Short-form email: Collaborative Testing

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Collaborative Testing

At our third High Noon Luncheon of the spring, Professor of Anthropology Jennifer Mathews, supported by the CLT’s Wendy Apfel, shared how exciting it was to "reboot" her Introduction to Prehistoric Archaeology course—a course she has taught about 40 times. With the support of a Collaborative Course Redesign Grant and a Faculty Travel Award, Jen incorporated 10 case studies into the course, which students were responsible for learning on their own outside of class time. Then, in class, students took quizzes on the cases via TLEARN, first individually and then, after group discussion, collaboratively.

In “Testing Together: When Do Students Learn More through Collaborative Tests” (2015), LoGuidice, Pachai, and Kim offer a review of the research on collaborative testing. In lab settings, specifically, they found that there were several reasons why collaborative testing might facilitate student learning, as Jen’s class experienced, and several reasons why it can sometimes seem to hinder learning:

Facilitate:
- **Reexposure**: When group members recall information during discussion, it can serve as a reminder for those who have forgotten it.
- **Retrieval and cross-cueing**: When group members express only partial or incomplete information during discussion, it can serve as a cue to trigger others to recall the rest.
- **Error pruning**: The group can reject what they collectively determine is incorrect information.

Hinder:
- **Retrieval disruption**: Individuals organize and store knowledge differently. During discussion, when group members share information according to their own schemas, it can conflict with how others organized that same information and prevent them from being able to recall it.
- **Production blocking**: When group members must wait their turn to speak, group productivity can suffer.
- **Socially shared forgetting**: If the group collectively remembers certain information, but it is not complete, they may actively forget the rest of the information that was not discussed.

In the classroom, however, research has consistently shown that collaborative testing decreases test anxiety for students and that they perceive they have learned more. Moreover, LoGuidice, Pachai, and Kim indicate that groups regularly score higher on exams than individuals (though this does not always mean that each student in the group necessarily learns more). This conclusion is supported by much of the data Jen and Wendy shared during their High Noon Luncheon.

In order to reap the benefits of collaborative testing, as Jen did, the researchers recommended that instructors:
- Prime students by having them answer questions on their own before taking the collaborative test.
- Ensure there is sufficient time allotted for students to participate in the group discussion. (To determine what is “sufficient,” they suggest collecting feedback directly from students.)

-Emily

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