Ed Tech 9: 2017 Fundamentals of Course Design May Term

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All questions are from the course syllabus (Wilson, 2017).

"Effective Course Design" Video

"1. For the video on "Course Design", please summarize the main points that were made."

Kassia Wosick-Correa (2008) begins her "Effective Course Design" video by stating that a course designer first needs to decide what the final "outcome" for the course will be. The designer then needs to determine what needs to be done so that the students achieve the desired outcome. Wosick-Correa divides the steps involved with course design into "three main components: learning objectives, course assignments, and assessments." Later in the video, she changes "course assignments" to "course activities."

The learning objectives include the information that the designer wants the students to learn and the skills that students should be able to perform by the end of the course. The students are the focus of the objective. The objective contains an action word such as students will write, create, evaluate, *et cetera*. The objective should include clear criteria for completion of the objective. A detailed learning objective makes designing the activities and assessments much easier.

The specific activities should be designed to help students to learn new information and to practice new skills, which will help them to achieve the learning objectives. Course activities should be active, not passive, to better facilitate learning. Students need to practice the skills involved to be able to improve their writing. Students are better able to "retain the skills and knowledge they learn actively." A lecture can be one component of the course, but active participation should also be included.

Assessments should enable students to demonstrate that they comprehend and can apply their new knowledge and skills. A combination of assessment tools can be used throughout the

course to assess student progress. This may include exams, oral reports, written work, and other assessments as needed to determine that students are progressing toward successfully completing the course's learning objectives.

All of these course components need to work together to enable students to achieve success. Courses should be learner centered. The focus of all aspects of course design is on what the students will be doing instead of what the teacher will be teaching. This approach learner-centered approach to course design assures that the students are actually learning the material in the course.

"Course Design on a Shoestring Budget" Video

"2. For the video set "Course Design on a Shoestring Budget", please summarize the main points that were made, grouped by main topic. [only one answer for each video]"

Designing Your Course to Achieve Alignment (video 1)

There are four parts to designing instruction: learning objectives, teaching strategies, learning activities, and assessments. These four items need to be aligned with each other so that they work together to create a unified course. Start with a learning objective that clearly states what you want students to learn. The teaching strategies, activities and assessments need to directly relate to the learning objective for the course design to be "well aligned." The specific skill students are to learn should be mentioned in all four areas. (Johns Hopkins University, 2014a)

Introducing the Course Design Matrix (video 2)

The CDM is designed to assist instructors to align the course components to create a well aligned course. The CDM consists of basic course information, the course description, course

learning objectives, and course design. The course design area includes a variety of specific headings for each module/lesson and projects that may span more than one module (module number, module title, module learning objectives, teaching strategies, learning activities and assessments, and module resources. Below that is a section for projects that span more than one module. The Course Design Matrix can be downloaded from https://ep.jhu.edu/cdm by copying and pasting the link into your browser (clicking may bring up gibberish). (Johns Hopkins University, 2014b)

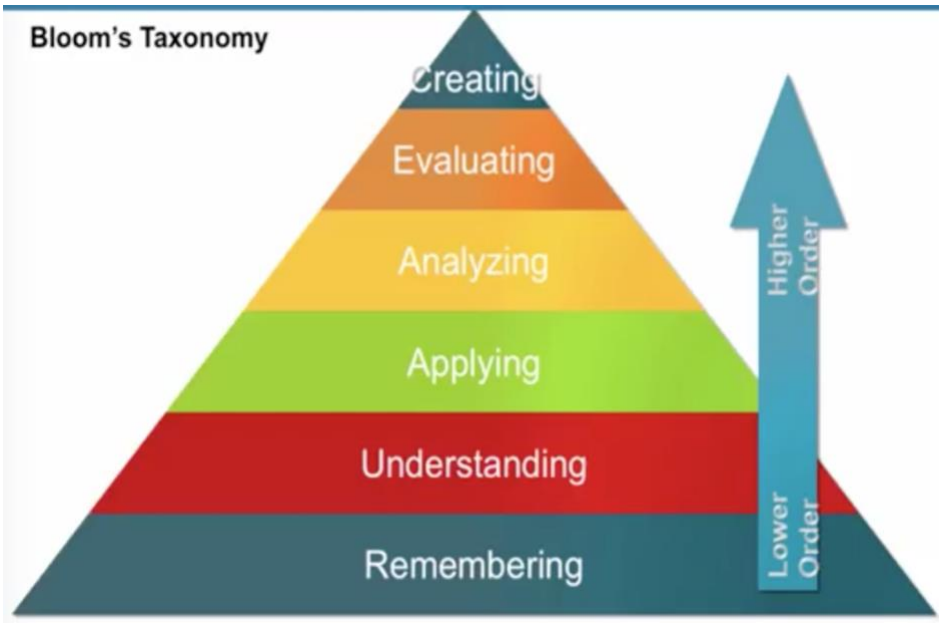
Fundamentals of Course Design (video 3.1)

This video differentiates between course objectives and learning objectives. Both course objectives and learning objectives are observable skills that the students will be able to complete. Course objectives are general statements that apply to the entire course. Learning objectives are specific statements of what the students will do to demonstrate mastery of the material in each unit. Mastery of specific learning objectives will lead to mastery of the course objective. Learning objectives have the student as the subject and use action verbs drawn from Bloom's Taxonomy followed by a clear statement that describes what the action entails. Learning objectives define what the students will be able to do at the end of each unit if instruction. Clear course and learning objectives help the instructor to develop a meaningful course and help the students to understand what is expected of them. (Johns Hopkins University, 2014c)

How to Write Learning Objectives Using Bloom's Taxonomy (video 3.2)

Blooms Taxonomy is described in this video (Johns Hopkins University, 2014d) as is a series of six levels of cognitive domains (thinking skills) that start with basic Remembering and proceed to the highest level of Creating. The middle levels, in order from lower cognitive processes to higher cognitive processes are Understanding, Applying, Analyzing, and

Evaluating. All of these levels have action verbs associates with them so that the focus is on what students are doing. As you move up the pyramid, students should successfully complete each level before moving to the next level. The diagram below is a screen shot from the video.



Couse designers need to know both the "complexity" of the course material to be taught and the "learning level of the students" so that they can figure out where along this taxonomy the majority of the instructional material needs to be aligned. All courses can have objectives from each of the six domains, but the focus will change depending on whether the course is on the introductory or advanced level. Johns Hopkins University created a "Blooms Wheel" that can be downloaded from https://ep.jhu.edu/blooms.

The video mentions several steps for writing learning objectives. Learning objectives begin with a "stem sentence" that could mention an idea such as when the objective is to be met. The next step is to write the learning outcome. Step three is the action verb from Blooms Taxonomy; these can be from the Blooms Wheel or other verbs that you find appropriate. The objective verb must be observable and measurable. The final step is to write out the objective using the information that you have gathered.

One example of an objective is, “By the end of the month, the student will compare and contrast (analyzing level) two different fictional stories we have read in class in a written or verbal report.” This objective would clearly tell me what the month’s goal is and lets the students know what they are working toward. It also gives the students alternative means of demonstrating their knowledge, which is important in my school.

Meaningful Learning Activities

Learning activities provide opportunities for students to learn and practice concepts and skills. Learning activities are meaningful when they help the students to reach the course and unit (or module) objectives by actively engaging students in the learning process. Meaningful learning activities directly relate to the stated objectives. Eight aspects of meaningful described in the video are: authentic, challenging, rigorous, coherent, engaging, responsive, student-centered, and valid. Students are active participants in their education when they participate in meaningful learning activities. (Johns Hopkins University, 2014e)

Types of Assessment

Assessments can prove (or disprove) that students are learning the material that will lead the students to obtaining the stated objectives. Assessments also provide information on whether or not the instruction was effective. Effective assessments are appropriate to the learners and to the concepts and skills being taught. Assessments also need to be matched to the teacher’s skills; a teacher cannot effectively use an assessment of which he or she has no prior knowledge. The assessment also must be appropriate for the delivery system, such as online or face-to-face. Formative assessments provide the students and the instructor information about progress and areas that need additional focus. Summative assessments are used at the end of a course to determine how much of the course objective was met, assign a grade, and/or “decide if students

have achieved mastery." (Johns Hopkins University, 2014f)

"Virtual Classroom Design" Video

"3. For the Claudia Dornbusch video, please highlight her main points."

Claudia Dornbusch's video (2010) focuses on synchronous e-learning courses where the instructor and the learners are all online at the same time. Synchronous e-learning has some challenges that face-to-face learning does not have. For instance, the instructor cannot simply look at the students to determine if they are "engaged, paying attention, and actually retaining the materials that we are covering." When participants engage in a purposeful interactive activity every three to five minutes, they are more likely to remain involved in the lesson. These activities must support the "learning objectives" and "learner attention."

There are a variety of tools course designers can use to encourage engagement and assist students to obtain the learning objectives. Instructors can use relevant and appropriate visuals that relate directly to the leaning objectives. Whiteboards and their annotation tools (e.g., circling key concepts) can allow students to collaborate with each other and with the trainer. Participants and the trainer can use text chatting to communicate with each other, such as asking open-ended questions, brainstorming, and requesting assistance. Breakout rooms are used for small group activities. Polls (or surveys) let the trainer receive quick feedback about an aspect of the lesson. Student feedback can help trainers to determine if students are remaining involved and working toward the objectives. Audio discussion enhances collaboration and engagement. Trainers can use the learning platform's icons to increase participation and receive immediate feedback from the students. "Frequent and effective use of" a variety leaning platform's functions is important in providing meaningful synchronous e-learning experiences.

Course Design Video Comparison

"4. Now, having summarized the three videos in Questions 1-3 above, please discuss and compare the suggestions given, including in your answer:

(a) Which video(s) were most instructive to you and why (you can select one or more)?

(b) Which was the most helpful to you and why?"

General Discussion

I found all three videos to be informative and well designed. The first video, "Effective Course Design" (Wosick-Correa, 2008), is a good basic overview of the thought process that goes into designing a meaningful course. This would be a good video for someone who is new to course design or struggles with building cohesive courses. "Course Design on a Shoestring Budget" (JHU Media, 2014a-f) gives more specific information but might be overwhelming as a first video series for a future course designer who has just begun to study the topic and has no previous experience. The final video, "Virtual Course Design" (Dornbusch, 2010), gives course designers a list of tools that can be used when designing synchronistic online courses. I have used these tools as a participant, but it was nice to have them listed for future reference. All of these videos interested me even when they were reviewing material I had studied previously.

The one notable absence is a video about designing an asynchronistic online course. In fact, I wish I had done more research into asynchronistic instruction before my first attempt at online course design last autumn. At that time, I focused more on learning to use the tools than on content. I spent many hours teaching myself how to use my chosen platform; making everything look cohesive (developing a consistent font and color scheme, using headings that looked similar whenever the software let me, etc.); designing chats that provided potential interaction between students and between the students and myself; and creating quizzes that

worked properly, had a variety of question types, and could be used by students to gauge their progress. Everything that did not work (even after multiple tech support tickets) was dropped from the list of student links so that no one would accidentally click on an invalid link. I spent so much time focusing on the technical aspect of building that course that I did not spend as much time as I could have on providing rich content in an asynchronistic platform. Even without a video that specifically addresses asynchronistic teaching, I think these videos will help me in future course design activities.

The video that I found to be both the most instructive and the most helpful was "How to Write Learning Objectives Using Bloom's Taxonomy" (JHU Media, 2014d). My school uses Norman Webb's Depth of Knowledge levels, but I studied Bloom's Taxonomy in many of my education courses. I took copious notes on this video because I am out of practice with integrating Bloom's Taxonomy into my lessons. Looking back at my first attempt in creating an online course, I think that I might have been able to provide more experiences that incorporated higher order thinking skills. I took more notes on this video that any of the other in that series because I found it to be a video with many details that I want to remember and be able to easily review in the future.

E-Learning Methodology and Principles

"5. Compare and contrast the sections in E-learning Methodology (Germany) "Part III – Creating Interactive Content" with the PDF "Nine Design Principles for E-Learning", including in your answer:

(a) to what extent the principles offered were the same?

(b) compare and contrast the two.

(c) which was the most instructive to you and why?

(d) discuss what you learned that you had not thought about before (hopefully there is something new in there!).”

(a) Extent the Principles Offered Were the Same

The two articles for this section of the report are “E-Learning Methodologies: A Guide for Designing and Developing e-Learning Courses” (Food and Agriculture Organization of the United Nations, 2011) and “9 Instructional Design Principles for Building an eLearning Curse” (Penfold, 2016). Both of these articles focus on helping course designers to create online courses. Both articles mention developing course objectives as one of the first steps in the course design process. They both discuss the importance of tapping into students’ prior knowledge and experiences. Developing meaningful instructional activities is also an important concept in both articles. Both articles also spend time on the presenting new information, developing student activities, and evaluating student progress. Both articles mention psychologist Robert M. Gange’s work on learning conditions, but Penfold’s article focuses more directly on applying Gange’s work to modern e-learning.

(b) Compare and Contrast the Two PDFs

The comparison (similarities) is mentioned above, so I will concentrate on contrasting the articles in this section. The first thing I notices was length; *E-learning Methodologies* (Food and Agriculture Organization of the United Nations, 2011) is an entire book that was designed for people who want in-depth information about designing e-learning courses while “9 Instructional Design Principles for Building an eLearning Curse” (Penfold, 2016) is only seven pages long and provides an interesting overview but has fewer details. Penfold’s article focuses more directly on applying Gange’s work to modern e-learning, while the United Nations book includes Grange’s work along with research conducted by a large number of additional people. The

differences in these works make them nicely complement each other. “9 Instructional Design Principles for Building an eLearning Curse” is a good introduction or summary when read before or after the much longer *E-Learning Methodologies: A Guide for Designing and Developing e-Learning Courses* (Food and Agriculture Organization of the United Nations, 2011).

(c) Most Instructive PDF

E-Learning Methodologies: A Guide for Designing and Developing e-Learning Courses (Food and Agriculture Organization of the United Nations, 2011) was the most instructive due to its length and shear number of details, but I will keep “9 Instructional Design Principles for Building an eLearning Curse” (Penfold, 2016) close by the next time I develop an e-learning course. Like many books, even short ones, I will refer to sections of *E-Learning Methodologies* as I develop my next course, but I do not expect to read the entire work again. Fortunately, it has a good table of contents that will help me in the future. This does not mean that “9 Instructional Design Principles” was not instructive. It is easy to get caught up in minute details and forget the big picture; the shorter article is a wonderful overview of the concepts that will help course designers in all fields of instruction. I do think, though, that the larger book is more instructional overall.

(d) Principles I Learned that I Had Not Thought about Before

One key concept that was new to me was to create a storyboard for my course (Food and Agriculture Organization of the United Nations, 2011). I have my students, many of whom cannot write, storyboard scenes during video creation lesson. I even take the time to storyboard lengthy videos, but I often prefer to just create an outline. I created an outline for the small e-course that I developed several months ago for another Blue Marble University course. I do not even storyboard the lessons I teach in my classes (I do not really have the planning time), but this

concept intrigued me. I will try storyboarding my next online course and see how it turns out. I am not much of an artist, but it will be nice to see if this technique helps me.

29 Free E-learning Tools from Capterra

"6. After browsing the "29 Free E-learning Tools from Capterra", please select and review two that you tried that you found particularly useful and easy to work with; as well as two that you tried that you found were difficult to work with or otherwise probably not useful [you are not required to test all 29, we recommend testing 6, but continue on until you can answer the question]. You may search outside this course (such as How To videos from YouTube for input on the 6 apps you chose to test)."

All of the following e-learning creation tools are on the "29 Free eLearning Tools" list (Medved, 2014). As the directions above stated, I began my search with this list then proceeded to look at the individual Web sites for additional information. After looking at several sites, I chose two useful and two not useful tools for this report. The other tools I looked at were neither my least favorite nor my favorite possibilities out of those that I selected to evaluate. The tools all had some problems, but some appeared better for course designers than others.

CourseLab 2.4 (not useful to me)

CourseLab 2.4 is the free version of CouseLab (WebSoft, 2017), software that instructors can use to create online courses. The current paid version is CourseLab 2.7, but if course designers do not need the most current features, they can use the older 2.4 version without paying for the software. There are some key differences between the free and paid versions, such as multiple language and mobile device support (http://www.courselab.com/view_doc.html?mode=doc&doc_id=5799960992579148566). Like other companies that have free and paid versions, I am sure that WebSoft hopes that people who

use the free version will eventually upgrade to the paid version.

I have put this in my "not useful to me" category for three main reasons. CourseLab 2.4 does not run on mobile devises. In today's mobile world, many e-students may want to access their courses from a variety of mobile devices. I would like to create a course that can be accessed on computers and mobile devices such as iPads and other tablets. Both current versions of CourseLab require Widows computers to create courses. My primary computer at work is an Apple computer, so the second major problem that I have with CourseLab is that the course design software only works on Windows computers. It would also be helpful for the instructors if they could receive detailed test results from their students, but that appears to be a function only of the paid version. CourseLab 2.4 may be helpful to other instructors, but it does not meet my needs.

Pearson's OpenClass (not useful to me)

I was sure that the next item I tried would be useful to me, but it was not. Pearson OpenClass (Pearson, 2017) intrigued me because it included social aspects of learning. I say, "included," as in past tense. Pearson is stopping this tool for educators as of January 1, 2018. I decided to investigate the alternatives on which Pearson is focusing, but neither of the options are free, so that investigation hit a dead end. I liked that OpenClass integrated nicely with Google Suite for Education and was device independent (learners could access content from many different devices). My school is a G-Suite school, but I am still learning how to utilize its many Web apps. I had hoped that OpenClass would be a fine tool, from a company I have heard about many times, but a retiring tool is ineffective. Unlike CourseLab 2.4, OpenClass will soon not be helpful to anyone, including its current users.

EasyGenerator (useful to me)

I like that EasyGenerator courses are created online (EasyGenerator, 2017). My computer is four years old and will not be replaced for at least several more months, so I am most interested in course authoring tools that do not require me to download any software. The registration process was simple. There are options for complete instructor design and for course template design. Both options begin with video tutorials that are easy to follow. The free version is, of course, more limited than the paid subscriptions, but my over-all impression was a positive one. This is not a free trial, but an ongoing free subscription. Course designers have to be more creative when weaving in higher order thinking skills items with the free version than with the paid version because of the reduces variety of quiz options, but it is not an impossible task. There is even a step-by-step process that assists new time users to create their first course. I agree that EasyGenerator is very easy, but the free version will not meet the needs of more advanced users who require a greater variety of options. This tool is better than many of the free course design tools that I looked at. EasyGenerator's ratings range from a four-star review at Capterra (2017) to a five star rating at eLearning Industry (2017). EasyGenerator is aimed at adult learners and might be a helpful tool when I develop professional development workshops for my co-workers.

EduBrite

The personal version of EduBrite (2016) is a free individual version of their more robust subscription versions. One aspect I particularly like is that the personal version is always free and not just a free trial. As with EasyGenerator, if you want to use additional tools, you will have to pay for them. Some of the helpful tools included with the free version of EduBrite are eleven different quest/survey question types (making it potentially better at addressing higher order thinking skills than EasyGenerator), a "self paced delivery system," and a wide variety of user tracking reports. The free version does not contain an iPad app, but tablet/iPad users can access

content via their Web browsers. Registration was simple, and the initial course development process was simple and easy to follow. This is another online course creation tool that did not require me to download any software to my already loaded computer. One problem with the free version that I immediately noticed was that there is only 500 MB of storage available. If a course developer wants to include videos, the media will have to be hosted elsewhere then linked to EduBrite (much like I have linked occasional videos to my WordPress site). EduBrite averaged five out of five stars on Capterra (2017b) and Software Advice (2017). EduBrite is a course creation service for adult learners; it might help me to roll out new educational professional development opportunities to the other staff members at my school.

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