## **No-Penalty Quizzes Lower Statistics Anxiety**

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The use of frequent, low-stakes online quizzes in a dreaded course (Research Methods and Statistics) can lessen students' anxiety and lead to a stronger conceptual understanding of difficult material. Blackboard online testing allows for a wide variety of question formats, including multiple choice, fill in the blank, multiple response, and short answer. Quizzes can be prepared in advance of a course and completed by students outside of class time.

I ask my students to complete a short timed quiz on material addressed in a class session within 48 hours of each class. *Quizzes are "no penalty"*: if a student completes all quizzes (no zeroes), their course grade is unaffected, regardless of scores. They should answer without consulting notes, reflecting on what they believe are the important take-away messages of the class period. The quizzes serve as an analytic tool for both students and faculty. Short factual multiple choice items help students to self-diagnose basic understanding, while short-answer items ask students to extend thinking and explain their understanding of more difficult concepts.

I can quickly discern after a course meeting if the lesson objectives have been achieved. Timely feedback and engagement from faculty allow students to focus their study time and ask questions in a non-threatening environment. Online communication is a venue where students are generally comfortable asking questions in a content area where they are not confident. Student feedback from the use of these quizzes has been very positive and serve as an extension of faculty office hours, providing individualized support and feedback for students.