |

Capstone Project Success Factors

- Client satisfaction with IT project deliverables
- Real-life clients involvement is based on real business / organization needs
- Achievement of the student learning outcomes
- Students should be challenged to exercise higher levels of proficiency while integrating technical and soft skills in project management
- Student perceptions of these frustrations and accomplishments
- Important to provide feedback to build on student experiences.
- Instructor’s assessment of the student performance
- Instructor provides grades versus team grades
- Project methods, processes versus project products, services

IT Capstone Projects over 5 Years

<table>
<thead>
<tr>
<th>Semester</th>
<th>Fall</th>
<th>Spring</th>
<th>Fall</th>
<th>Spring</th>
<th>Fall</th>
<th>Spring</th>
<th>Fall</th>
<th>Spring</th>
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</tbody>
</table>

Instructor Perceptions

- Students learn from mistakes, but mistakes can create a project.
- Achieving student learning outcomes is very different than assuring the successful initiation, planning, execution of the project and delivering the project products / services.
- Reinforce differences between project management processes and product / service deliverables.

References

Future Study Approach
- Should the capstone instructor be more or less active during the project processes?
- From a scholarly perspective, how should these issues be studied in order to contribute to:
  - Information technology theory and literature?
  - Capstone course instructor best practices?