# NC STATE UNIVERSITY

**The Graduate School** 



## Certificate of Accomplishment in Teaching Program Workshop Reflection Assignment #5

FIT: Fundamentals in Teaching – Creating Tests that Assess Higher Order Thinking Skills

## Part I: Describe

**Title of the Workshop/Event:** FIT: Classroom Assessment Techniques - Creating Tests that Assess Higher Order Thinking Skills

**Purpose Statement:** The purpose of this online workshop was to teach workshop participants how to create tests that incorporate the higher level thinking skills addressed in Bloom's Taxonomy and also informed the participants how to avoid giving away test answers with the question.

Lead Presenter(s): Online Workshop, Directed by Dr. Barbi Honeycutt

Date(s)/Location of the Event: 2/9/2012-2/12/2012, Online Moodle Workshop

## Approximate Number of People Who Attended the Workshop: 20 (My Group)

## **Brief Description:**

This online workshop involved watching a video and then participating in a discussion forum on Moodle. The video and the Powerpoint that accompanied it provided participants with an overview of Bloom's Taxonomy followed by a detailed explanation of how to write proper test questions. The discussion enabled participants to practice writing test items and analyze questions developed by other instructors.

## Part II: Analyze

1. Why did you choose to attend this workshop? What were you hoping to learn?

One of the reasons that I attended this workshop is the online component. It is easy to do workshops like this at my own leisure. I also felt like a lot of the tests I had taken in Engineering only required me to memorize formulas and regurgitate information. I never really had to apply the information. When I finally got an internship, I realized that applying the information is much harder than simply spewing out something I've read. I was looking forward to learning how to craft questions that would make students "think." I knew that I was going to have to create tests for my class this semester, so I wanted to learn how to make my tests fair, but also make the students really have to apply their knowledge.

2. What assumptions did you have before participating in this workshop?

I expected to be given a presentation by someone who had experience in writing test questions at the collegiate level. I also assumed I'd get practice in writing these questions and also receive feedback from my peers participating in the workshop. Based on my past experiences, I also assumed that the presenter would be reputable and have experience on the topic. I figured that she would be available to answer any questions that I might have. I also assumed that, even though the workshop was online, it would be interactive and engaging. I based this assumption off of my previous experience with these types of workshops.

3. Were your assumptions correct or incorrect? Explain how your thinking was either supported (meaning your assumptions were validated) or how your thinking was changed (meaning your assumptions were incorrect)

Most of my assumptions were correct. The sources and information that Dr. Hurd provided us with were very reputable. I was provided with very useful information about test questions and how to properly craft them. I was also able to interact with my peers, which is always a useful tool to aid learning. I was also provided with resources to follow up with, including Dr. Hurd's email in case I were to have any questions. I was also exposed to the other participants perspectives and their test questions. This allowed me to see the various techniques that they were utilizing. I also received input from them on my test questions, which definitely helped me.

4. What information was most meaningful for you? Be specific.

One of the most meaningful pieces of information for me was the section on the anatomy of an exam question. I learned that a question should have three parts; A key word, an object, and a limiting factor. It helped to have the method behind an exam question broken down into parts. That certainly made crafting the questions a bit easier. It was also meaningful to see how other people were able to write questions that addressed higher level thinking skills. These were questions I would not have been able to create on my own. It was interesting to see questions that fulfilled their purpose in a way I wouldn't have thought of.

5. How do you think you will use this information? Be specific.

I had created a rough draft of the first exam for the class that I am teaching and I actually added and revised a few questions that would address the higher level thinking skills. I realized that I had quite a few questions that only addressed the lower levels of Bloom's Taxonomy. I also added limiting factors to questions to allow students the ability to narrow down where to find the answer. So, the information I obtained from this workshop helped me almost immediately in the creation of exams for the class that I am currently teaching.

6. What information do you still need to learn related to this workshop? What is your plan for learning more about this topic?

I did learn a lot from this workshop but I feel as though I need more information about how to address higher level thinking education skills for Engineering. This particular workshop had several main points geared toward multiple choice questions. For my class, none of the questions I ask are multiple choice. Since I am teaching a new software program, I'd like more information on how to address the higher level thinking aspect of exam questions. My plan for learning more is to communicate with some of the past guest speakers that we've had. One person that I will contact is Dr. Anna Howard. I met with her to get information about clicker questions. I will go to her for advice for grading fair exams for higher order thinking skills questions.