# THE IMPACT OF CLICKER TECHNOLOGY IN A LARGE INTRODUCTORY STATSTICS CLASS ENVIRONMENT

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Different teaching strategies and methods have been developed over the years to stimulate the interest and engage students in large lecture classes. One of the challenges of large classes is a strategy to create an active learning environment and to justify whether the method is successful in improving the student learning. Teaching statistics in a large class has inherent difficulties, the most evident of which being audience distance. The distance between the instructor and a considerable portion of the audience increases with size. There have been studies in the past which developed strategies to energize teaching targeting large classroom environment. We endeavor to add among those studies through developing novel-technology-aided, techniques in teaching large introductory statistics by integrating clicker technology to encourage student interaction in a traditional lecture environment. It is a handheld device popularly known as "Clickers" or "key-pads" or handsets used by students especially for large classrooms to transmit their answers to questions posed by the teacher in class. This classroom technology allows an instructor to present a question to the class and allow the students to enter their answers into some kind of device and instantly summarizes students' answers or feedback for the instructor in a form of a histogram. Although one early example of a clicker had a single response button (Poulis *et al.*, 1998), modern clickers usually have a 10-digit numeric keypad and often some accessory buttons including a power switch, a send button, or function keys that permit text entry (Barber and Njus, 2007).

This study was conducted to explore how clicker facilitates students' interaction in a large Statistics class. We will also evaluate the effects of clickers on learning outcomes of the students and analyze their perceptions and attitudes on the use of clickers in the classroom. This study endeavors to benefit both the Department of Statistics and the University learning quality in our large-sized Statistics courses. Consequently, its result can be used to further improve the quality of instruction as well as provide stimulating and innovative approaches in handling courses with large student enrollments. Lastly, the different strengths and major challenges that the faculty and students will encounter when using this technology will also be discussed.

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