

Cooperative Discussion Groups as an Engagement Tool for Undergraduate Courses

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### **Introduction and Need for Strategy**

After a complete restructuring of the Agricultural Education curriculum at a large Midwestern university, there was a noted shift in the content of courses to purposely intertwine pedagogy, content, and teaching philosophies across all courses as opposed to the previous strategy of dividing these topics into individual courses. Because these elements exist now in all of our courses, instructors must consider barriers for students as they develop, implement, and evaluate classroom discussion to deepen students' understanding in such philosophical topics. As a way to accomplish this, the purpose of this LCT strategy was to use elements of cooperative learning groups to emphasize and facilitate discussions via Cooperative Discussion Groups (CDGs), rather than Whole Class Discussion (WCD).

### **Connection to Literature**

WCD is a teaching method which can encourage students to think critically, reflect on their beliefs and practices (Wade, 1994) and actively engage in course content (Dancer & Kamvounias, 2005). Further, students feel they learned more and enjoy sharing their ideas when they participate in WCD (Wade, 1994). Some barriers exist to successfully implementing WCD though. Barriers include students fearing their ideas were unworthy, facing criticism, or not being provided ample time to gather their thoughts (Wade, 1994). Additionally, students may or may not participate in WCD due to course logistics, student efficacy, student personality and preference, course climate, and the course instructor (Rocca, 2010).

Almost the opposite of WCD, cooperative learning is the utilization of small groups to meet a common learning goal, and through this, research indicates an increase in efforts to achieve, positive relationships among students, and students' psychological health (Johnson et al., 1998). To succeed, cooperative learning needs to support positive interdependence, individual and group accountability, promotive interaction, interpersonal and small group skills, and group processing (Johnson et al., 1988). Other research has shown cooperative learning to positively impact student motivation (Fernandez-Rio et al. 2017), produce more equal participation (Lange et al., 2016), and increase intrinsic motivation (Tombak & Altun, 2016).

### **Implementation of LCT Strategy**

A case study was conducted within a required Agriscience Education course for third-rank students at a large Midwestern university. This course had a focus on experiential learning and began with an enrollment of 28 students. Students were randomly assigned to seven groups of four on the first day, keeping in line with recommendations from Johnson et al. (1998). These groups were then structured with four group roles (moderator, recorder, reporter, and discussion delegate) that were rotated between members every three weeks. Regardless of their role, it was a clear expectation that all group members were to participate in all group discussions.

These CDGs were graded via group submissions, assignments, and peer and self-reviews. At the conclusion of the course, students were provided three journal reflection prompts and were asked to reflect on their experiences within the CDGs. These submissions were line by line coded by the researchers who came together to compare codes for inter-rater reliability and to conduct an analysis that resulted in the five themes that arose from the data.

### **Results to Date**

The first theme was the overall success of the discussion groups. Students relayed how at the beginning of the semester they did not feel comfortable with the groups – feeling like they would just be “another group project.” However, across all responses, student comfort and confidence grew over the semester. A majority of students felt it helped their learning and that they enjoyed the experience. Although some conflicting codes did arise with student concerns of having enough time to complete the activities. Along similar lines, the second theme, collaboration through designated roles, illustrated the students’ success with their group members within the four defined roles. Within this was a subtheme of collaboration; students felt they were able to argue and debate in a safe place with a decreased sense of judgement. The second subtheme was that of group roles. Students felt the roles guided expectations, distributed work evenly, and most appreciated that they were able to “switch up” their role through the semester.

The third theme was the understanding of course material. Students felt that the CDGs allowed them to dive deeper into content, bounce ideas off of one another, and build on those ideas as a collaborative group. Within this theme we found two subthemes. The first, of belief development, was illustrated by students feeling empowered to develop their own ideas on course content implementation as opposed to “just being told how to do it.” The second subtheme rose around major course assignments as students felt that the group prompts and activities helped with the individual assignments. There were some contradictory codes for this subtheme including that sometimes students felt as if they were not learning because they were focused on what to say next, juggling the social factors that come with group discussion.

The fourth theme consisted of students comparing CDGs and WCD. Students felt that the CDGs worked better and were less intimidating than WCD, which lead to comfort in voicing their thoughts, receiving feedback, and asking questions. Students found that discussion was much more efficient within CDGs, especially when they started class sessions sitting together. They also felt they had more of a voice compared to WCD. On par with thinking of these teaching methods, the fifth theme was using CDGs within the context of Ag Ed and Pre-service teachers. Students felt that the CDGs helped them see the different experiences of their peers from their high school agricultural education programs, helped build connections for future networking, and prompting them to think how they could use CDGs in their future classrooms.

### **Future Plans / Advice to Others**

Addressing the concern of time from the first theme, it should be thoroughly considered how and when you use CDGs. When implementing these groups, especially in shorter class periods, practices like instructing groups to sit together at the beginning of class, providing specific time lengths for activities, and reminders of time remaining for these activities will benefit students as they work. Another strategy to keep in mind for planning CDG learning activities is that case studies in the course had a much better reception by students when completed in CDGs as opposed to WCD. This shows that some learning activities already used in the classroom have potential to work better within CDGs. In implementing this LCT strategy, future approaches should seek to address how CDGs can impact courses without philosophical elements and courses with large enrollment numbers of students as this case study was centered around a course with relatively small enrollment and major philosophical themes.

## References

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