

Value-Added Assessment (Pre- and Post-testing)

Definition:

Value-added assessment attempts to measure student growth over time, from the time that a student enters a program until the student graduates. The most common method is pre- and post-testing, although other types of evidence could conceivably be developed.

Advantages:

- Assessing the students when they first enter a program can establish a firm benchmark against which to measure growth or value-added.
- Pre-testing is especially helpful for measuring student knowledge, or cognitive learning, and skills, though somewhat less so for measuring values.
- Pre- and post-testing may work best with traditional four-year undergraduates rather than the more common situation now where students enter, stop-out, transfer, return, and take six years or more to graduate.
- Pre- and post-testing can be easily scored.
- Pre- and post-testing can be relatively easily analyzed using statistical procedures.

Disadvantages:

- Pre- and post-testing offers little useful information if the students know little or nothing about the subject of the program when they first enter it.
- Deciding how to develop meaningfully comparable pre- and post-assessments is difficult, since the pre-test may have to be so basic that any additional learning could be seen as "growth" or value-added.
- If the assessment is not based upon a highly structured curriculum where the objectives are taught toward and adhered to across all courses in a systematic, it may be difficult to demonstrate the causes of the value-added or to correlate the results of the post-test with the specific courses within the curriculum.

Varieties of Value-added Assessments:

Note: Virtually all other assessment methods can be used for value-added assessment. Pre- and post-testing happens to be the most common form.

Pre- and post-tests: These provide concrete data that could be easily scored analyzed using statistical procedures.

Portfolios: Portfolios are almost impossible to construct for the pre-assessment.

Essays or research papers: If the assignments and criteria are carefully constructed, these can be scored using a common rubric.

Embedded assessments: The type of student work used as an embedded pre- and post-assessment will probably be one of the above. But you could also embed a common assessment, such as a test item or a research task, in a set of courses across all years of the student's program.

Standardized tests: Commercial testing agencies and companies have produced a variety of standardized tests that could be used for this purpose. See the discussion of standardized tests for the advantages and disadvantages.

Creating and designing a value-added assessment system:

1. Determine the specific broad learning objectives for the academic program;
2. List the kinds of student work that students might include to demonstrate mastery of the learning outcomes;
3. List the specific knowledge, skills, and/or values that you might want to measure through a value-added process;
4. Decide upon the type of pre- and post-assessment that you will use;
5. Determine which faculty will create the pre- and post-assessment or review examples of commercially available tests for this purpose;
6. Decide when and where the pre- and post-assessments will occur;
7. Decide how the assessments will be evaluated and analyzed;
8. If the pre-assessment is given when students first enter the program, inform those in-coming students that they will be given a pre-assessment, especially if it is to be given outside of a particular class.