

In-Class Collaborative Writing Assignments

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I started using collaborative Assignments as part of an 'Interteaching' Experiment

Hineline defines interteaching as "a mutually probing, mutually informing conversation between two people. It lasts about 30 minutes, and deals with the main points in a specified reading assignment" (Hineline, 2003, p. 1).

The method includes:

- 1) preparation guides which outline the required reading assignments;
- 2) in-class inter-teaching discussion sessions between student dyads in which possible answers to specific questions are discussed;
- 3) daily logs that include the names of the students in each dyad, topics with which the students had difficulty, and topics the students would like reviewed in lecture;
- 4) class lectures on the topics contained in the student logs; and
- 5) probes or quizzes on the 'intertaught' material, and course exams.

Pros and Cons of Peer Teaching

- Engagement with the material increases.
- Mastery of content improves.
- Some critics report that peer teaching takes up valuable class time.
- Students often spend more time discussing their weekend plans than the course content.
- Adding contingencies (e.g. grading the output) has been reported to be beneficial at keeping students on task (Saddler & Graham, 2005).

My Procedure for Implementing In-Class Collaborative Assignments

- Each week, students spent 15 to 20 minutes of class time engaged in problem-based collaborative writing assignments.
- The assignments were delivered, completed, and feedback was provided via Pearson's MyCompLab software.
- At the beginning of class, students were given their peer-assignments. Dyad members were switched each week.
- The assignments were graded on a check-mark 10-point system.
- Substantive comments were provided via MyCompLab prior to the next class period.
- The quality of the student essays was used as a guide for the next class lecture.

Sample Prompt Directions:

The question involves evaluative writing. The writer should include both pros and cons; discuss the pro-side first, then the con-side. Discuss the neutral side last, if applicable.

This question includes elements of categorical, comparative and sequential writing. Start with a summary statement about the overall controversy. Be sure to describe the 'nature' point of view with supporting evidence and the 'nurture' point of view with supporting evidence. Last in the sequence should be an explanation of how elements of 'nature' and 'nurture' explanations are combined into an interactionist point of view. Include specific examples of how the interactionist viewpoint is unique and is more than simply the sum of nature + nurture approaches. Keep like things together in your discussion.

The question involves comparative writing. Discuss the most relevant contrasting features first. Explain the specific subtopics on which you are comparing the two types of treatment. E.G. "This essay will compare animal rights to ethical treatment of animals in applied medical/behavioral research, non-medical consumer product research, and as food sources."

Sample collaborative assignment questions for Brain and Behavior (PSY 383):

- Describe the Nature/Nurture Controversy in your own words. What is an interactionist approach?
- Compare and contrast animal rights with ethical treatment of animals?
- What are the basic components of a neuron?
- What are the major ions that play a role in neural communication?
- Which ions move where during an action potential?
- How is the activity of a neurotransmitter terminated?
- How do drugs affect synaptic communication?
- What is an agonist? An antagonist?

Sample collaborative Writing Questions for Psychopharmacology (PSY 487):

- Discuss the blood-brain barrier as a limitation to drug transport into the central nervous system.
- Briefly describe the following barriers that may affect drug distribution: plasma protein binding; liver cytochrome P450 enzymes; G.I. contents.
- The drug "Learnease" has a half-life of 4 hours. If a student takes a 100 mg. dose, how much drug is left in the body at the end of 6 hours?
- What are the various routes through the body whereby drugs can be eliminated?
- "Prolonged Cocaine use has been reported to be associated with behavioral tolerance, but not pharmacokinetic tolerance." Explain the previous statement in your own words. Be sure to include some specific effects associated with each type of tolerance in your answer.
- Check out the external links on our CourseCompass page: In your opinion, what are the pros and cons of living in a country with a Federal Food and Drug Administration?

Classmate Collaborative Assignments Grading Rubric. Fill out the classmate rubric for your assigned writing partner with each class assignment. Submit these to Dr. Carroll immediately after the class period. The purpose of this evaluation is to help individuals understand how their work is perceived by others. Evaluative comments will be summarized anonymously and will help the instructor assign points for class participation.

Name of student being evaluated: _____

Date of Evaluation: _____

Evaluator: _____

	Not prepared	Hindered effort	Made no contribution	Contributed Adequately	Made Major Contributions	
Objective	-2	-1	0	1	2	Comments
Student has completed assigned readings and is prepared to answer questions.						
Quality of Student's work.						
Student's ability to work with others.						
Student's ability to accept constructive criticism, compromise, and negotiate.						

Reflections on the Usefulness of Collaborative Writing

- Students had a great deal of difficulty with the first collaborative writing assignment. I reviewed the assignment in class, and we spent the next writing period on 'rewrites' of this first assignment.
- By the second week, the students had figured out the MyCompLab software and the instructor's expectations, and appeared to be very engaged in the collaborative assignments.
- Class attendance was very high, and the students stayed 'on task' during the collaboration time.
- The assignments helped students to get to know their peers. Class discussions were much richer and there was a significant amount of student input over previous semesters.
- Anecdotally students lingered in the classroom, even after the class time had ended.
- The students were very deliberate and conscientious in rating their partner's contributions via the dyad rubrics.
- Grading the collaborative assignments was very useful to me, the instructor. Every week I had a very strong sense of what the students did and did not understand about the course content.
- The constant feedback resulted in my covering less material than in previous semesters. In previous semesters I had just assumed the students were 'getting it'. Now, I knew how much they were able to actually comprehend on a weekly basis. More importantly, I knew which information the students could apply to practical problems, as opposed to just regurgitate.

Results of Data Analyses:

- Scores on the in-class writing assignments were significantly positively correlated with the overall-course grade.
- The results indicate that both the in-class collaborative writing assignments ($r(35) = .658, p < .01$) and the on-line quizzing ($r(35) = .651, p < .01$) were positively related to mastery of course content. **However, performance on collaborative writing assignments and on-line quiz scores were not significantly related to each other. This finding indicates that both pedagogical methods contributed uniquely to mastery of course content, critical thinking, and problem solving skills.**
- The mean per cent attendance was 91.92 per cent ($SD = 10.43$). As a measure of engagement, attendance was therefore quite high. It is important to note that attendance was not part of the grading criteria.

Student Engagement?

Data for both courses from the previous year, with the same instructor, course content, webpage information, quizzes and exams, using a standard lecture format with power-point presentations, were compared to course data using the inter-teaching approach.

- There was no significant difference in overall course grades between the two teaching approaches. This was not necessarily surprising given that both types of courses (Standard and Inter-teaching) were small, writing-intensive courses.
- Although there were no overall differences in mastery of content, cursory review of the end of semester course evaluations indicated some differences in what might be labeled 'student engagement factors'.
- Four items from the end of semester course evaluations were chosen for comparison:
 - Item 1: Time spent in class worthwhile
 - Item 2: Class Meetings intellectually stimulating
 - Item 3: Instruction helped with understanding
 - Item 4: Class makes me want to learn more about subject

Measures of Engagement from Course Evaluation Surveys

Course Evaluation Item	Method	Mean	Std. Error
Time in Class Worthwhile	Standard	57.000	.700
	Inter-teaching	79.550	1.750
Class Intellectually Stimulating	Standard	56.900	.600
	Inter-teaching	73.600	1.400
Instructional Method Helpful	Standard	66.075	3.575
	Inter-teaching	74.000	7.300
Want to Learn More	Standard	61.900	.600
	Inter-teaching	73.300	4.500

Since the end of semester evaluations are completed anonymously, only group comparisons were possible. The percentage of students responding 'strongly agree' were compared. See Table above for the means and standard errors. Separate single sample t-tests were performed for each item. There were significantly more 'strongly agrees' in the interteaching sections for both 'time spent in class was worthwhile', $t(1) = 32.21, p < .05$ and 'this class makes me want to learn more', $t(1) = 19, p < .05$. There was a trend toward a significant difference for the 'class time was intellectually stimulating' item, $t(1) = 11.93, p < .10$.

The most valuable take-away message for me from this experience is that collaborative learning was a much more enjoyable and engaging experience for both me, and my students. Early in the semester, the students all knew each other's names, they regularly chatted on our course webpage about the course content, and engaged in many in-depth, thought-provoking discussions during class. This was most definitely an improvement over students' participation in my standard power-point lecture courses.