Episode 1: Overarching Big Ideas to Learning Outcomes

Hi there. Thanks for tuning into the first of four episodes on the Nuts and Bolts of Course Design. In today’s episode, we will uncover the planning stage of course design: how you develop overarching big ideas the course will cover to identifying tangible learning outcomes that identify the student’s success and milestones. By the end of this series, you should have some useful, takeaway skills to help you jumpstart your course development process.

Before we go into more detail, I want to introduce myself. My name is Keith Anderson, and I’m an instructional designer at the University of San Francisco. I’ve been designing courses for faculty for over 8 years, and have about 15 years experience teaching undergraduate and graduate courses at several universities in San Francisco and Hawaii. In these episodes, you’ll be hearing predominantly from me, but our team includes several other instructional designers who work with faculty to design courses. If you are interested in working with us, please check out our website, which will be included in the episode’s notes.

OK, let’s begin.

Now, to get the record straight, When I talk about course design, I am referring to what you develop before you are in a class session with students. This process starts sometimes a few months before the first class.

Before we talk about recommended method of designing courses, I want to look at the auto-pilot method that many of us have relied on for countless years.

The auto-pilot method of designing courses that many of us have fallen into at one time or another consists of selecting a textbook or other reading material, searching for places that we can reinforce the textbook through lectures, homework and/or projects, and finally come up with some way to test whether students are actually learning the material. This method promotes the idea that student success is based on only absorbing what the teacher or textbook is telling you to memorize.

As a course designer, we want to move away from the idea that teaching is about just covering the course content and move towards developing opportunities for students to engage in authentic practice with feedback. To start this process, let’s start from the beginning of the course design process by identifying what we want students to be able to do by the end of the course.
Strong courses ensure students are transformed by the end of the course. Students should be able to accomplish something new within a specific competency. The first step to do this is by identifying the big ideas or themes for your course. This is no easy task, however. Brainstorming ideas and discussing with colleagues your thoughts usually helps this process along.

These big ideas are important because they help students shape how they think about the subject you’re teaching. They illuminate student understandings, which bridge abstract concepts to the concrete learning outcomes that explain the manner in which the students use what they’ve learned.

Let’s now look in depth into two particular terms that I just mentioned: big ideas and learning outcomes.

Big ideas are the concepts, themes or processes inherent within each subject. For example, a big idea from a freshman composition course is “thinking independently and expressing one’s ideas in a thoughtful manner.” This idea can also be expressed in a question format like “How can you think independently and express these ideas in a thoughtful manner?”

After defining your course’s big ideas, you are ready to identify the Knowledge, Skills or Attitudes (also called KSAs) that you want students to gain by the end of the course. This refers to the abilities and actions that are intertwined with learning the big idea. This form of learning might or might not be visible or measureable, but nevertheless express what you would like the students to have grasped as a result of the course.

To identify the KSAs, start with answering these three questions

- What content must the students be knowledgeable of by the end of the course?
- How can students demonstrate competency of this content?
- What actions lead to proficiency with content in real life?

These statements are important for you to clarify early on so that you can be sure your assessments match the content you want students to grasp.

Lastly, the third term, learning outcomes are statements that provide measurable evidence of the understanding you want students to have by the end of the course. These statements help you evaluate the quality of students’ knowledge, skills and attitudes. Each of these statements will usually express various levels of mastery: from memorizing and organizing all the way to creating and evaluating.
The typical format for a learning objective is “At the end of the course, students will be able to + insert action verb + insert knowledge, skills or attitude the student is expect to have developed."

For example, “At the end of this course, students will be able to express their opinion on a controversial issue in written form”

Learning outcomes are necessary so that you can evaluate students’ success and measure competency of the course content.

All three of these can be expressed effectively within a course map, which could be included within the syllabus. This provides students a solid overview of the course content how you will be guiding them through the material. See the pdf with examples of course maps.

In the next episode, we’ll explore how to design experiences for students’ to demonstrate their learning. See you soon!

**Episode 2: How Students Demonstrate their Learning**

Thanks for coming back to the 2nd episode of the Nuts and Bolts of Course Design! In this episode, we will discuss designing experiences for students to demonstrate their learning.

As instructors, we want to ask ourselves, how do we truly know if my students are actually learning what we want them to?

Can we interpret their facial reactions to see if the content is sticking? This is frequently done, believe it or not, but it’s not very reliable.

Can we ask them if they are learning what I want them to? Yes, you can, and it’s a good idea to check in with them, but it’s not always enough.

Today we are going to talk about 2 types of assessment: formative assessment and summative assessment.

Formative assessment is identified by assessments that measure students during the learning process usually determining whether they are grasping concepts from your instruction.

Summative assessment is designed to evaluate students’ learning against a predetermined standard at the end of the learning process. This includes the entire course, but also other milestones from within the course.
Your course must include both of these types of assessments, and multiple versions of them. For formative assessment, you might ask the students to describe the main concepts from an article they read for homework, or ask students to think about a particular topic, share their thoughts with a classmate and explain their discussion to the class. These class activities can present a glimpse into the students’ thought process.

Summative assessment can include traditional tests, essays, or projects that are graded. These assessments are formal and allow you to evaluate the students’ learning. Because summative assessments are higher stakes than formative ones, it is better to give students options how they demonstrate what they have learned. For example, giving students the option to write an essay, record a podcast, or give a presentation allow the student to choose their preferred communication model, which alleviates stress associated with summative assessments and promotes students’ ownership of their own learning.

When you plan out assessments, it’s recommended to include various levels of thinking in your assignments. For example, asking students to summarize an article requires a different level of thinking than evaluating the effectiveness of an essay. Bloom’s taxonomy is frequently regarded as one of the gold standards on levels of thinking in education.

To maximize the impact of formative feedback, incorporate frequent low-stakes assessments throughout the semester to provide practice and feedback for students. This creates more opportunities to fail early and frequently so at the end they can ace the test. These assessments also provide you feedback to reflect on and modify your teaching.

In the next episode, we will be getting down to the nitty-gritty and looking at how you can design specific learning activities. Bye for now!

**Episode 3: Building Learning Activities that Promote Student Engagement**

Welcome back to episode 3 of the Nuts and Bolts of Course Design podcast. In today’s episode, we’ll explore how you can develop learning activities to assist students in meeting the learning outcomes. These ideas are called instructional strategies.

There are many instructional strategies out there, varying in length from a few minutes to the entire semester. We’re going to further explore a few that USF faculty keep talking about. The
three instructional strategies we are going to look at are flipped learning, inquiry-based learning and team-based learning.

To start with, let’s explore flipped learning.

The reason why this is called the flipped learning strategy is because this strategy inverts the typical cycle of content acquisition and application so that students gain the content independently before class through homework and during class the instructor guides students to actively apply and build upon that knowledge. This method is beneficial for instructors because it allows you to change how you teach, usually going from a lecture-based method in which students are mostly listening and occasionally directing questions to you, to a guidance role where students ask each other questions and the instructor provides support when needed.

To do this, students are assigned to watch mini-lectures prepared by the instructor. Either audio or video recording with podcasts, screencasts, or powerpoint presentations. The students then complete some form of formative assessment like using a graphic organizer to take notes. During class, students come prepared having already watched the lectures. From this, you have a quick review of the main concepts to help you assess students strengths and weaknesses with the content. Now what do you do with your class time? You have many options at this point. You could have students further expand on their understanding of the content and create a case study that explores the concepts from the lecture. Or students could complete an independent class assignment that requires them to use the content that they learned. The sky’s the limit with different activities that students can do to expand their knowledge.

The next strategy we are going to cover is called inquiry-based learning. In this strategy, the class is focused on questioning, exploring and discovering instead of memorizing and drilling knowledge. The students learn through generating questions and exploring concepts from the course curriculum with the instructor’s guidance. This method of learning leverages students personal interests and background knowledge through allowing them to choose their own questions to solve. Because this method emphasizes student autonomy, many faculty start the semester by creating learning contracts to set expectations early on, and give students guidance in identifying the quality of inquiry-based questions.

During the class session, the students spend their time on activities like problem-based learning, and discussing how to evaluate information they might need to answer their own questions. In addition to your course learning objectives, this model helps students take ownership of their own learning, find information that they need and analyze information to support their own points.
Similar to the role of the instructor in a flipped classroom, the instructor’s role changes. In this model, instructors work more as co-creators of knowledge.

And the last strategy we are going to discuss is called team-based learning. In team-based learning, students are members of a structured, permanent small-group. The students have been grouped together strategically based on their background skills. Usually the instructor sequences each class session using the readiness-assurance process to ensure that all group members are accountable individually and to their group. The process starts with each student preparing for class usually reading articles, watching video clips or listening to podcasts. During class, various activities will take place to ensure that students not only did the homework but also have a firm grasp on what they completed for homework.

Class starts with an individual readiness assurance test, which usually is a short, multiple-choice quiz based on the homework they prepared for. These quiz grades are tallied into their individual grade for the project or class.

In the next activity, students get into their groups and complete the same quiz again together. They need to collectively decide on the correct answers and reach a consensus on a single answer for each test item. After each group submits their quiz, the teacher assesses the quizzes to see what gaps lie in their knowledge. The instructor gives a mini, impromptu lecture based on the class’s needs.

Once this process is completed, students have a firm understanding of the fundamentals and are then ready to further engage with the content. The instructor gives them problems to solve, cases to evaluate, and scenarios to challenge their understanding of the content.

For example, the instructor could give each team a problem-based scenario that relates to the course material and ask students to determine what should happen next. After they discuss, students can present their scenario and their conclusion. This can also bring up a class discussion around the concepts covered.

The last thing students do in class is evaluate their team member’s performance. This is important for you to have so that you have way to evaluate the students’ group work. You can give students simple yes or no questions for this, or even a likert scale would work. This should be relatively simple to complete since you only need a snapshot of what students were thinking during the group work.

We’ve just explored three strategies, flipped, team-based, and inquiry-based learning that can help you promote student-centered learning, but don’t let these ideas restrict the possibilities of
what can be done. There are many strategies and blends of strategies that can work well depending on your course content.

In the next and last podcast episode, we will explore the three functions of a syllabus: inviting students to the class, learning the course outcomes and map out the type of interaction and participation that they should expect. See you soon!

**Episode 4: Designing an Effective Syllabus**

Welcome back to our last podcast episode in the Nuts and Bolts of Course Design series. Today, we will look at creating an effective syllabus and how to use this document as a guiding reference throughout your course.

The syllabus serves three purposes: an invitation, a contract, and lastly it’s a reference guide.

It’s an invitation to your students to participate in the course through explaining its rationale. As a contract between you and the students, it states expectations for assignments, assessments, grading and student responsibilities. As a reference, it guides that students can refer to regarding logistical information including course schedule, office hours, required materials and services available to them.

You have likely included your course learning outcomes and considered what you want students be able to do as a result of this course. Next, determine how you will assess students learning and achievement, and what tools you’ll use to evaluate them. You’ll need to determine what instructional strategy(ies) you are planning to use throughout the course.

You will have some sequence of activities, like a week-by-week schedule. This doesn’t need to be very detailed but this sequence will serve the students as a map of what will be covered. And the last step is to identify what recourses on campus can help students with academic help. This might include the learning and writing center, CASA advisors and other support resources that are specific for your course, department and school.

For USF faculty, we offer a syllabus template that we highly recommend that you use. This will help you jumpstart your syllabus writing process, and provide you guidance with how to structure the content.

Now after you have written the first draft of your syllabus, think about what could go wrong within your course, and then analyze and assess this first draft of the course. Once you have a near final draft of your syllabus, plan out how you will evaluate the course and your own teaching performance. Be able to answer “how will you know how the course is going? And then
how it went? This should be based only on your assumptions and interpretations. You should have some formal assessments for the course and your teaching throughout the semester.

Once you have finished the syllabus, you might want to create a corresponding quiz to help guide your students with identifying the most important concepts. Lastly, your syllabus should be a living document; if something isn't working as you have planned, feel free to make changes as needed.

If you would like to meet with an instructional designer at USF, please reach out to us via our website at [https://myusf.usfca.edu/its/ets](https://myusf.usfca.edu/its/ets). We offer 1-on-1 consultations to help you design parts of your course. See you soon!