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**Extending the Power of the Quiz for Active Learning: Let Them Write it, Give it, Grade it and Take it!**

Submitted to the Experiential Learning Association

Eastern Academy of Management

2019 Conference

Wilmington, Delaware

**Abstract**

Using role reversal to foster active over passive learning, high levels of engagement with course material (leadership theories), and higher order thinking about the course material, students take on a peer-teaching role through the development of criteria based quizzes that they write, give, grade and take. An overview of the required components of the learning activity for knowledge acquisition and higher order learning about leadership theory, teaching and debriefing notes, and student responses are provided. This learning activity was designed for a required, online leadership course for MBA students in a program that is typically set in traditional classrooms. For many this is their first online course. This assignment is given at the beginning of the course on material that will be drawn on throughout the course.

Key Words: leadership, quiz, pedagogy, peer-teaching, active learning **Extending the Power of the Quiz for Active Learning: Let Them Write it, Give it, Grade it and Take it!**

Experiential learning is widely recognized as an effective way for students to learn about essential business management topics. … A key to the experiential exercise is that it provides an opportunity for the student to learn in a manner that shifts them from a passive to an active participant in the learning process. (Potter, 2009, p. 1)

 Quizzes are given for a wide range of pedagogical reasons including: fostering the reading of course materials, class participation, engaging participants, reducing procrastination, assessing readiness, and encouraging attendance (Bacdayan, 2004; Harrison, 2016; Lewis & Zalan, 2011; Perrin et al., 2011; Thompson, 2002). Among the host of benefits that proponents of experiential learning advance is that it seeks to promote active over passive learning creating opportunities for more engaged and lasting learning (Potter, 2009). In an attempt to combine the benefits of quizzes and an experiential learning activity, the exercise described in the paper uses role reversal to foster active over passive learning and high levels of engagement with course material (leadership theories) by assigning students peer-teaching responsibilities through the writing of, giving of, taking and grading a quiz with specified question criteria.

 The rationale for this learning activity is that when students take on the role of “teacher” through the development of a quiz that is administered to another student and graded, they will actively engage the material as they are held responsible for their own and others’ learning. The primary emphasis is on each student’s development of a quiz that requires close and careful reading of course materials, a demonstration of understanding and coverage of course material, and demonstrating through question development, higher order thinking about course material. An added benefit is that each student gets additional reinforcement by taking someone else’s quiz and getting and giving feedback. The expectation is that students achieve at least a grade of 80% when they take someone else’s quiz. This is an attempt to foster a safer learning environment that reduces anxiety, but still holds student’s accountable. It also allow for errors that may be the result of poorly written questions.

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**The Assignment: A student created quiz assignment for an online graduate course.**

**1. Introduction to the exercise.**

This format can be applied to a variety of topics or theories. The example below is for an online leadership course in an MBA program.

**2. Instructions for presenting the exercise.**

a) Learning Goals

* Students will develop an understanding of the leading, contemporary theories of leadership.
* Students will demonstrate higher order thinking about leadership theories through developing quiz questions that require the taker to distinguish, analyze, compare or contrast, categorize, apply, or explain assumptions.
* Students will produce a document that fosters peer learning.

b) This learning activity is designed for an online course and it requires that students are given substantial time for reading and then preparation of the quiz. It could also be modified for an in-class exchange. The timing varies depending on the amount of course material that must be covered. See item “f” below.

c) All students in the course participate in the learning activity. Each student develops a quiz.

d) Materials and Technology. Materials – a book or readings required by the professor. Technology – the example here is for an online course using a learning management system. In this case it is Blackboard Learn. The instructor must set up an assignment, a discussion board and a wiki. The students must also use the internal message system.

e) This is recommended for MBA courses.

f) Preparation. Students must be given ample time to read the book and review the material to prepare the quiz. I do specify clear deadlines for when the quiz is due, when it must be posted to the discussion board, the period when they must take another’s quiz and how long they have to grade and give feedback to their classmate(s).

 **3. The instructions given to the student. (**I allot the bulk of the points for the assignment to the writing of the quiz itself, but students receive some points for posting, taking and grading quizzes as well.)

**Assignment Instructions**

**Create and then take a Quiz Assignment**

 ***READ through the assignment carefully before beginning to draft your quiz!***

The book, *insert the textbook or readings to be used as the basis for the quiz*, introduces the complex nature of leadership. While most students come to the course with a working theory (often singular) of leadership based on experience and observation, we are laying a foundation for understanding and applying leadership *theories* about the complex nature of leadership. We will refer to these theories and their application throughout the semester.

In this assignment you will create an original quiz and then you will take another classmate’s quiz. If someone takes your quiz you should grade it within 24 hours and let the person know how he or she did on the quiz. My underlying assumption as to why this can be a useful learning tool is because I think that when you have to teach something you approach differently. You look closer for definition and meaning and you seek a greater understanding of the material than in a more passive student role. Please don’t misunderstand me, I am not criticizing anyone’s preferred learning style or abilities. This assignment was created as an interactive exercise to support learning in an online setting. I hope you’ll agree that it is worthwhile. Specific instructions on what the quiz must entail for full credit follow.

Step 1: Create an *original* quiz**.**

For a quiz to receive full credit it must contain the following elements:

1a**. Write 40 (***varies based on material***) multiple choice** questions that demonstrate mastery of the material. That is, in the writing of your 40 quiz questions, they must cover all chapters involved in that module’s assigned material – in this case the entire book. For each of the chapters write at least 4 different questions. Your total must be 40 questions so some chapters may warrant more than 5 questions while others only 4 questions. Each question must have at least 4 and not more than 5 choices (A,B,C,D …) This is worth up to ***insert number of* points**.

1b.The 40 questions should test your fellow students on important aspects of the material – as if you were teaching this course in front of a class. You’re not seeking minutia for its own sake. You should ask yourself the following: Do my questions test for the important concepts, theories, or ideas? If I’m asking about specific details such as a statistic or statistics, are they important to understanding the scope or impact of something that should be reinforced? This aspect of the quiz is worth up to ***insert number of* points**.

1c. Within those 40 questions at least ***insert number of* questions** must require substantive analysis and critical thinking by the test taker about the material in order to answer the question. That is, they should be more than the recall of factual data. Draw on Bloom’s Taxonomy (available online) or write questions that require your test taker to: distinguish, analyze, compare or contrast, categorize, apply, explain assumptions or the underlying argument. This is worth up to ***insert number of points***.

Step 2. Post your Quiz by the Deadline to the Discussion Board

Step 3. Take another student’s quiz.

1. Go to the link on the course menu “Wiki for Book Quiz Selection”. Select the name of someone who has posted a quiz that for which no one else has signed up to take. Put your name next to that person. You have now claimed that quiz. No one else can take it. This is on a first-come-first-served basis.
2. Copy the quiz you have selected.
3. Type up a response listing the question numbers and your letter choice and send a **Message** **to that person using the course Message system**. This is worth up to **? point(s)** if taken by the deadline.

Step 4. Grade your quiz that another student took**.**

* You must respond via a **Message** to that student telling him or her the how they did on your quiz. If any answers were incorrect supply the question # and what you thought should be the best response.
* Do this within 48 hours of the deadline. Failure to respond can result in a deduction of points from your grade.
* cc Me on the Message.
* Your goal should be to achieve at least an 80% passing rate on the quiz that you take.

**4. Debriefing**. This learning activity is debriefed in two ways. 1) Students get feedback from other students by the giving of their own quizzes, taking another student’s quiz and by giving feedback. 2) They also receive feedback from the instructor about the quality of the quiz that was written. In particular, students are assessed by how well they covered and demonstrated an understanding of the material and if they demonstrates higher order thinking about the material that was evident based on the questions and answers devised. As a result of reading the quizzes, I can also target areas for feedback for the whole class where students seemed to struggle to understand course material.

**5. Students reaction to the learning activity.**

Students feedback on the learning activity falls into the following categories when asked about the learning experience: 1) writing questions is “hard” 2) they have to read much more carefully than they typically do and they frequently report reading the material more than once in the process of writing the exam 3) they perceive that they have learned much more by taking on the role of instructor in the writing of the quiz and 4) they report that they are more prepared for taking the quiz of another and if they don’t know the answer immediately, they know where and what to look for when answering questions.

 Examples of Student comments:

“It made me read the book thoroughly and pay attention while also taking notes to use for questions.”

“I felt that I learned the material better by writing the exam because I was more careful when reading. I looked for questions when reading which kept me focused. I re-read a lot of parts to make sure that that question I was constructing was valid and meaningful.”

“Taking another student’s exam was fun for me. I thought it was interesting to see a few of the same questions I highlighted, which reassured me that they were critical to the topic. Also, I found finding the solutions for those I didn’t know relatively easy, so I would say that I was quite prepared for it.”

 “Yes, I feel that I have learned the leadership material better by writing an exam for my peers than I would have if I were just assigned the reading. By making each question and coming up with each answer choice, I was able to reflect on each concept more and strengthen my understanding overall. I read the book more attentively, and I believe I was able to make more meaningful questions this way.”

“I definitely think I learned the material better from preparing an exam. I find that reading chapters of text (especially at once) can be difficult making it hard to keep your interest as you go along. I also don't think you retain a lot of the information from just reading it. Putting together the exam helped me retain much more information and helped me better understand the concepts throughout the chapters. I did find that I was much more familiar with the chapters after creating my exam. I didn't have to spend as much time looking through the text for the material I needed.”

**6. ELA Presentation.** The learning activity will be demonstrated at the ELA Conference through an abbreviated example of information that following the format above.

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