

Proceedings of the 2017 Atlantic Universities' Teaching Showcase

Volume 21 | Pages 1–6 | <https://ojs.library.dal.ca/auts/index>

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*Association of Atlantic Universities/
Association des universités de l'atlantique
Editor-in-Chief: Donovan Plumb
www.atlanticuniversities.ca*

*Volume 21 | Pages 1–6
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READING QUIZZES FOR UPPER YEAR SEMINARS

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Abstract

Class discussions always go better when people are prepared. To encourage students to prioritize readings for an upper year seminar, I instituted short answer reading quizzes at the beginning of every class modeled from Clinton and Kohlmeyer (2005). This seminar entailed weekly readings (approximately 30 to 50 pages) and such readings were typically empirical papers. Quizzes were structured to comprise two to three open ended questions and were first completed individually and handed to the instructor. Once completed, groups of 3–4 students received a clean copy of the quiz to complete together. Both individual and group quizzes were graded. An average score based on the individual results of the group was calculated and if the score on the group quiz was higher than the average, the difference was added to each individual score. In addition to enhancing engagement and learning (e.g., Hodges et al., 2015; Tropman, 2014; Wambuguh & Yonn-Brown, 2013), the use of both individual and group quizzes was intended to limit students' anxieties related to quizzes and, at the same time, students who had not completed the readings would benefit less than those who had completed the work. Observations across three iterations of the seminar highlight the added benefit of group quizzes for fostering enthusiastic and rewarding discussions. Moreover, feedback from students on end of semester anonymous surveys support the use of individual and group quizzes for active learning.

Keywords

group quizzes, reading quizzes, upper year seminars

Like many, I regularly teach a fourth year undergraduate seminar. Such a seminar is intended to have students explore a topic in more depth and, in this psychology seminar, this often entails reading original empirical and theoretical papers related to the topic. Additionally, in a seminar the class size is typically smaller than lower level courses, providing more opportunities for extensive discussions. Indeed, discussion is a primary focus of this seminar. Although there is some debate about the optimal group size for fostering discussions, some instructors, like me, may have seminars with up to 20 students. The class is designed so that we meet once a week for three hours. There are no examinations for this course; rather assessment is based on presentations, participation in discussion, a series of papers, and performance on quizzes.

With this course format, I typically grapple with two issues as I prepare for my seminar. The first issue concerns whether all students have completed the readings. Although it appears that the majority of students have, some may not. Moreover, it is not always clear that students who have completed the readings have always extracted the most important information. The second issue concerns the discussion itself. While there is variation within the class regarding frequency and quality of participation in discussion, it is my goal to ensure contributions from all members, and a significant portion of grading rests on the discussion component. What follows is a description of how I adopted quizzes that were initially intended to deal with my first issue, and then discovered how they also contributed to addressing some concerns related to my second issue.

Why reading quizzes?

Reading quizzes have three benefits: 1) students are more likely to complete the readings (e.g., Tropman, 2014); 2) students are more likely to attend classes (e.g., Shapiro, 2009); and 3) students are more likely to learn the material (e.g., Roediger & Karpicke, 2006). Initially, I implemented individual quizzes but found that students reported increased anxiety associated with the quizzes and performance on the quizzes was lower than I had expected. Following exploration into quiz formats, I adopted a combination of individual and group quizzes as described in the following section.

My adoption of the following format was based on the work by Clinton and Kohlmeyer (2005). There are various descriptions of individual and group quizzes readily available that describe similar formats including: cooperative quizzes by Leal (<https://teach.its.uiowa.edu/using-cooperative-quizzes>) and group quizzes by Weimer (<https://www.facultyfocus.com/tag/group-quizzes/>).

Quiz Format

At the beginning of each class session, students are required to individually complete a short quiz comprised of two to three questions (format of the questions varies). Students take approximately 5 to 10 minutes to complete the quiz.

All quizzes are handed to me (the instructor) and groups of 3–4 students are given a clean copy of the same quiz. Groups are encouraged to discuss their responses and choose responses that reflect consensus. This typically takes longer than the individual quizzes, in part, because of the discussion that occurs. Completed group quizzes are then handed to me.

It is at this point that, as a class, we take up the quiz. By taking up the quiz immediately after its implementation, students receive corrective feedback and clarification. It is also at this point that the discussion escalates. Student responses to the questions have already been validated by groups with resultant increased confidence and, importantly, students appear to be more likely to raise questions. For example, one concept that we often encounter within the readings concerns moderation whereby a relationship between two constructs is moderated by a third. Students appear to struggle with this concept when presented with it in a research study's context. Thus, I will often include a question on the quiz that asks students to draw a graph of the result (e.g., "Draw a graph of the impact of positive self-statements on self-esteem for people who have high and low self-esteem, taken from Wood, Perunovic, and Lee, 2009"). When addressing this question, I will draw the graph on the board with students' direction, and follow up with additional questions such as "Describe this in words" and/or "What might we expect to happen for people with 'average or middle scores' on self-esteem?" Students appear to be engaged as indicated by their questions and participation.

Interestingly, the discussion that follows the quiz often goes beyond the content of the quiz questions. Sometimes, this leads into a discussion of whether the findings from the research could be implemented and how that might unfold. Using the example above, I might take a poll from students regarding whether they would recommend using positive self-statements, with follow up questions of "when" and "why." Often the discussion turns to the quality of the reading and even the nature of the quiz questions themselves. If this does arise, I will then ask students to generate questions based on the readings that best capture the main points. In small groups, they will work together on such questions then share them with the rest of the class. Overall, the quiz and the ensuing discussion provide a transition to a more in-depth discussion of the readings and topic.

Individual quizzes are graded and marks are recorded, as are group quizzes. An average of the individual quiz marks is calculated for each group and if the grade for the group quiz is higher than the average, each student receives the difference. For example, students A (grade 2/5), B (grade

4/5), C (grade 3/5) have an average of their individual quizzes of 3/5 and their group quiz grade was 4.5. The difference of 1.5 is added to each student's individual grade yielding grades of 3.5, 5.5 and 4.5 for students A, B, C, respectively. Final grades are consistently high yet variability is maintained.

Typically, there are 10 quizzes throughout the course and there is no opportunity for a makeup quiz. Performance on quizzes comprises 10% of the student's final grade in the course making this a relatively low risk assessment.

Questions that arose when implementing individual and group reading quizzes

Instructors may question some aspects of this implementation. Here I outline three points to ponder and include my decisions, knowing that there are both advantages and disadvantages to my implementation.

First, there may be issues about the quiz itself, including the best question format, the number of questions, and when the quiz should be distributed to students. I found generating the questions to be the most challenging aspect, in part because I wanted to challenge students by providing them with questions that tapped higher level learning (i.e., comprehension and application) yet wanted to restrict how much time was spent on answering the quiz questions. Typically, quizzes comprise three questions and I have used multiple choice questions, matching questions, and short-answer questions. The quiz is always given at the start of class.

Second, decisions about the groups will need to be made, including: group size, how to choose groups and whether groups remain consistent across time. In my class of 20 (typically), I instruct students to form groups of three or four (I have never had a group larger than four) and students self-select into groups (groups often comprise students who sit in close proximity to each other). Because all the names of students are included on the group quiz, I have no strict rule about the consistency of groups across time. In other words, students could change groups each week but, in general, this has not happened and the groups are mostly consistent.

Finally, some may be concerned about the time it takes to mark the quizzes, how to calculate marks and what to do about missed quizzes. Creating the questions is the most time consuming aspect in my experience. Marking of both individual and group quizzes and inputting grades into a spreadsheet typically takes 30 minutes or less per week (once the spreadsheet is created). For missed quizzes, students in my class earn zero on the individual quiz and do not receive additional points from group quizzes. Whereas some students have expressed concern about groups that are reduced in number due to absenteeism, I have not adjusted grading when students are absent. I also do not provide an opportunity for makeup quizzes. In general, absenteeism has not been an issue in this upper year course partly because we only meet once a week and students are informed at the

beginning of term (and it is specified on the syllabus) that attendance is expected and missing three or more classes will likely result in a failure.

Whatever name is used to describe this quiz format, it is an assessment tool that could be adapted across disciplines, courses, and years. I have used individual and group quizzes with immediate feedback tools (e.g., clickers, response cards) in lower level larger classes with success. However, I was hesitant to use quizzes in an upper year seminar because of the nature of a seminar but my concerns have been dispelled.

Responses on anonymous student questionnaires in general support the use of this format for quizzes, but also highlight that individual quizzes are perceived less favorably than the group component. For example, student comments on this component of the course include:

- “Quizzes made me anxious but I learned a lot;”
- “Even if I hadn’t read the papers as carefully as I should have, the group quizzes helped me;” and
- “Just do the group quizzes.”

In sum, I am an advocate of the use of this quiz format for my upper year seminar. After three iterations of this course where these quizzes were used, I have a reasonably large bank of questions (although some of the readings change across years) and I perceive three benefits. First, as a quick assessment tool, I think it promotes student learning particularly regarding identifying critical information in original articles. Second, because performance relies on both individual and group involvement, I think student anxiety is reduced and confidence is boosted. Third, I have observed increased discussion and an increase in cohesiveness in the class.

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Author

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