

In the Classroom 146

Using ADDIE to Design Your Courses

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Stan Skrabut: Well, thanks ever so much for taking time to listen to this podcast. It certainly means a lot. I know you could be doing other things, perhaps you are, and you're still hanging out with me and I really do appreciate it. Across these past 145 episodes, I have talked about various ways of designing courses or strategies to improve your instruction. I believe it is essential to use instructional design to develop your course. It will lead to a quality course.

One of the most talked about design methods is ADDIE. It is a five-step method that Florida State University created, in order to support the development of military training. It is one of many strategies that can be adapted to the situation and a number of variations have been built on the ADDIE model. I've talked about Sam before, the success of approximation method and one of the parts that I've referenced quite often, that is really a part of ADDIE, and that is in the design aspect, and that is backward design. As I break down the five steps of ADDIE, I'm going to focus on how it can be used in the classroom.

First of all, what is ADDIE? ADDIE is five steps and they are analysis, design, development, implementation and evaluation. Why should you use ADDIE? Matter of fact, ADDIE or SAM or Backward Design, if you're using them, that means you are taking a deliberate approach to designing a course. You're ensuring that everything has a purpose and that they're interconnected and basically, it's a tight design. Through analysis, you're determining your goals, objectives and outcomes for the course, and then in design and development, you are putting together the assessments, the activities and the content that will help your students get to the next level. After you've built everything, then you're going to put it into practice by teaching your courses. Then along the way, you're going to evaluate what you're doing, the success of your activities and content and start the cycle all over again.

It is about having a system. It is about intentionality. The cool thing about ADDIE is that it's applicable regardless of the course modality. Let's take a look at each of these elements. First of all, you have analysis. During the analysis phase, you are determining what you will be teaching, what gaps are you going to fill? This means you need to know who your learners are, what they already know about your topic. In a higher ed model, where a course is part of a curriculum, this may have been done ahead of time to determine what the sequence of courses are, but there was some analysis done.

What should a student know at the end of that particular course? During this particular step, you're going to identify your course goals and objectives. Ideally, you're using Bloom's taxonomy to develop these strong objectives, and if you want to

know more about Bloom's taxonomy, check out Episode ITC 82, where I talk about that. You're also going to determine technologies that are available to you. These technologies can be opportunities or constraints. Maybe you have the technology, maybe you don't. That'll make a difference in your design. Additionally, you have to ask yourself, are you going to be using a textbook for your course, and how does that textbook play into the course?

At the end of the analysis step, you will know what to include in your course and what you're going to be excluding. The idea is you want to make sure that you're preventing the duplication of content hot in other courses. The content should really be standalone type material. Everything builds upon it on each other. After analysis, you have design. Using your course objectives, you begin to lay out the sequence of your course. Very often, objectives build upon each other, or they're going to scaffold and you want to know what the knowledge, skills and attitudes that you're trying to develop.

When developing a course, I really recommend that you use a spreadsheet to design your course. In the first column, you're going to label this as the weaker module that you're basically adding content to. The second column, this is where you're going to put your objectives. You're going to very clearly write what that objective is and each cell is a separate objective. The third column is where you list how you will assess that particular objective. What is your plan for assessment? The fourth column, this is where you put your activities that students will use to practice for the assessment. Things that you want them to do, you want them to build these skills. The fifth column, that's where you're going to identify what content you are going to use.

I recommend that you have a dual track. This is very much in line with universal design for learning, and the idea of a dual track is you have one that's text based, but you also have another one that's multimedia. A student can pick and choose either one or both, one or the other, what they want to do. You have columns that'll identify this. You may even have two columns, one to identify text, one to identify the multimedia.

The six column is where you identify the technology or other needs that you have for that particular objective. What do you still need in order to make this a reality? When you're filling all this information, try to use appropriate naming conventions that are consistent with your universal design for learning, that you don't just simply want to have a short text, something that's very cryptic that you don't remember what it is or students won't be able to identify, just be as clear as possible.

When working in the design phase, you are really going to be doing Backward Design when you do this. You begin with the objectives, next you design the assessments or way to determine if the learner has met the objectives. After you design the assessments, then you're going to create your activities and instructional materials, so you can make sure that you're meeting those objectives. If everything is done correctly, learners should pass the assessment, thus demonstrating that they have met your objective. At the end of the design phase, you should have a nice spreadsheet that shows the sequencing of your content and your assessments. Just

all the material that you're going to have for your course. This is going to make it easy to then build your course, which leads us into the development phase.

The development step is where you actually build your course. This would mean building out your course shell in your learning management system, it would also include developing your lesson plans. Episode ITC 110, I talked about developing solid lesson plans. Definitely, go check that out. It may also include creating videos, audio files, images, graphics, documents, pages on your LMS, PowerPoint presentations handouts, figuring out your course colors and fonts. Just all kinds of things, but it's also important that you don't have to design from scratch, because that can be very overwhelming. If possible, find some open education resources and modify them for your needs. You can also hunt out YouTube videos that suit your needs. If you're part of a department, consider working as part of a team and share the resources that you develop among other members of the team.

Ideally, in the design or the development phase, you're going to test the materials that you create. If you're building a quiz and you're using a learning management system, test that quiz from a student's perspective. One, make sure they can access it. Two, make sure that they can do all the questions and everything just works the way that you want to, that the feed is going to come out the way you want to. Do this also for your assignments, make sure that everything goes into the grade book and that the grade book is working correctly.

Basically, a great part of your testing is actually going to be in your class, but if you can attend to some of this stuff ahead of time, it'll make things a lot smoother for your class. It becomes very frustrating for students, if you tell them that there's a quiz and they can't access it, because you didn't test it ahead of time.

Once you've put your content into your LMS, you've laid it all out, now it's time to go to the implementation phase. The implementation phase is where you actually just teach your class. While you're doing this, keep a record of what's working and what needs to improve for each element of your design. As you're going through your lesson plan, take time after the lesson just to jot down notes to yourself that, "Hey, this worked really well, this needs to be tweaked." Just keep an eye on those things.

In Episode ITC 87, I talked about the idea of pinch points. Pinch points or areas in your course where students are struggling. They may have questions. they come up to you after class, start asking questions or when they take an assessment, they're commonly getting things wrong. These are points where student you're struggling. So it's important to also identify these areas, so you can go and improve your class after the fact.

Finally, we have evaluation. A lot is happening in the evaluation step. Normally, most like an undergraduate class, you'd probably have a summative assignment to assess what students have learned. Basically, you want to know how well they formed. This would be basically a level two assessment in Kirkpatrick's levels of evaluation. Another evaluation that you're going to do in your course is probably a course evaluation, which will inform you of what the students thought about your course, and any recommendations for improvement. Basically how satisfied with the course.

This would be a level one assessment for Kirkpatrick's levels of evaluation. That'll give you ideas, what you need to do in order to improve the course.

Then you start the whole process over again. You go back to analysis, take what you've learned in order to go back and make some redesign adjustments and develop new content and so forth. All the way, work your way all the way back down to evaluation and you'll just keep running through this cycle over and over and over again. If you do that, you're going to bring your courses up to the next level.

ADDIE, which is analysis, design, development, implementation and evaluation, really important instructional design methodology that will help you bring your courses to the next level, so I encourage that you check that out. Speaking of checking things out, here's a quick plug for my book.