

Course design on a budget +

So, the question is...Is it possible to design a complete course that contains interactivity and not only engages the learner, but teaches the learner something new and empowers the learner to apply the new skill using only free tools along with those available on one's computer? Since I am very big on testing my hypotheses, I thought I would attempt to do this very thing and then share my findings.

Throughout this article, I will point out the learning theories that I have applied to learning how to design a course on a budget. As with everything we (instructional designers) do, there is a beginning...something that spurs us on to design. Part of my thought process in coming up with the idea of this article and of the "mini-course" (Free Course Design Tools) was to consider my own shortcomings as an ID. Not that I do not have any technical skills and don't know how to apply those skills to software, but I do have limited access to design tools, such as those found in the Adobe eLearning Suite. Because of this, I wondered if it would even be possible to design a course with limited resources. Then, I thought about the free tools available for download from the Internet as well as the resources that I do have on my computer, which typically comes with any computer, ie. MSOffice. With these tools in mind, my thought is that yes, I can design an interactive, engaging course that will empower learners to apply their new skills.

So, the next step is to begin thinking more like an ID and use learning theories to design my mini-course.



The first task: Analyze

Following the [ADDIE Model](#) (Analyze, Design, Develop, Implement, Evaluate), I will first analyze the learning problem and identify the learner. The problem has already been identified: Is it possible to design a course on a budget, using tools available on a typical home computer, ie. MSOffice, Paint, and free downloadable software? When I consider the learner and the learner needs, I think about all of the instructors I've worked with in the past. And, I've worked with a wide variety of people. The range of knowledge and abilities runs the gamut, from those with very little skill (can send email and type up a document), to those who

can design artwork using the Adobe products. My audience will be somewhere in the middle of those skills. They are teachers who may be a tad skeptical that a course can be designed with digital access in mind and using existing software. They will be those who know how to get around on a computer, but have not taken the leap to test their limits. They may be a bit unsure of their abilities, but the reasons would be because they do not know of the myriad resources available to them via the Internet. These teachers are public school K-12 teachers, as well as college faculty.

Other things I need to be aware of are the electronic means to deliver the mini-course. Is it possible to post a PowerPoint for web access? Can I embed audio and video within that PowerPoint and post it to the Internet without losing video or audio quality? Will the PowerPoint still play the same as it does when I test it on my home computer? And, as I create this course, I too, will only use the tools available to me on my computer and for free download from the Internet. The one added tool will be a digital camera with video capture capability. Digital cameras can run anywhere from \$50 to over \$1,000 depending on your preference. But, for the purpose of this mini-course, I will keep my budget costs low. I will be using my Christmas gift to record video, a [Kodak EasyShare M580](#) digital camera. Cost ~\$170. I will also use a simple desktop microphone to record audio, such as the [Logitech USB Desktop Microphone](#) for ~\$20.

Lastly, the timeline: how much time will I spend in creating this mini-course? I think that depends on how much detail I want to include in the making of the mini-course. I am not under any other constraints in creating this course, since I am doing it for my own purposes and not for an employer. The timeline might be tighter if I were developing this course for my job. So, I may put more time into this mini-course so that specific areas of detail will get more in-depth attention.

The second task: Design

This is where I will begin to storyboard my ideas in reference to the mini-course. My ideas are to create a course that will show teachers how to utilize existing software and free downloadable software to design a course for digital access. I will include various topics such as using MSPaint, VideoSpin, Audacity and PowerPoint.

Create objectives: The objectives that are part of this mini-course have been created by following



[Bloom's Taxonomy of Knowledge](#) (cognitive), Skill (psychomotor) and Attitude (affective) behaviors, or the "...[end state of training.](#)" (Clark, 2009) Those objectives are:

Knowledge

- Explain how to incorporate existing digital resources into designing a course for digital access.

Skills

- Create a .jpg image using MSPaint.
- Record an audio file using Audacity.
- Embed an .mp3 file into MS PowerPoint.
- Capture a digital video.
- Edit a video file using MediaCope.
- Design a mini-course using MS PowerPoint.

Attitudes

- Solve a course design problem you have encountered in your teaching practice using existing digital course development tools.

Storyboard ideas: My ideas for the mini-course include creating 4 tutorials within PowerPoint

MSPaint	MediaCope
Audacity	PowerPoint

that lead the learner through the steps of using all four course development tools: Audacity, MSPaint, Media Cope and

PowerPoint. The storyboard starts out roughly like the depicted graphic. Each box is linked to the corresponding tutorial within PowerPoint. Each tutorial will include screen shots and steps in the process.

The graphic design used within the PowerPoint again will use only the tools available. I might use images or clipart available on [Microsoft's Office](#) website. I will also utilize MSPaint to create image files as I have done with the graphic on this page.

Creating the graphic image on this page:

1. Open up a PowerPoint slide.
2. Draw a box with the shape tools and make the outline of the box thick.
3. Draw two lines using the line tool to break up the box into four sections.
4. Use the text tool to identify each of the four sections.
5. Select each of the elements by holding down the "shift" key and clicking on each element: the outer box, the two lines and the text boxes.
6. Copy these elements as one element and paste it into MSPaint.
7. In MSPaint, save the image as a .jpg file.
8. Insert the image into a Word document that was created to write the article.
9. Resize the image to fit in line with the text - right click on the image. Go to Text Wrapping and choose "Tight".

Audio and video files of the tutorials will be embedded within the PowerPoint presentation. The presentation will be tested on my home computer to determine whether or not the audio/video files will play once the presentation is published to the web. I may also use [MSOffice's tutorials](#) to learn how to make this happen correctly.

Lastly, the content will need to not only teach new skills, but also measure the effectiveness of the training. I have toyed with the idea of a quiz, but also want to include some sort of deeper measurement. A question or two that will cause the learner to think deeply about how to apply their learning to what they do on a daily basis. I want to include a question that completes the learning objectives of the course..."Solve a course design problem you have encountered in your teaching practice using existing digital course development tools."

The third task: Develop

This is the time-consuming task of creating the course from start to finish. I have identified four tutorials that will be part of the mini-course. I will develop each of those tutorials



using the tools I have identified and incorporating various learning theories into the development of the course, so that the learner has a way of measuring the effectiveness of the training.

During this phase, I will completely develop the tutorials one after another. I

want to be sure to not miss a step in the training process, so developing each tutorial separately will give me the chance to reflect back on each tutorial and scrutinize each of them completely, filling in gaps as they might be identified, before moving on to the next tutorial.

Each of the tutorials will cover the use and implementation of one of the identified free digital tools. Screen shots and audio will be incorporated throughout each tutorial to aid in guiding the learner.

When all tutorials are complete, then the quiz and discussion question will be developed and incorporated into the PowerPoint presentation. The presentation will then become interactive. It will guide the learner through each tutorial by asking guiding questions throughout and prompting the learner to interact with the presentation.



The Fourth Task: Implement

In this phase, I plan to upload my mini-course to my blog and to my website and link it to the blog, as well as provide a link to the course within the “Instructional Design” tab

of my personal website. How I plan on evaluating the effectiveness may not garner any results. As of today, I have not had any feedback on my blog, or on my “[Creative Palette](#)” website, except for some

constructive criticism to improve the design of the website.

From the [Constructivist](#) theory of adult learning theory, I hope to gain feedback on the mini-course by posing a few questions throughout the course. If you are an instructor at any level, or if you are an instructional designer, or attending classes to become an instructional designer, I would appreciate your feedback. Take the mini-course and test yourself. Share your thoughts by posting to the blog, or go to the Creative Palette website and send a comment to my email. Answer the questions that are posed within the course through the comments in the “[About](#)” section of the website, or post your answers to those questions by commenting on this blog. Further instructions are listed below and in the blog.

The Fifth Task: Evaluate

The formative portion of this task has happened throughout the development of the mini-course. I realize though,

that the summative portion of this task may not happen unless I use a learning management system such as [Moodle](#). This LMS



is free open source software available to the online community. Many teachers use this LMS to manage and promote learning. Learners are tracked within this LMS and their successes and areas of improvement are identified by the software. Reports are available to the online instructors who create the courses.

The one drawback to using Moodle is that when you download the software to your computer, you are in essence making your computer act as an Internet server. While I think I might have enough skill to complete this process, I don’t believe I have the time it would take to learn how the process works, so that I can troubleshoot any problems that may arise.

Therefore, my best bet to gain enough information for my summative evaluation is to rely on people who click the link to my blog, or those who read the Creative Palette website.

Instructions: Answering questions from within the mini-course:

1. Write out the questions as they appear in the mini-course.
 2. Answer those questions in a Word document.
 3. Copy and paste those answers to the comments section of the blog.
- Or
4. Go to the [About](#) tab of the Creative Palette website and send your answers through the comments form.



Finally...a question for you:

As I had mentioned in this article, I would consider the learner who might take the mini-course as one who has some technical knowledge, but is unsure how to search out more knowledge, or may not know where to find the tools and how to apply that knowledge in using the digital tools freely available. I do not expect all learners to apply their learning in exactly the same way, though. Each teacher is unique and may use and implement the new knowledge as s/he wishes. Because of this, the final intention of this article and of the mini-course is solely to share that knowledge without any expectations. With this in mind, how might the intention of this article and the mini-course relate to the [Humanist](#) theory?

References:

Clark, D.R. (2009, May 12). *Learning: knowledge, skills, and abilities*. Retrieved from <http://www.nwlink.com/~donclark/learning/ska.html>