## **Choose and Match your Own CATs**

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This active learning activity was designed for GS 9500 The Theory and Practice of University Teaching but can be adapted for almost any course to assess understanding of course material and to encourage critical thinking.

#### INTRODUCTION

Classroom Assessment provides teachers with continuous feedback on teacher effectiveness and gives students a measure of their progress as learners. In order to correctly determine what kinds of feedback to collect, teachers should identify specific teaching goals that they wish to assess. Classroom Assessment Techniques (CATs) are a collection of "tools" that teachers can use to receive feedback on how well they are achieving these teaching goals (Angelo & Cross, 1993).

In order to introduce our learners to various CATs, we used a modified CAT: "The Categorizing Grid" that also served as an active learning activity. In this activity, learners categorized which classroom assessment techniques worked for their own personal learning goal (Angelo & Cross, 1993). In doing so, they are prompted to make explicit and implicit rules in the categorization of each CAT. Compared to traditional didactic methods, this active learning activity promoted student engagement and fun with the intention of improving learning and learner performance in conceptual and problem-solving tests (Hake 1998).

#### **KEY CONCEPTS**

This graduate lesson on assessment is designed to address the following key concepts:

- Let students evaluate what classroom assessment techniques (CATs) are appropriate based on concrete teaching goals
- By working with a large grid-pattern on the floor, learners create a useful resource that summarizes which CATs are appropriate for their learning goal, a helpful takeaway for their own teaching
- Expose students to multiple classroom assessment techniques in a way that promotes critical thinking in a learner-centered environment
- Encourage quiet students to participate in class conversation using a modified snowball discussion: individual students are given a chance to think about a question and form groups 2 to discuss their responses before they merge with a larger group

## **LEARNING GOALS**

The learning goals for the "Choose and Match Your Own CATs" lesson are:

- Given various CATs, students will evaluate which techniques are most appropriate to use in order to assess a specific learning goal
- Groups will verify each decision by discussing the strengths and limitations of each CAT
- Working together as a class, students will produce a CATs summary table to be used as a resource for their own teaching

### **DESCRIPTION**

#### **Materials**

- Poster Paper (6 total) each sheet will have a learning goal written on it (Learning Goals Chosen for this particular lesson: Assessing Knowledge, Assessing Analytical and Critical Thinking Skills, Synthesis and Creative Thinking, Problem Solving, Application/Performance, Learner Attitudes/Values)
- Column and row headings ("CATs" and "Learning Goal", respectively)
- A printout describing each CAT
- Check Marks/"X" marks (printed or created with construction paper)

## Set-Up

- Prior to starting the presentation:
  - The floor is laid out using tape in the pattern indicated in figure 1 (see appendix)
  - Learning goals, columns, row headings and CATs descriptions are placed in appropriate areas
  - Lay out the chairs and tables as indicated in figure 1 (see appendix)

# **ACTIVITY**

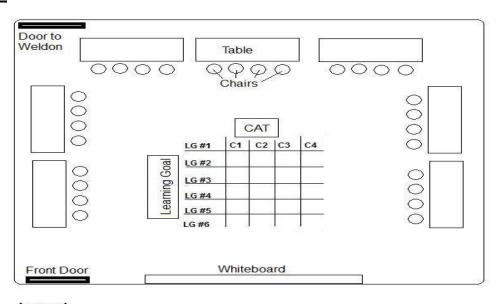
- Students have to run to a spot that corresponds to a learning goal that may apply to their course (they may be thinking of teaching/have been teaching) or one that applies to their discipline
- If all spots are taken, they must find another learning goal to stand on
- After they have found a spot, students will pick up the corresponding CAT based on what column they are in
- The class is divided based on learning goal # (row)
- Each group then breaks into two smaller groups and evaluates whether or not their CAT effectively measures their learning goal

The following questions can be used to probe group discussion:

- o Would this CAT allow you to assess the learning goal you chose?
- What type of class would this work best for? (Small/Large/Online/Offline)
- o How much preparation would this require?

- o How much time would it take for students to respond to the assessment?
- What would you do with the data collected? How much time would it take to analyze the data?
- Groups come back together to discuss which CATs worked and which didn't
- Groups come to the front and each person places a check mark where a CAT fits with their particular learning goal and an X mark where the CAT does not work with their learning goal
  - Discuss a particular CAT that worked and why
    - o If there is time, they will report on a CAT that didn't fit
    - o After the activity the TA or Professor will summarize the session

#### **APPENDIX**



LG #1: Learning Goal #1 C1: Cat #1

Figure 1: Layout of TSC room 120. Note: This is designed for a class of 24 students. The number of Learning Goals and CATs will depend on student numbers

#### References

Angelo, T; Cross, K. (1993). Classroom Assessment Techniques: A Handbook for College Teachers. Jossey-Bass

Hake, R. R. (1998). Interactive-Engagement vs. Traditional Methods: A Six-Thousand-Student Survey of Mechanics Test Data for Introductory Physics Courses. *American Journal of Physics*, 66(1), 64–74