



# Assessing Preparation

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## Purpose

Assessing students' preparation can be an effective method for motivating them to complete their work and for measuring their level of understanding prior to a classroom experience.

## Description

### Instructional Benefits

Preparation assessments tend to be more diagnostic than evaluative. In order to assess and utilize the information they provide, use the following steps:

1. Determine students' time and effort.
2. Measure the depth and breadth of understanding.
3. Tie preparation assessments to application-based, in-class learning activities and outcomes.

The information gained through the assessment of preparation is useful in planning and/or adjusting in-class learning experiences. Assessing preparation also engages the students' higher-order thinking skills prior to class learning (such as analyze, synthesize, problem-solve, apply).

### Motivational Benefits

Preparation assessments have the potential to motivate students to do the preparation necessary to contribute in class. This stimulus works best when the following methods are applied:

- **Give incentives.** Give the assessments weight with an appropriate percentage of the overall course grade.
- **Validate preparation.** Periodically acknowledge good examples of specific students' preparation. This demonstrates you are reading their preparation assignments.
- **Maintain alignment.** Tie preparation assessments to other course assessments.

Students find motivation to prepare when such efforts correlate with higher performance on other learning activities or assessments in the course.

## Examples

As you consider the following examples, keep in mind that these tools can be employed either prior to class or during class.

- **Readiness Assurance Process.** Larry Michaelsen, in his work on Learning Teams describes a means of assessing preparation that is at once highly structured and endlessly flexible. After having studied material before class, students are given an individual quiz immediately upon arriving in class. Once all the individual quizzes are completed, the same quiz is administered to teams of students. Special forms or marks are used so that as the team arrives at a consensus around an answer, they can scratch off or make off their choice and know immediately if they were correct or not. If incorrect, they can select another answer for fewer points. This is then followed by a group appeals process and direct instruction around misconceptions.
- **Clickers.** Clickers can provide a quick way to administer and grade a quiz. This can be particularly helpful as part of a Readiness Assurance Process.
- **Self-assessment.** Criteria can be given to help students determine the amount of credit they should award themselves for the level of preparation invested. eLearning has options for setting up both self-assessments, using rubrics to guide the scoring.
- **Quizzes.** Tradition timed quizzes are an effective approach to assessment. Often, allowing students



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multiple attempts increases mastery and identifies deficiencies on a given subject.

- **Pose a question or problem.** With the preparation material acting as a framework, formulate questions to be answered or a problem to be resolved. Responses can be posted in blogs or discussion for both you and your students to read and comment on.
- **Written summaries.** Examples of written preparation work can include “insight papers,” “reading response sheet,” daily preparation papers, eLearning journals, class preparation forms, minute papers, ½ sheet summaries, one sentence summaries, or the “muddiest point.”
- **Concept mapping.** This effective preparation assessment method instructs students to draw and connect relationships between key concepts from preparation materials. This is also often referred to as mind mapping. With appropriate content, this approach allows you to see if and how students identify major concepts or principles and diagram their relationship.
- **Concept tests.** The concept test is designed to assess a student’s understanding of a concept and determine the type and level of the learning activity required. In class, students are asked to vote on the answers to a multiple-choice question. Based upon the percentage of correct responses (counted either electronically or manually), the instructor responds accordingly: 1) high % correct—move on; 2) moderately high to moderately low % correct—have students pair up and either teach or convince one another in order to increase understanding; 3) low % correct—you teach the concept.
- **Teaching techniques.** Using simple teaching techniques can often give you an idea of where your students’ understanding is. Such techniques include cold calling, voting, asking a student to teach a concept or principle, having students write responses on what was difficult or easy to understand, use case studies, or role play that apply preparation materials, and a number of other peer learning tools.

### Tips

- **Give assessments pertinence.** Design preparation assessments that tie directly to the upcoming learning activities. Students are more likely to prepare when they see such efforts impacting what is discussed in the class.
- **Understand assessment scores.** Use preparation assessment results in planning and/or altering class instruction. Having data on what students already understand often opens up time in the classroom for activities other than unnecessarily reviewing material.
- **Notice student efforts.** Increase student motivation by commenting on their work. Compliment students publicly. This proves to students that you are reading their assignments.
- **Give assessments weight.** Incorporate a percent of the overall course grade to preparation assessment relative to its importance in the overall course learning experience.
- **Establish meaning.** Teach students the purpose and importance of preparation, which is particularly helpful when done early.



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## Pitfalls

- **Length of problems.** Some preparation assessments can become overly time-consuming.
- **Ineffective assessments.** Poorly designed quizzes can actually hinder learning and decrease a student's desire to prepare.

## Resources

Egbert-May D. (2005). Active homework: Preparation for active classes. *Frontiers in Ecology and the Environment*, 3(5), 283-284.

Modell, H. (1996). Preparing students to participate in an active learning environment. *Advances in Physiology Education*, 15(1), 69-77.

Liebler, R. J. (2003). The five minute quiz. *Journal of Accounting Education*, 21(3), 261-265.