

Creating Assessments

In this chapter, we will be exploring ways to assess student learning. It may seem odd to be doing this before creating learning materials, however, it is common practice. There is an instructional design method, called Backwards Design or [Understanding by Design](#), that has popularized the process of creating assessments right after creating learning objectives.

Learning Objectives

After completing this chapter, you will be able to:

- Describe the concept of assessment for learning versus assessment of learning.
- Describe the difference between formative and summative assessment.
- Identify appropriate assessment instruments.
- Recommend assessments for instructional interventions that are authentic and measure the intended learning for those interventions.

One of the reasons for creating assessments first, is to ensure the assignments align with the learning objectives.

Important

It is not **fair** to create assessments that do not align with performance objectives or learning objectives.

In this chapter, we will be exploring ways to assess student learning. It may seem odd to be doing this before creating learning materials, however, it is common practice. There is an instructional design method, called that has popularized the process of creating assessments right after creating learning objectives.

One of the reasons for creating assessments first, is to ensure the assignments align with the learning objectives. It is not fair to create assessments that are not tied to what students are being expected to learn.

Measuring Learning

Assessment is all about measuring learning.

There is a lot of terminology associated with assessment, which we will cover first. Then we'll look at some better practices for creating **criterion referenced learner assessments**.

Terminology

Assessment and Evaluation

The terms assessment and evaluation are not used consistently in the field; however, I use them consistently and in a very distinct way.

I use the term **assessment** when I am talking about something that is done for or of students. For example, an assignment in a course is a learner assessment.

I use the term **evaluation** when I'm talking about something that is done for or of programs or courses. For example, at the end of a course you do a course evaluation where you as a student, tell me how I am doing as an instructor as well as providing your input on the overall structure of the course and learning materials. You have likely completed end of course evaluations for almost every course you have taken. These are done to help improve the program, not how to help an individual learner improve.

Keep this in mind as we explore learner assessment. We will add program evaluation later in this book.

Formative and Summative

Both assessments and evaluations can be either formative or summative.

Formative assessments are intermediary assessments that occur in the middle of the learning process and their primary purpose is to provide feedback to improve student learning. Formative assessments typically cover a specific segment of the material.

Summative assessments occur at the end of the course and are intended to assess the student achievement at the end of the course. You can consider a final assignment or final exam as a summative assessment.

Criterion and Norm Referenced Assessments

Assessments can be either norm referenced (ranked) or criterion referenced (competency).

Norm referenced tests are used to compare students to one another. You will be familiar with them as national standardized tests are norm referenced. These tests take a long time to develop and require special training to develop.

Criterion referenced tests are used to validate or help students learn specific things. In this course we will be focused on criterion referenced tests. These are what most instructional designers create, as their purpose aligns with the purpose of the courses we create.

Traditional and Authentic Assessment

Traditional assessments consist of the assessments that you are familiar with from school – those include quizzes, tests, and essays. This type of assessment focuses on *the knowledge of the learner*.

Authentic assessments, on the other hand, are typically performance based. When designing authentic assessments, your goal is to make the assessment as close to what is done in the performance context as possible. For example, rather than quizzing you on how to write a good learning objective, which would test your knowledge about learning

objectives, I have you submit learning objectives for your specific instructional design documents. The creation of an instructional design document is a form of authentic assessment. Other forms of authentic assessment include creating portfolios, demonstrating skills, and simulations.

Assessment of Learning versus Assessment for Learning

Assessment can be done as a way to help the instructor determine what a student needs. In this way, you are assessing for learning. When you assess for learning, the information gained from the assessment is used to help direct future learning.

Assessment of learning is a way to measure whether or not a student has learned the material. When you are doing assessment of learning, you are not necessarily using that information for learning purposes, rather, the focus is on measurement.

Creating Criterion Referenced Learner Assessments

The criterion we use for creating assessments are the learning objectives. In this step of the instructional design process we look at each of our learning objectives and ask, how will we validate that the learner has successfully achieved the learning objective?

Creating learning objectives that are measurable makes this process a lot easier. This is largely why we create learning objectives using Bloom's verbs – because those verbs are measurable.

Read through your learning objectives and ask, how can I validate that learners have achieved this objective?

Learner Assessment Example

For the learning objective: Instructional design students will be able to write learning objectives with the aid of this document 100% of the time.

The assessment might be to give learners a goal and task analysis and ask them to write learning objectives that align with that analysis. This could be done as a test or as an assignment. Either way, the instructor is able to see the learner demonstrate their ability to write learning objectives.

Writing Clear Instructions

Regardless of the type of assessment you are creating, one of the most challenging part of assessment design is writing clear instructions. It is a good idea to have someone read your instructions and provide you with feedback before you provide them to students.

The best place to learn how to write clear instructions is by looking at the basics of technical writing, which is all about writing instructions.

General Writing Tips

Writing clear instructions is difficult. Here is a humorous example of writing clear instructions:

- Avoid jargon and complex language. Keep your sentences short and clear.
- Use bulleted lists for things that don't need to be done in a specific order.
- Use numbered lists for things that must be done in a specific order.
- Start lists with verbs and use parallel structures (notice how each item in this list starts with a verb).

What is meant but writing clearly and concisely:

Assessment Writing Recipe

1. State the purpose of the assessment. You can use the learning objective for this statement. For example, "The purpose of this assignment is to validate that you know how to write learning objectives that are SMART".
2. Provide any background information and resources needed for students to be successful.
3. Describe what you want the learner to do.
4. Describe how the learner will be graded.
5. Ask someone else to proofread your instructions and ensure they understand them correctly.

Rubrics

Rubrics are tools for grading authentic assessments. They are useful when you have multiple people grading to help ensure consistency. They are also useful to help set expectations for students. However, rubrics can also stifle student creativity, as they will do exactly what they need to do in order to achieve the highest level of the rubric and often nothing more.

There are many online tools to help your create rubrics.

Useful Resources

- Brigham Young University (n.d.). [14 Rules for writing multiple-choice questions](https://testing.byu.edu/handbooks/14%20Rules%20for%20Writing%20Multiple-Choice%20Questions.pdf). <https://testing.byu.edu/handbooks/14%20Rules%20for%20Writing%20Multiple-Choice%20Questions.pdf>
- Dyer, K. (2021, August 24). [75 digital tools and apps teachers can use to support formative assessment in the classroom](https://www.nwea.org/blog/2021/75-digital-tools-apps-teachers-use-to-support-classroom-formative-assessment/). <https://www.nwea.org/blog/2021/75-digital-tools-apps-teachers-use-to-support-classroom-formative-assessment/>



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