Best Practices for Using iClicker Cloud/Reef:
UTEP’s Classroom Response System

A Classroom Response System (CRS) is technology that enables instructors to ask questions, gather student responses, display those responses in real-time, even grade them if necessary. A CRS allows instructors to verify student comprehension of course materials at any time during a class or lecture. Students use their own mobile device (laptop, tablet, or smartphone) to submit their response. REEF Polling is the classroom response system used by The University of Texas at El Paso.

iClicker Cloud/Reef helps

• Gauge prior student knowledge before covering new material
• Increase student engagement in the classroom
• Promote active learning
• Encourage student discussion
• Enhance student learning experience
• Evaluate effectiveness of teaching

To help use of iClicker Cloud/Reef in your classroom, we have compiled a list of Best Practices:

Best Practice #1: We strongly recommend that you assign course credit when using iClicker Cloud/Reef. The best results are typically obtained when points are awarded for participation irrespective of whether students have provided "correct" answers. Being flexible about assigning points also makes your students a bit more relaxed about using a student-response system as well.

Best Practice #2: Use for low-stakes assessments. Recognize that technologies sometimes malfunction. Use should be non-threatening and should be advertised to the students as an engagement tool.

Best Practice #3: From the very beginning, explain to your class the pedagogic benefits of class participation (student engagement, collaborative learning, instant feedback, etc.) using a student-response system. The literature is wholly consistent that you should not promote its use mainly as an attendance taker, quizzing tool, or as a way to punish students for lack of participation.

Best Practice #4: Questions should engage student attention and participation. A common mistake is to use too many questions during a class. It has been reported that student attention begins to drift after 10 minutes of traditional lecturing. Therefore 2-3 well-paced clicker exercises per 50-minute class session is reasonable.

Best Practice #5: It is not wise to use your SRS for grading purposes on the first day (or week of class). Have some practice sessions with students to make sure the system works well, especially if you are first time user of the SRS.

Best Practice #6: Export your reports on a regular basis to verify that you are producing the learning outcomes you planned for. Don’t wait until halfway through the course to find out that
you haven't been getting the right data!

**Best Practices #7:** Do *not* use iClicker Cloud/Reef solely to keep attendance. Students resent if instructors use them only to record attendance because of the coercive implication of it. Use in different ways to engage students and keep their attention.

**Best Practice #8:** Use iClicker Cloud/Reef with confidence, but manage students' expectations. Make clear how you will handle technical glitches at the podium, and how students should deal with individual problems. Explain how your grading procedure takes account of these problems, and that students will not be penalized for them.

**Best Practice #9:** When "too many" students answer a question incorrectly, go over the material again. Better yet, have students discuss the question among themselves. Then allow them to re-answer (i.e., re-poll) the question(s). Students enjoy the "lighter" moments of peer discussion, especially in a big lecture class.

**Best Practice #10:** Start and end a class or topical unit with a key conceptual question. Such pre- and post testing tells you how well you got the information across, and lets the students see what they have learned. Students appreciate the instant feedback that a student-response system provides.

**Best Practice #11:** If you assign homework readings, use the first 5 minutes of class to ask a few questions to see if students have read and understood the assignment. This is a great chance to be sure all students start your class session with the same prior knowledge.

**Best Practice #12:** Learn how to perform basic troubleshooting. From time to time, you may probably lose some data (most likely through simple human error), so get used to the idea: plan for it, and know how to respond! Better: learn how to prevent it.