Does Structure Alter Students’ Perceptions of Group Projects?

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Background and motivation

“What I learned from this group project is that I don’t like to work in groups. I do better work by myself.”

Background and motivation

• AGR 215: Farm Supply & Food Industry Management
  – Senior-level agribusiness course
  – Implemented a semester-long group project
  – Key components include:
    • DISC
    • Scaffolding
    • Group norms
    • Individual reflection
Background and motivation

• “Our group has worked very well together and I’ve been pleasantly surprised.”

• “If I’m being honest, this is probably the smoothest group project I’ve ever participated in.”

• “I find this to be the best group project I’ve ever worked on.”

• “Group projects suck but this one has actually gone very well.”

AGR 215 individual student reflections, Spring 2016
Rationale

Through group work, “(1) students learn teamwork skills, (2) students improve their critical thinking skills, and (3) students gain more insight about a particular topic.”

➢ Can the benefits outweigh the inherent challenges?

Rationale

• Seeks answers to key questions:
  
  – What elements of group work improve students’ learning experiences?
  
  – Does structure affect perception?
Methods

• Series of 3 questionnaires
  – Administered in AGR 215 – Farm Supply & Food Industry Management
    • ISU Institutional Review Board Protocol #910555-2
    • Before, halfway through, and upon completion of the project
    • Topics included:
      – Prior group project experiences
      – Structural elements of AGR 215 project
      – Attitude toward group projects
Methods

• Summary statistics
• Paired sample t-test
• SPSS Version 22
### Results: Prior to beginning the AGR 215 project

<table>
<thead>
<tr>
<th>Element of group projects</th>
<th>% with prior experience</th>
<th>% who would choose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receive grades/feedback on project throughout semester</td>
<td>61.1%</td>
<td>66.7%</td>
</tr>
<tr>
<td>Professor assigns students to work groups</td>
<td>83.3%</td>
<td>25%</td>
</tr>
<tr>
<td>Groups establish their own group norms</td>
<td>83.3%</td>
<td>38.9%</td>
</tr>
</tbody>
</table>

66.6% had completed 3+ prior group projects in college
Results: Upon completion of the AGR 215 project

<table>
<thead>
<tr>
<th>% who agree or strongly agree with the following:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Establishing group norms increased cooperation</td>
<td>91.9%</td>
</tr>
<tr>
<td>Professor expectations clearly understood</td>
<td>97%</td>
</tr>
<tr>
<td>Opportunity to resubmit sections contributed to group’s success</td>
<td>100%</td>
</tr>
<tr>
<td>Scaffolding contributed to group’s success</td>
<td>100%</td>
</tr>
</tbody>
</table>
Results: Upon completion of the AGR 215 project

<table>
<thead>
<tr>
<th>Compared to their past group project experiences:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>This project provided more structure</td>
<td>87.9%</td>
</tr>
<tr>
<td>This group worked better together</td>
<td>51.5%</td>
</tr>
<tr>
<td>Their self confidence increased</td>
<td>57.6%</td>
</tr>
</tbody>
</table>
Results: Upon completion of the AGR 215 project

• Students report a significantly positive increase in their overall opinion of group projects (p<0.001)
Implications

• Results suggest that the way a group project is structured can improve the student learning experience

• Can be applied to any discipline
Questions?