

Five Types of Quizzes That Deepen Engagement with Course Content

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I've been rethinking my views on quizzing. I'm still not in favor of quizzes that rely on low-level questions where the right answer is a memorized detail or a quizzing strategy where the primary motivation is punitive, such as to force students to keep up with the reading. That kind of quizzing doesn't motivate reading for the right reasons and it doesn't promote deep, lasting learning. But I keep discovering innovative ways faculty are using quizzes, and these practices rest on different premises. I thought I'd use this post to briefly share some of them.

Teaching Professor Blog Mix up the structure – Elizabeth Tropman makes a strong case for reading quizzes (highlights from her piece appear in the March issue of *The Teaching Professor*). She changes up quiz structures on a regular basis. Sometimes it's the usual objective questions, other times it's short-answer questions, or it might be a question that asks for an opinion response to the reading. Some quizzes are open-book; a few are take home. What an interesting way to give students experience responding to different kinds of test questions and to keep quiz experiences from becoming stale.

Reference: Tropman, E., (2014). In defense of reading quizzes. *International Journal of Teaching and Learning in Higher Education*, 26 (1), 140-146.

Collaborative quizzing – Lots of different options are being used here. Students do the quiz, turn it over, stand up and talk with a partner, to others in a small group, or with whomever they choose. After the discussion, they return to their quiz and may change any of their answers. Alternatively, students do the quiz individually, turn it in, and then do the same quiz in a small group. The two quiz scores are combined with the individual score counting for 75% of the grade and the group quiz 25% (or some other weighted variation). Collaborative quizzing is an effective way to generate enthusiastic discussion of course content and reduce test anxiety.

Reference: Pandey, C., and Kapitanoff, S. "The Influence of Anxiety and Quality of Interaction on Collaborative Test Performance." *Active Learning in Higher Education*, 2011, 12 (3), 163-174.

Quizzing with resources – Students take detailed notes on the reading because they're allowed to use those notes during the quiz. The same approach works with quizzes that cover content presented during class. Students may use their class notes while taking the quizzes. The pay-off is a good (or better) set of notes for use during exam preparation. Ali Resaei reports that open-note quizzing coupled with collaboration resulted in significantly higher final exam scores in his quantitative research methods course.

Reference: Rezaei, A. R., (2015). Frequent collaborative quiz taking and conceptual learning. *Active Learning in Higher Education*, 16 (3), 187-196.

Quizzing after questioning – Before the quiz occurs, students are given the opportunity to ask questions about potential quiz content. The instructor and the class work on finding the right answer or discussing the merits of possible responses. If someone asks a question that stimulates a lot of good discussion, that question becomes the quiz question and students have the designated amount of time to write an answer. Or if a variety of good questions have been asked, answered, and discussed by a variety of students, the professor who shared this option may tell students they've just had their quiz and everyone present gets full credit. This approach encourages students to ask better questions and facilitates substantive classroom discussions.

Online quizzes completed before class – Students complete an online quiz before class. The quizzes are graded electronically with a compiled summary going to the professor so there's enough time to look at the most frequently missed problems and/or to identify areas of misunderstanding. Then class time can be used to address those concepts that are giving students the most trouble.

The advantage of regular quizzes is that they provide ongoing opportunities for retrieval practice and much cognitive psychology research (like that summarized in the reference that follows) documents the benefits of frequent testing. Regular quizzing does improve class attendance and it gets more students coming to class prepared. Those are not trivial benefits, but with a few different design features, quizzes can also promote deeper engagement with the content, further the development of important learning skills, and provide teachers and students with feedback that promotes learning.

Reference: Brame, C. J. and Biel, R., (2015). Test-enhanced learning: The potential for testing to promote greater learning in undergraduate science courses. *Cell Biology Education—Life Sciences Education*, 14 (Summer), 1-12.