

## **Risk-free Assessment using Response Card Review for University Students**

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*Abstract: The response card review game is a non-threatening, collaborative, and attention-grabbing review game that encourages the participation of all students. Moreover, this review serves as a monitoring tool that allows instructors to gauge which contents students have mastered and which require re-teaching. Through repeated and fast-paced review games, students can achieve long-term retention of the key course concepts. Most of all, the game provides a fun, rewarding, active, and engaging learning experience and creates a positive learning environment.*

*Keywords: Response Card Review, Assessment, Cooperative Learning, Practice Testing, Active Learning, Monitoring Student Performance*

### **The Introduction to the Course and the Need for the Quick Hit**

An introductory special education course (*Teaching the Exceptional Learner in the Elementary School*) is the only required special education course for students who will be general education teachers. This 3-credit course is one of the first education classes newly admitted education majors are required to take. The enrollment number for this course is between 20 and 25 each semester. Faculty teaching this course have an important responsibility to ensure that future teachers have mastered the basic knowledge needed to work with K-6 students with disabilities. The response card review game enables instructors to monitor student learning in real time, simultaneously reteach deficient content, and provide students a practice testing opportunity. For a demanding and intense class, the review game is an effective and efficient instructional tool to prepare students to achieve the course learning objectives.

### **Overview of the Quick Hit**

The response card review game is my modification of a research-proven learning strategy derived from applied behavior analysis by adding a game feature. It is a non-threatening, collaborative, active, and fast-pacing review game (practice test) that encourages the participation of all students. It also serves as a monitoring tool for student performance on important course contents. Test results of university students improved when they used response cards as a formative and ongoing assessment tool (Clayton & Woodard, 2007; Marmolejo, Wilder, & Bradley, 2004; Ruiz-Olivares & Mesa, 2023). Practice testing is considered as a highly effective learning technique (Dunlosky et al., 2013).

The game uses PowerPoint slides with sound and visual effects. Dry-erase card boards, dry-erase markers, and erasers are distributed to students to use them to respond to questions in multiple formats (e.g., short answer, true/false, fill-in-the-blank) that check basic knowledge. An example question is “What is this category? This category of exceptionality is marked by severe impairment of communication, social, and emotional functioning. Students with this disability experience apparent sensory deficit, severe social isolation, and severe language deficit.” On the boards, students write simple short answers in a timely manner. During this game, students learn

from each other by discussing possible answers with neighboring classroom members and help each other to identify the right answer and write it on their individual boards quickly. The review game encourages student engagement and provides students immediate feedback on their performance while simultaneously providing instructors with insights into students' understanding of the course contents presented.

### Steps for Implementation

#### 1<sup>st</sup> Step: Preparation Time!

- **Materials Ready!** Each student receives one dry-erase board and one dry-erase marker.
  - On one corner of the individual dry-erase boards, students write down 5 numbers (1 to 100) and 3 rainbow colors and keep them unchanged throughout the review game.
- **Volunteers Ready!** Two to three volunteers (Distributors) are recruited to keep the coupon containers and distribute coupons to eligible students while participating in the review game.
- **Rules Ready!**
  - The instructor goes over the most important rule: 'Students can shop around, look around, whisper, and help each other to find the right answer for each PowerPoint prompt, but should not yell out the answer in order to give all classmates some time to think.'

#### 2<sup>nd</sup> Step: Game Time!

- Following prompts on the PowerPoint slides, students write answers on their boards.
  - Each PowerPoint slide has a question, an answer (or possible answers) and numbers/colors. The answer and numbers/colors are hidden for now.
- Following the instructor's verbal response to, "*Show me the board!*" students simultaneously hold up their boards and show their answers.
- Once they have all raised their individual boards, the instructor quickly reads the answers on students' boards.
- The PowerPoint slide shows the answer along with numbers/colors.

#### 3<sup>rd</sup> Step: Reward Time!

- Those students who have the right answer and matching numbers/colors receive coupons. Volunteers pass out coupons while participating in the game.
  - For each question, coupon distribution is repeated quickly.
- Students write their names on coupons for the raffle.
- A coupon in the raffle bag is drawn by a drawing volunteer (different from the distribution volunteers) and the owner of the selected coupon receives a "Free Exam Question Pass" that can be used for one question on a future exam based on the students' decision. If time allows, multiple coupons can be drawn for small fun awards (e.g., candies).

### Outcomes

Testing is usually viewed as an unpleasant and undesirable part of students' academic life. However, students have expressed positive learning experiences with the response card review game, which is a friendly formative assessment activity tool. The comments from students and the peer reviewer

both indicated that students find the Response Card Review to be a valuable and stimulating part of their learning in EDU 30500. Students' qualitative comments in the mid-semester evaluation and the end-of-the semester evaluation for EDU 30500 showed the following reactions: *"tells us important points during the review game," "The instructor is very positive and energetic,"* and *"makes it easier and more fun to pay attention."* These comments demonstrate that student learning happened during the formative assessment process using response cards. A faculty peer reviewer observed EDU 30500 and described the environment during the review game as follows: *"Near the end of class, she distributed dry-erase boards for students to use in conjunction with some review questions. In order to ramp up the interest factor, the review questions were part of a game show-styled activity that incorporated bingo styled components, allowing the 'winners' to compete in a drawing for some candy. This type of activity fits with the broader theme of instructor's philosophy of teaching, which is to create a positive learning environment."*

### Adaptability to Other Disciplines and Contexts

In all disciplines with diverse learners, including students with disabilities, the Response Card Review can be easily adapted for basic knowledge mastery (e.g., vocabulary, facts, steps, definitions). The board review suits well when students are asked to write easy, simple, and short answers on the board in a fast-paced and interactive review.

There is almost no limit to the formats of response cards (e.g., big, small, write-on, pre-printed) and the classes they can be used for (Müllerke et al., 2019). Whether it is an introductory level course or an advanced course and whether it is an education course or a computer science course, for example, all classes have basic and essential information in which students must be fluent in order to advance their learning experiences to the next levels (e.g., application).

During in-person classes, instead of write-on response cards (which I use and describe in a step-by-step way in this Quick Hits), pre-printed cards showing simple responses (e.g., True/False, Yes/No, multiple choices) can be used to accommodate even more effective and instant student participation in review activities. At any rate, the grand purpose of the risk-free, distributed, repeated, and fun online or in-person review is to ensure that all students master the basic knowledge in the course and that both instructor and students perceive their preparedness for future activities.

### Conclusion

Assessment can be fun, not an undesirable necessity for learning. This game-like review serves as a tool for performance monitoring, re-teaching, student engagement, self-evaluation, and long-term memory. It helps to foster a positive classroom learning environment. Most of all, the review serves as a curriculum-based assessment tool. Teaching is not accidental, but intentional.

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