In recent history, educators have observed important enhancements to classrooms and lecture halls. Gone are the days of delivering lectures via chalkboards and overhead projectors thanks to the emergence of smart classrooms. Today our classrooms are armed with computers, projectors, internet connections and PowerPoint, which allow us to deliver content and engage our students using methods that were unavailable in the past.

Engaging students is a challenge for all educators. Marks (2000) defined student engagement as the attention, interest, investment and effort students utilize in the work of learning. Research indicates that higher levels of engagement in the classroom are linked to improved performance overall (Klem & Connell, 2004), and engagement has been found to be one of the most powerful predictors of student achievement in school (Finn & Rock, 1997; Willingham, Pollack, & Lewis, 2002). The Classroom Response System (or clicker) is an emerging classroom technology that allows students to participate actively in the learning process. Students respond and interact via small remote keypads, which enable instructors to collect student responses to a posted question instantaneously. The answers are immediately scored and displayed on a projection screen for classroom discussion.

The use of the clicker technology can vary widely, including assessing students’ recall of facts and higher-order thinking skills (Bruff, 2009). Clicker questions can be used to assess student opinions, recall of facts or concepts, conceptual understanding, capacity to apply theory to practice, progress, and ongoing cooperative learning activities (Bruff, 2009). Generally, questions are prepared before class by simply inserting the questions on a new PowerPoint slide within the lecture. However, the system also allows instructors to add questions “on-the-fly” during class if concerned about student understanding or suddenly inspired with a good question.

Instructors can also use the clicker technology in a number of classroom activities to augment course needs. Clickers can be used to keep attendance directly by requiring an attendance “click in”, or indirectly by determining responses via the clicker during class. Utilizing the clickers in a large sport management classroom has shown to decrease absences, even if use is not tied to grade points. Simply having to interact in class with the clickers has improved attendance.

Instructors can use the system for summative assessment by grading quizzes or exams or for formative assessment by supplying real-time information about student learning to both the instructor and the students (Bruff, 2009; Caldwell, 2009). The feedback students receive can be used to monitor their own learning, and instructors can use it to modify how they manage class in response to student learning needs. Additionally, instructors can use clickers to increase or manage interaction through questions that: (a) start or focus discussion, (b) require interaction with peers, and/or (c) collect votes after a debate (Caldwell, 2007). The use of summative and formative assessment in the sport management classroom has allowed the instructor to gauge comprehension in real time. But what’s also useful is the ability to start and control discussion with a large class. Anonymous polling of sport issues allowed students to see classmates’ votes, which ignited conversations that were previously unattainable without the clickers. The ability to provide students’ a ‘voice’ to express his or her opinions and have them instantly displayed for discussion has made the clicker system a valuable resource in the sport management classroom.

It is important to note that this technology is only necessary in a classroom if it addresses an instructional deficit (Draper, 1998). For example, the ability to interact with students becomes increasing difficult as class size increases. Large classes often intimidate students, making them hesitant or unwilling to respond to questions for fear of public mistakes or peer disapproval (Caldwell, 2007). Clickers have the potential to increase participation by allowing students to respond anonymously to all questions and interact on a level that protects them from fear of failure or disapproval.

Clickers are useful in sustaining attention and breaking up lectures. According to Burns (1985), the average human attention span is approximately 20 minutes with recall of information dropping drastically after 15-20 minutes.
MacManaway (1970) reported that the longest time students could comfortably endure an uninterrupted lecture was 20-30 minutes. Therefore, periodic breaks in lecture with the insertion of clicker questions may help relieve student fatigue and improve attention (Caldwell, 2007; Middendor & Kalish, 1996). The adoption of the clickers a large sport management classroom has demonstrated an increase in attention and engagement of students. By incorporating quiz questions and polls, students have become active participants in the lecture. Students are more focused on the content, ask more questions, and engage more with the instructor and other students. The frequent breaks in lecture help improve attention by alleviating fatigue and monotony.

Indeed, the use of clickers provided a powerful and flexible tool for teaching by providing immediate assessment of understanding, maintaining students’ attention and promoting engagement during lecture, encouraging discussion and collaboration among students during class, and creating a safe environment for all students to respond to questions without fear or hesitation. Overall, the use of clickers has improved classroom learning, especially in a large sport management class, by eliminating routine lectures, engaging students with use of polls to encourage discussion, and motivating students in a fun, dynamic way.