

Assessing Student's Prior Knowledge

Students do not come into our courses as blank slates, but rather with knowledge gained in other courses and through daily life (DiPietro, Ambrose, Bridges, Lovett, & Norman, 2010). Here are 5 strategies to assess students' prior knowledge.

1

Talk to Colleagues

This approach will be beneficial if your students are coming from a prerequisite course. Here are a couple of questions you could ask: What concepts or skills did students seem to master easily? Which ones did they struggle with? Did students seem to hold any systematic and pervasive misconception? This kind of information from colleagues can help you design your instructional activities so they effectively connect to, support, extend and, if needed, correct, students' prior knowledge.

2

Administer a Diagnostic Assessment

The idea here is for you to collect information about your students. Think about the skills and knowledge they need to master in order to be successful in your class. Then, you can create a short quiz, or an essay, at the beginning of the semester. Take some time to review the results and plan a remediation plan. This can be done in class, or online.

3

Have Students Assess Their Own Prior Knowledge

One way to have students self-assess is to create a list of concepts and skills that you expect them to have coming into your course, as well as some concepts and skills you expect them to acquire during the semester. Then, ask the students to rate their skills. Examine the data for the class as a whole to identify areas in which your students have either less knowledge than you expected. This information will be useful to calibrate the first couple of weeks.

4

Assign a Concept map activity

Ask them to construct a concept map representing everything they know about the topic. You can use the main topic or theme of your class, or you can provide a question. Be sure to be specific on the information you are looking to obtain from the students. Also, ask the relationships among the concepts. This will give you a better understanding of their knowledge and will uncover misconceptions.

5

Look for Patterns of Error in Student Work

Students' misconceptions tend to be shared and produce a consistent pattern of errors. Look for those patterns on their work, and provide feedback as earlier as possible. Sometimes, these errors become misconceptions that students may carry for years.