

Assessing Student Learning at...

Key Points in the Semester

Primary Trait Analysis

Primary trait analysis (PTA), adapted by Walvoord and McCarthy (cited in Walvoord & Anderson, 1998) combines traditional grading practices with classroom-based assessment. This technique asks the instructor to link specific goals and objectives outlined for a particular course assignment to varying levels of achievement (e.g., excellent, good, fair, poor). These levels are based on the degree to which the student has met the identified learning outcomes for the assignment.

To conduct PTA, the instructor:

1. breaks down individual components, or primary traits, of an assignment that are key to successfully meeting assignment requirements;
2. identifies levels of achievement for each trait; and
3. constructs a grid (rubric) on which student achievement is scored.

For example, an essay for an English course might be analyzed for primary traits and levels of achievement as follows:

| Trait | 5-Excellent | 4-Good | 3-Adequate | 2-Weak | 1-Poor |
|--------------|-------------|--------|------------|--------|--------|
| Introduction | | | | | |
| Argument | | | | | |
| Grammar | | | | | |
| Tone | | | | | |
| Conclusion | | | | | |

The instructor would then check off the score for each of the five primary traits listed as important for the assignment, with a minimum total score of 5 (poor) and a maximum total score of 25 (excellent). In this way, PTA can reduce some of the subjectivity in grading and facilitate more reliable tracking of student progress on important course objectives throughout individual assignments.

This example of a PTA rubric is very simple. Others are more complex, providing definitions of what an “Excellent” introduction to an essay would look like and sometimes assigning varying numbers of points to different traits based on their importance in the assignment.

Minute Paper

The minute paper may be one of the most widely-used and accepted methods of classroom assessment. This method offers a quick and easy way to assess student learning at a particular point in time. Credited to Angelo & Cross (1993), the minute paper not only provides helpful feedback but requires little time or effort to administer. Several minutes before the end of class, you might stop your lecture or end the discussion to ask students to take one or two minutes to answer, in writing, several questions about the day’s work. These questions might include “What is the most important thing you learned in today’s class?” or “Do you still have questions about the material we covered today?” Students respond on a sheet of paper and hand them in before leaving.

You can use the minute paper to assess:

- Student recall and understanding
- Student evaluation of what they recall
- Student ability to self-assess their learning and understanding

Misconception/Preconception Check

The misconception/preconception check is a way to assess what students bring with them into class, or how they are processing information at various points in the semester. Used at the start of a course, the misconception/preconception check is a short survey, questionnaire or essay-type evaluation that asks students to comment on information and key points relevant to course content. Student answers provide the instructor with an understanding of the extent of “real” understanding or knowledge that students bring with them on the first day of class. It also offers information about misconceptions students may also have, misconceptions that the instructor can subsequently address and clear up during class.

The misconception/preconception check can also be used at various points in the semester to help assess whether:

- misconceptions are clearing up or growing
- preconceptions are being reshaped
- students are improving in their ability to assess relevant course content and filter out untruths or inaccuracies

Source: OAPA Handbook COURSE-Based Review and Assessment - UMass Amherst, adapted from Angelo & Cross, Classroom Assessment Techniques (1993)

Muddiest Point

The muddiest point exercise (Angelo & Cross, 1993) is a variation of the minute paper. Administered during or at the end of a lecture or class discussion, the muddiest point exercise asks students to think about what went on in class that day and to write about what was the “muddiest” (least clear) point in that day’s class.

This exercise:

- asks the student to reflect on the class lecture or discussion
- asks the student to decide what was understood and what was unclear
- asks the student to self-assess learning and to identify what did/did not work

One way to address the potential for confusion on key points is to incorporate into your course syllabus pre-planned times to assess students for their “muddiest point.” You can also use a more informal approach and assess for confusion or misunderstanding when you sense there may be a problem.

Punctuated Lectures

The punctuated lecture technique provides immediate, on-the-spot feedback on how students are learning from a lecture or a demonstration, and how their behavior may be influencing the process. It also encourages students to become self-monitoring listeners and self-reflective learners. This technique is designed for use in classes where lectures or lecture-demonstrations are a primary method of instruction.

This technique requires students and teachers to go through five steps:

1. Listen - students begin by listening to a lecture or demonstration
2. Stop - after a portion of the presentation has been completed, the teacher stops the action
3. Reflect - students reflect on what they were doing during the presentation, and how their behavior may have helped or hindered their understanding of the information
4. Write - students write down any insights they have gained
5. Feedback - students give feedback to the teacher in the form of short, anonymous notes

Punctuated lectures can be used to monitor student listening skills throughout the semester by asking students to save their written reflections in folders. After they have done several of these self-reflection assignments, ask students what they have written, looking for patterns and changes over time.

Chain Notes

To respond to Chain Notes, students in a lecture course pass around a large envelope on which the teacher has written one question about the class and/or teaching of the class. The students have all been given index cards beforehand. When the envelope reaches a student, he or she spends less than a minute writing a response to the question, then drops the card in the envelope and passes it on. This assessment technique results in a rich, composite record of each individual student’s reactions to the class in action. In this way, Chain Notes allow teachers a view of their class through all their students’ eyes.

Chain Notes are most useful in large lecture or lecture-discussion classes where many students have little direct contact with the teacher.

When you review the cards in the envelope, categorize them into relevant groups: engaged/not engaged; interested/not interested; question/praise/neutral comment, etc. Try to detect patterns in responses. Discuss these patterns in your feedback to students. Ask for suggestions to promote more effective teaching and learning.

Classroom Opinion Polls

You may already use de facto opinion polling in your classes when you ask students to raise their hands to indicate agreement or disagreement with a particular statement. Create a short survey (one or two questions) and ask students to complete it and hand it in. By making the Classroom Opinion Polls anonymous, they will provide more honest and accurate results for you.

Classroom Opinion Polling can help you discover student opinions about course-related issues. In this way, you can better gauge where and how to begin teaching about issues that come up in students’ responses, and where potential conflicts or divisions may arise. Students also learn about their own opinions, compare those opinions to others’, and test their opinions against evidence and expert opinion.

Classroom Opinion Polls are particularly useful in large lecture classes where there is only limited opportunity for students to express their thoughts, in preparation to discuss a controversial issue, or to assess student opinion after you have presented class material.

Source: OAPA Handbook COURSE-Based Review and Assessment - UMass Amherst, adapted from Angelo & Cross, Classroom Assessment Techniques (1993)

Use the Classroom Opinion Poll to evaluate student learning over a period of time or over the course of a semester by creating a pre- and post-assessment poll. This assessment method will help you determine whether and how students' opinions have changed in response to class discussions and assignments.

Reading Reaction

We often ask students to read and synthesize a wide variety of material during a course. Because the reading for one course is only part of the entire reading load a student may carry, the reading is often done in a hurry with the main purpose not to learn but "to get through it."

This poses two problems:

1. The student is not reading to understand and gain knowledge, but reading to complete an assignment.
2. The student may not have the time or inclination to think critically about the reading, to judge its validity, or to evaluate its worth.

The reading reaction paper forces students to slow down the reading process and asks them to actually think about what they have read. It may be administered as a short homework assignment to be completed after the reading has been done or as an in-class assignment to stimulate class discussion. Typically, a reading reaction paper asks students to respond (or react) to the reading (i.e., what did the author say, did you agree with what was written, why/why not, etc.) in one page or less (typed or handwritten). Part of the class that day can be used to discuss student reactions to the reading, or the papers can simply be passed in to provide feedback on student levels of understanding. Either way, it is a good idea to record at least a pass/fail grade for these exercises to ensure student commitment to the task.

The reading reaction paper helps students learn by:

- building skills needed for critical thinking and argument construction
- encouraging students to take charge of a reading assignment and to judge its worth
- asking students to "think" instead of simply taking in the words as they read

Paper Reaction Exercise

In addition to asking students to analyze assigned reading, we can ask them to think critically about their own writing. The paper reaction exercise asks students to reflect back on a paper they have just written for course credit. It is usually administered during class just prior to when the students turn in the paper and is attached to the paper for the instructor's information and feedback.

To complete this exercise, students might be asked to:

- think about and write a few sentences on what they really like about their papers
- write what they do not like about their papers and what they would change if they had the time
- reflect on one or two things about the subject that are still unclear even after writing their papers

This technique can be particularly effective when you have clearly stated objectives/grading criteria (using a scoring rubric like the PTA) of the paper and ask students to evaluate their own paper using these criteria.

The purpose of the paper reaction task is to:

- assess student ability to reflect on what they have learned and how well they have transferred that learning into their own words
- allow the instructor greater insight into student thought processes as they relate to reading, writing and interpretation skills
- open up the opportunity for discussion about the assignment in general, the papers in particular and student response to both

Noteworthy

Punctuated Lectures, Chain Notes, and Classroom Opinion Polls are particularly useful for faculty teaching large lecture classes.