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**Derek Bruff\*** ([derek.bruff@vanderbilt.edu](mailto:derek.bruff@vanderbilt.edu)), Peabody Box #183, Vanderbilt University, Nashville, TN 37203. *Making the Most of Pre-Class Reading Assignments in Statistics.*

What are students in a probability and statistics course for undergraduate engineering majors likely to learn by reading their textbook before class? What kinds of pre-class reading quiz questions, answered by students online the night before class, are likely to help such students learn more from reading their textbook? These questions are investigated by analyzing student responses to pre-class reading quizzes, which consist of questions about notation, conceptual questions, computational questions, and “muddiest point” questions asking students to name a question they have about the reading. Initial results indicate that asking computational questions on pre-class reading quizzes helps students learn both computational and conceptual material from reading their textbooks, moreso than pre-class conceptual questions. This somewhat surprising result has implications for the role of conceptual and procedural learning in statistics courses. In addition, coding schemes for analyzing student responses to the “muddiest point” questions are being developed. One scheme offers a method for assessing how much insight into a student’s thought processes a particular response provides. Another scheme will help detect signs of “deep learning” in student responses. (Received September 16, 2008)