



A COURSE DESIGN PRIMER

A learning management system (LMS) is a very expensive, enterprise-level investment. The set-up and ongoing maintenance of the platform costs a great deal of time and money, and organizations should want to squeeze every drop of value from it. Creating effective (not merely attractive) content is the only way to ensure that the LMS will generate a worthwhile return on investment (ROI). If your learners' skills and habits don't change as a result of the time they spend on your platform, then there is little point in them being there. The principles and vocabulary below should simplify and clarify your conversations with course designers and LMS administrators, so you can assist them in creating truly effective courses.



TERMINAL LEARNING OBJECTIVE

You start by determining what a student should be able to do at the end of the course that they could not do at the beginning of the course. The answer to that lets you create your terminal learning objective (TLO). You must clearly state the condition(s) under which the assessment takes place, along with any equipment, notes, or aids the learner is permitted during the assessment. The TLO must also state a task or performance, and a standard. Here is an example of an unambiguous TLO. **“When provided with dirty dishes, a sink, running water, and cleaning material, the user will be able to remove all food particles from plates, cups, and silverware.”** Below you will see the three components of that TLO.



The condition

When provided with dirty dishes, a sink, running water, and cleaning material



The task or performance:

Remove all food particles from plates, cups, and silverware



The standard:

ALL food particles must be removed (not just some or most).



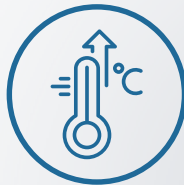
ENABLING LEARNING OBJECTIVES

Next, you need to identify the enabling learning objectives, (ELOs) which are the things the learner needs to know or do in order to get to the terminal learning objective. Here is a [very simple introduction](#) to TLOs and ELOs. I like to think of ELOs as stepping stones across a river. To get to the opposite shore (the TLO), the learner must carefully step on each stone to cross the water, and movement from one stone to another is required in order to complete the journey. Skipping one is not possible. Using our dishwashing TLO from above, I have created a series of supporting ELOs. Notice that it would be difficult, if not impossible, to complete the final assessment if you skip one of the steps below. Those steps (ELOs) are:

The learner will be able to add an appropriate amount of soap to the sink.



The learner will be able to turn on the faucet and adjust the water temperature.



The learner will be able to correctly scour dishes with the dish brush.



The learner will be able to rinse dishes thoroughly.



The learner will be able to organize dishes in the drainboard to effectively maximize the available space.

ASSESSMENTS

Once you have your course objectives, you can design your assessments. You need at least two and perhaps three assessments. In reverse order they are the **summative**, **interim**, and **formative assessments**.

The **summative assessment** is mandatory and should be focused on the terminal learning objective. In our example above, the summative assessment is a demonstration of dishwashing, but not all assessments need to be physical actions. The learner could write an essay or blog post, submit a video or audio recording of themselves speaking (in the case of a foreign language course), or provide a portfolio (in the case of some kind of art course). Your creativity is the only limit to the type of summative assessment you can require. Ask yourself this question: “In a court of law, if my learners were accused of gaining knowledge or skills from my course, would there be enough evidence to convict them?”

The **interim assessment(s)** are mandatory and should be focused on the enabling learning objective(s). The theory of these assessments is the same as that above, but the assessments themselves are focused on each of those stones crossing the river. In our dishwashing example, the first assessment is that the learner can, in fact, turn on the water and adjust the temperature. The second assessment is that they can add an appropriate amount of soap, and so on. Each ELO must have an assessment; no ELO can exist without one.

The **formative assessment** is primarily used for intermediate and advanced level courses and is seldom required for very basic courses like our dishwashing example above. The purpose of the formative assessment is to expose the students' prior knowledge of the course material. If it is sufficient, they can begin the course. If it is insufficient, remedial material should be designed to bring them up to a level that will allow them to begin the course material. To create this assessment, the first thing that you need to do is identify the prior knowledge that you expect the students to have. For example, in a trigonometry course, basic algebra skills are a prerequisite. Any person without these skills will be unable to navigate the course material and, therefore, algebraic computation should be part of the formative assessment. There are two types of prior knowledge- declarative and procedural- that can be tested in the formative assessment. Starting your assessment questions with one of the four words below will help you determine what knowledge your learners already possess.



Declarative knowledge
answers the questions
what and why.



Procedural knowledge
answers the questions
how and when.

COURSE MATERIAL

Once you have created the assessments, you can begin to construct the course material to bridge the gap between where the students are and where they need to be at the end of the course. Course designers must explicitly link new knowledge or material to knowledge from previous courses or to prior knowledge from earlier in this course or to other types of prior knowledge. The knowledge or skills you teach should allow the learners to complete one of your assessments. As a general rule, do not teach knowledge which is not going to be assessed. To do so makes your courses bloated and confusing. Organizing knowledge correctly and limiting it to just what is needed for assessments is the key to information retention! This cannot be overstated.



MAKE YOUR COURSE STICKY

No matter how good it is, learners will forget most of your material as soon as they leave your course. This is well-documented in the [Ebbinghaus Forgetting Curve](#). Since the goal of our training is to effect a change in our learners, we need to ensure that the course material is internalized- that it becomes part of the architecture of their personality. The only way to do that is to require that the learner revisit the material at prescribed intervals over the thirty days following the course completion, starting within the first 24 hours. This is called **spaced learning**, **spaced repetition**, or **distributive practice**. A good way to accomplish this is to have your course send out automatic reminders to bring users back in and complete short refresher activities or assessments. Reviewing the course material periodically is essential to prevent their memories from fading.



KEEP IN MIND PRINCIPLES OF ANDRAGOGY

When designing course material, consider Malcolm Knowles' six principles of motivation related to adult learning.

**Need to Know:**

To be fully motivated, adults need to know why they need to learn something and this needs to be explicitly stated.

**Intrinsic Motivation:**

Forget points, badges, and leaderboards. Adults respond better to internal rather than external motivation.

**Readiness:**

Adults are most interested in subjects with immediate relevance to their work or personal lives.

**Self-Concept:**

Adults need involvement in planning and evaluating their own instruction. They need decision-making capabilities regarding their education. This freedom should not be total because learners don't know what they need to learn. Instead, they need a framework to guide them. Often it's enough to allow them to choose in which order certain aspects of training take place.

**Orientation:**

Adult learning is problem-centric rather than content oriented. It is the question, not the answer, that piques curiosity and interest. Problem-solving brings pleasure in the form of a dopamine hit (as long as we succeed), but the pleasure comes from the process of solving, not the achievement of the solution. The content of the problem is key, but it is not enough to keep attention. The difficulty of the problem is also important; too easy or too hard = no fun for the learner.

**Foundation:**

The basis for learning is trial and error, but students don't gain the majority of their knowledge from the experience itself. They learn best by deliberately reflecting on the experience in a formal education or debriefing environment. The reflection can be oral- by recording their reflection or conversing with an instructor or fellow student- or it can be written in the form of a journal, forum post, essay, or blog. This concept is known as the Experiential Learning Cycle, and an introduction to it [can be read here](#).



CONCLUSION

In conclusion, there is a lot more to effective course design than just finding someone who has skill with Articulate Storyline or Adobe Captivate and asking them to make your content sexy. Good courses are built on a solid foundation of well-thought-out and well-articulated enabling and terminal learning objectives supported by comprehensive assessments. Only when all of the prep work above has been completed can you then begin crafting course material for your learners.

If you need help creating high quality courses for your learners, let our professional team assist you. Get started by [scheduling a call with us](#) to discuss your needs. From there we will craft an andragogically sound plan to help you accomplish your goals and then create the course within your Moodle LMS. But don't wait. The sooner you call us, the sooner we can help you architect a positive change in your learners. We are looking forward to helping you!



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