

Amy Hissom
ITEC 57430
Assignment #3
Technology Integration and Educational Psychology

Introduction

Throughout this course, students are required to work on a semester-long project in which they will apply the basic concepts and tools of web design to create and publish an original website, based on an instructor-approved topic of their choice. There will be various checkpoints throughout the life of this project, not only to evaluate their work to see where they may need help, but also to ensure that students are progressing in a timely manner. Over the course of this project, students produce the following pieces that will make up their complete product:

- Topic Approval Form
- Planning Analysis Sheet - Website Project Checkpoint #1
- Sitemap – Website Project Checkpoint #2
- Wireframes - Website Project Checkpoint #3
- Completed 10-page or more Website (two more progress checkpoints will be scheduled after wireframes, but before the final project due date.)

Listed below are the first two lessons for this project, which cover sitemaps and wireframes.

Lesson 1. *Web Project Sitemap*

- ✓ Students create a visual sitemap of their website that shows the hierarchy of pages and relationships between pages. Then they use electronic communication to present their work to their instructor and peers for review. The sitemap will be assessed via the assessment criteria.

Lesson 2. *Web Project Wireframe*

- ✓ Students create wireframe page layouts for the home page and content pages of their site, indicating where the logo, navigation, text, and images will be located. Then they use electronic communication to present their work to their instructor and peers for review. The wireframe will be assessed via the assessment criteria.

Lesson Plan 1: Visual Sitemaps

Subject: Website Design (Planning)

Grade Level: Beginning Web Designers (High School Students and above)

Duration: One week

Total Points Possible: 60

Description

This lesson introduces students to organizing techniques by creating a visual sitemap using SlickPlan, with the goal of helping them to master crucial steps in the website design planning process. "SlickPlan is a web-based sitemap/flowchart generator that allows for the creation of free sitemap and flowchart design. SlickPlan lets you create free flowcharts and sitemaps quickly and easily. Unlike other software programs, SlickPlan has only one purpose - to create beautiful, functional sitemaps and flowcharts. Slick Plan was developed with the web designer and developer in mind, but it can be used by anyone who needs a quick and professional sitemap or flowchart for their planning project." (*SlickPlan*) Currently, SlickPlan does not promote collaboration. However, there is a new version coming out soon that does, as well as, many other new features.

Objectives

- Identify the major areas of your site
- Identify the areas subordinate to each main area
- Create a slickplan.com account
- Create a sitemap to get a sense of the framework of your site and the relative importance of the various elements of your site.
- Three peer reviews

NETs

1. Creativity and Innovation

- a. Apply existing knowledge to generate new ideas, products, or processes
- b. Create original works as a means of personal or group expression

2. Communication and Collaboration

- b. Communicate information and ideas effectively to multiple audiences using a variety of media and formats

4. Critical Thinking, Problem Solving, and Decision Making

- b. Plan and manage activities to develop a solution or complete a project

5. Digital Citizenship

- b. Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity

6. Technology Operations and Concepts

- a. Understand and use technology systems
- d. Transfer current knowledge to learning of new technologies

(*ISTE | NETS for Students*)

Required Materials

- Internet Access
- Internet Browser such as Internet Explorer, Firefox, Google Chrome, etc.
- SlickPlan.com account

Instructional Procedures

- Textbook, Basics of Web Design: HTML5 & CSS3 Chapter 4: Web Design Basics
- Internet Resource - Information Architecture: Creating a Sitemap
http://usability.gov/methods/design_site/define.html#CreatingaSitemap
- Chapter Video tutorials provided by SlickPlan

Submission Requirements

Students will submit their sitemap projects by posting its public link in the appropriate discussion forum of the class website by the required due date. This due date is only one checkpoint for the final project. Students will be able to review their peers' sitemaps within the class website, where they can offer suggestions and comments that will aid in helping each other. Sitemaps will be graded based on the criteria listed in the rubric. However, since the final website project is not due until the end of the semester, students will have time to fix and improve areas that are lacking.

Grading Rubric

Criteria	Outstanding (15 points.)	Average (10 points.)	Needs Improvement (5 points.)	Score
Site Organization	The site is organized in an appropriate and usable manner.	Only one area of the site organization needs to be modified to result in a usable product.	Two or more areas of the site organization need to be modified.	
Web Pages	Lists each web page (at least 10).	Lists more than five but less than ten pages.	Lists less than five pages.	
Mechanics	Clearly labeled (including web page file name), readable,	Clearly labeled, readable.	Unclear or not readable.	
Peer Review	Completed three peer reviews.	Completed two peer reviews.	Completed one peer reviews.	
Late Penalty	5 points deducted for each day late.			
Total Score				

Attachments

Sitemap Example: *Ohio Puppy Connection Sitemap* - <http://www.slickplan.com/project/41703>

Ohio Puppy Connection Website – <http://www.ohiopuppyconnection.com>

Video Demonstration - <http://www.amyhissom.com/ITEC57430/SlickPlan/SlickPlan.html>

Lesson Plan 2: Website Wireframes

Subject: Website Design (Planning)

Grade Level: Beginning Web Designers (High School Students and above)

Duration: One week

Total Points Possible: 45

Description

This lesson introduces students to the creation of wireframes using Cacao, to define web page layout and usability, with the goal of helping them to master crucial steps in the website design planning process. “Cacao is a user friendly online drawing tool that allows you to create a variety of diagrams such as sitemaps, wire frames, UML and network charts. Cacao can be used free of charge. Cacao is a diagram creation tool that runs in your web browser. Multiple people can work together on the same diagram in real time. Diagrams can be published directly to websites, wikis, and blogs.” (*Cacao*)

Objectives

- Identify what a web page wireframe is.
- Describe how to use the wireframe as a tool in the web development process.
- Create a cacao.com account
- Create wireframe for homepage of the semester website project, that includes all of the following:
 - ✓ labeled boxes representing areas or regions
 - ✓ text representing content
 - ✓ crossed out boxes representing images
 - ✓ navigational features (tabs, navigation bars, links)
 - ✓ annotations explaining any dynamic functionality
- Express a solution using an advanced wireframe design tools
- Three peer reviews

NETs

1. Creativity and Innovation

- a. Apply existing knowledge to generate new ideas, products, or processes
- b. Create original works as a means of personal or group expression

2. Communication and Collaboration

- b. Communicate information and ideas effectively to multiple audiences using a variety of media and formats

4. Critical Thinking, Problem Solving, and Decision Making

- b. Plan and manage activities to develop a solution or complete a project

5. Digital Citizenship

- b. Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity

6. Technology Operations and Concepts

- a. Understand and use technology systems
- d. Transfer current knowledge to learning of new technologies

(ISTE | NETS for Students)

Required Materials

- Internet Access
- Internet Browser such as Internet Explorer, Firefox, Google Chrome, etc.
- Cacao.com account

Instructional Procedures

- Textbook, Basics of Web Design: HTML5 & CSS3 Chapter 4: Web Design Basics
- Handout: Wireframe Example
- Internet Resource - Information Architecture: Creating a Wireframe
http://usability.gov/methods/design_site/define.html#CreatingWireFrame
- Internet Resource - Cacao Wireframe Tutorial
http://issuu.com/annamiars/docs/wireframe_tutorial

Submission Requirements

Students will submit their wireframe by posting its public link in the appropriate discussion forum of the class website by the required due date. This due date is only one checkpoint for the final project. Students will be able to review their peers' wireframes within the class website, where they can offer suggestions and comments that will aid in helping each other. Wireframes will be graded based on the criteria listed in the rubric. However, since the final website project is not due until the end of the semester, students will have time to fix and improve areas that are lacking.

Grading Rubric

Criteria	Outstanding (15 points.)	Average (10 points.)	Needs Improvement (5 points.)	Score
Wireframe	Wireframe includes all required components, and includes relevant details. There are no grammatical errors.	Wireframe includes all required components but is lacking in details. There are three or fewer grammatical errors.	Wireframe is incomplete. There are three or more grammatical errors.	
Critical Thinking	Wireframe shows clear evidence of critical thinking (application, analysis, synthesis, and evaluation).	Wireframe shows some critical thinking (application, analysis, synthesis, and evaluation).	Wireframe is lacking critical thinking. The wireframe tends to be inaccurate or unclear.	
Peer Review	Completed three peer reviews.	Completed two peer reviews.	Completed one peer reviews.	
Late Penalty	5 points deducted for each day late.			
Total Score				

Attachments

Wireframe Example: *OPC Homepage Wireframe* -

<https://cacao.com/diagrams/3smXHdGLzOp1UMox>

Ohio Puppy Connection Website – <http://www.ohiopuppyconnection.com>

Video Demonstration - <http://www.amyhissom.com/ITEC57430/Cacao/Cacao.html>

Reflection and Benefits of the Technology Based on Educational Theory

This lesson is geared towards beginning web designers on the high school and/or college level. For these two lessons, students will work to develop a sitemap and wireframe for their individual semester-long website project, using SlickPlan and Cacao, which are online diagramming tools created especially for this type of project. The students' final project websites should consist of at least 10 web pages covering a topic of their choice (school, community, sport team, common cause, etc.). Students will also be encouraged to help each other by completing peer reviews for each part of the project.

There are several steps one must take in planning a website which involve problem-solving techniques. First and foremost, the project must be defined; the site's purpose, the target audience, and so on. The designer should research the content and gather information about the subject of the site. This creative process involves analyzing; taking things apart, and synthesizing; putting things together. After all the information has been gathered, the next step is to lay out the content in a table, web, or hierarchy. This will present the content of the page in a visual way, making the navigation design much easier and efficient. This stage of the planning process involves deciding on what pages the site will include, naming them, and then grouping them according to their content; sort of like creating a concept map. For example, Figure 1 depicts a concept map I created by brainstorming the topic of animals. Figure 2 shows what this same information would look like in a visual sitemap for a website.

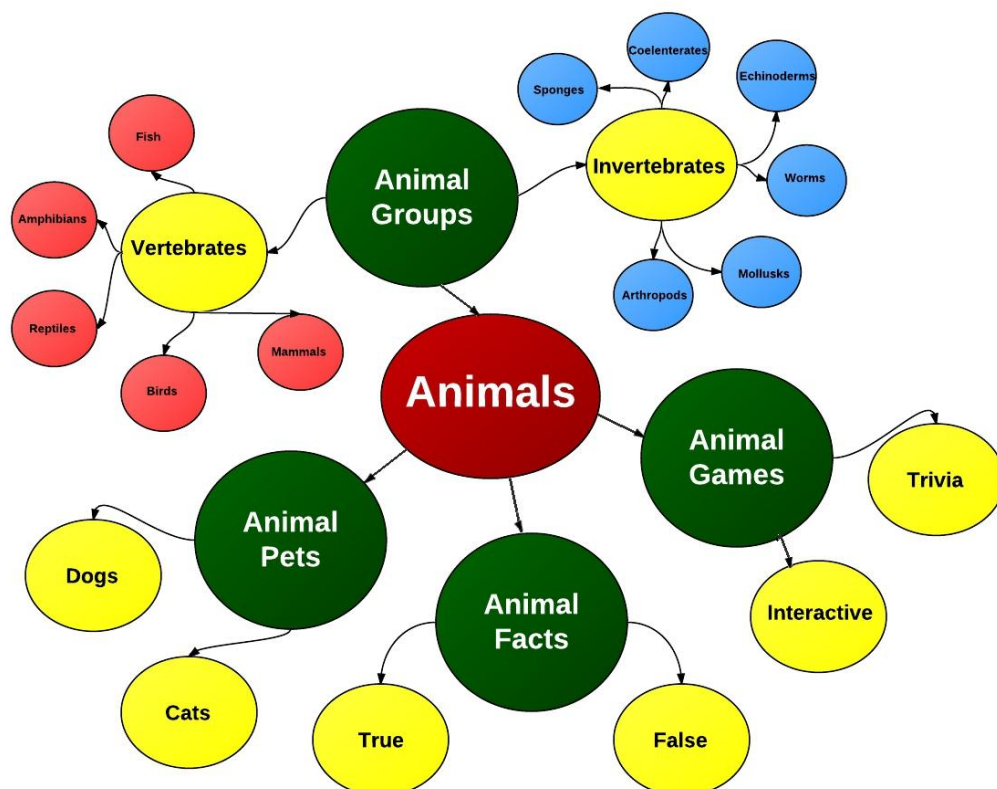


Figure 1

“A concept map is a graphical display that illustrates concepts in a particular field or domain and the relationships between those concepts. Although there are different definitions of concept maps, all have in common the idea of a central concept or theme, with related concepts or subcategories.” (Novak, J. D., & Cañas, A. J.)

Animal Website Sitemap

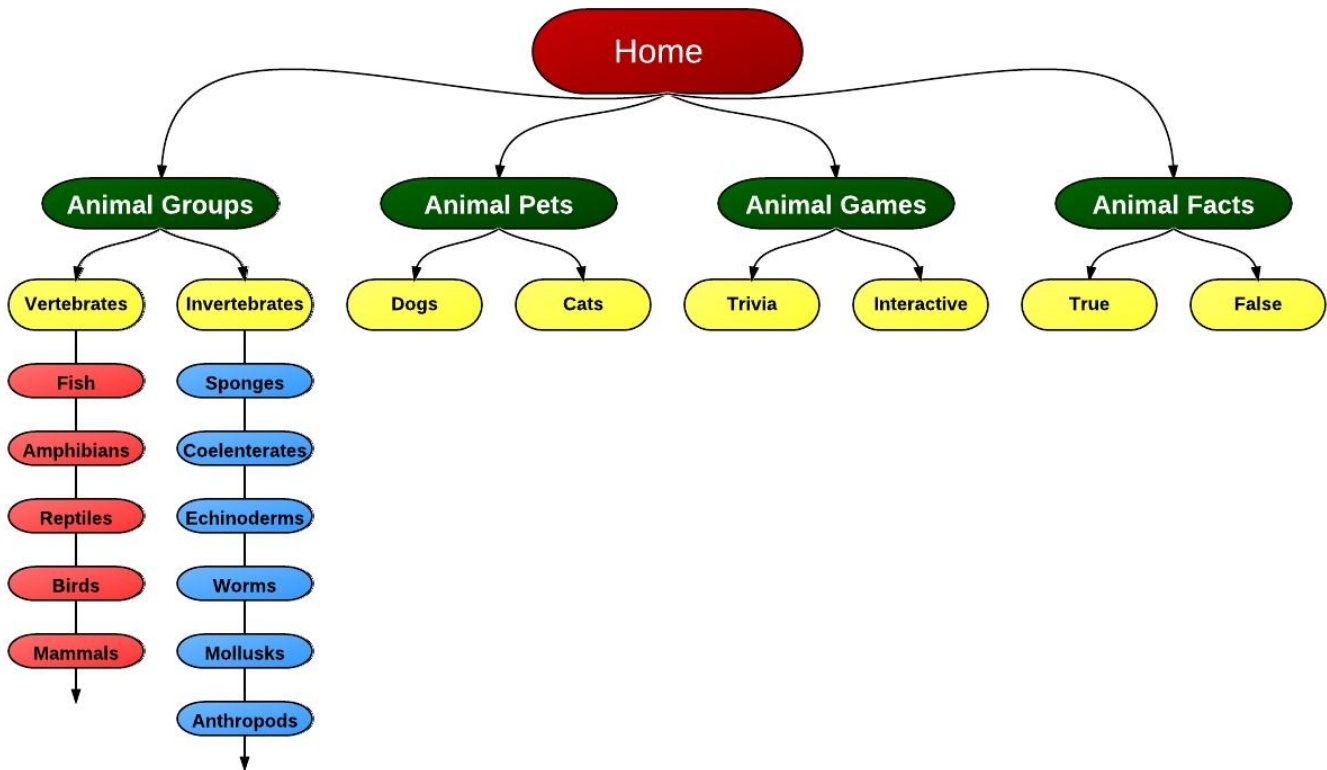


Figure 2

A sitemap is like an organizational concept map. PC Magazine defines sitemap as, “a hierarchical diagram of the pages on a Web site, starting with the home page at the top. A sitemap helps visitors navigate large, complicated sites by showing their entire structure. It is also used as a master diagram of the Web site for Web designers.” (*Sitemap Definition from PC Magazine Encyclopedia*)

Once students have researched their website’s topic and have decided what pages will make up their website, they will use SlickPlan to create a visual sitemap that organizes the site’s structure of those pages. After creating their sitemaps, students will then move on to creating wireframes for their anticipated pages using Cacao. “A wireframe is a visual illustration of one Web page. It’s simply meant to illustrate the features, content and links that need to appear on a page. One of the main purposes of a wireframe is to show you where each item should be placed on a page.” (*Information Architecture*)

Sitemaps and wireframes are common deliverables desired by clients who want a visual representation of a site. They are useful for scoping projects, especially when providing costs to potential clients. They are also valuable when a project kicks off and the website designer and client get together to discuss the information architecture of the site. They also help some clients better understand the importance of how content is grouped; the hierarchy and the links between content. Also, creating sitemaps and wireframes for their own website project will give the student a better understanding of how these types of deliverables will aid them in developing websites for future clients. Before applications like SlickPlan and Cacao came into play, designers would use the traditional pen and paper method to create sitemaps and wireframes.

By requiring students to complete peer reviews that offer suggestions and positive comments, this lesson, as well as the overall project, is promoting peer-assisted learning. According to (Salkind, 2008), "Peer-assisted learning can be defined as the acquisition of knowledge and skill through active helping and supporting among status equals or matched companions. It involves people from similar social groupings who are not professional teachers helping each other to learn and learning themselves by so doing."

While there are various forms of peer-assisted learning, this project falls under the form of cooperative learning, which "has been described as 'structuring positive interdependence' in pursuit of a specific shared goal or output" that "involves the specification of goals, tasks, resources, roles, and rewards by the teacher, who facilitates or more firmly guides the interactive process." (Salkind, 2008)

These diagramming techniques and technologies will promote visual learning in ways that help students demonstrate critical thinking by brainstorming and idea generation, identifying connections, understanding relationships, evaluating events and information, as well as problem-solving by "looking at the situation or issues from a systemic perspective". They also promote visual communication which "is an effective way to communicate and assess understanding and knowledge. Collaborating using visual diagrams can engage students, support participation and lead to greater understanding, knowledge and co-learning." (*Visual Learning in the 21st Century*)

Peer Reviews

The following peer reviews are what I posted in the discussion forum and include the name of my peer, as well as, the title of his or her lesson plan.

Pamela Peck

Jeopardy and Webbing Lesson Plans

I really like your Jeopardy lesson plan. I especially like that the students are separated into two teams. It seems to me that this is a plus for both teams. Reason being, if the five categories given to the first team are different than the five categories given to the second team and each team presents their final game to the opposite team, then both teams have the ability to learn all ten categories. In other words, each team is learning their own five categories by researching the questions they want to include in their own game and then they are learning the other team's questions and answers when playing the other team's game. This seems like a much better way of engaging students than traditional ways such as flashcards, etc. I hope that made sense.

I noticed that someone else commented about your rubric in terms of how you would grade the team if one member lacked in contribution. Just an idea, but maybe you could assign a category or certain number of questions for each member of the team. For example, if there are only five students in a team and there are five categories to research, each student could work on a different category each and each category could require a certain number of questions. Or, if there are more students to a team, the scenario could look something like this:

Team #1 - 15 students total (3 students per category): Each student is required to contribute 5 questions to their assigned category. Then you could require them to turn in an individual paper listing the questions they contributed. This way you would know who did do their part and who didn't. Of course 5 questions for each student may be too many. LOL! That would make for a 75 question Jeopardy game; double that for two teams. Anyway, it was just a number I used for an example.

Regardless, I think this is an excellent lesson plan! If anything else, I'm sure the upcoming United States geography test will prove well enough who did their part and who didn't when the final grade is posted.

I think you hit the nail on the head when you stated that, "While students are working on the assignment, they are encouraged to employ constructivism as they utilize various resources to develop their categories, answers and questions for the game. This method enables the students to develop reflective thinking and problem-solving skills; while, at the same time, the learner is motivated to generate, discover and build his or her framework of knowledge." Reason being, this lesson promotes student inquiry 100%, which in turn will encourage them to be life-long learners. Once they see what they can learn by researching information needed for your assignment, I think they will continue to research other things they may want to learn or know about.

I think you did a great job explaining the eno boards in your video. I think the PowerPoint option was a good idea. Reason being, the eno board is not an online application that you can demonstrate using screen recording software. At least from what I understand. Therefore, if I am right, to actually see it in action, one would have to video record you in front of one while showing how it works. I even searched Google for eno board videos and all I could find were ones like I mentioned. The following link is a good example:

Eno Board Quick Tutorial - <http://www.youtube.com/watch?v=2HS39mEij5M>

I'm sure a video like the one listed above is above what is expected for this assignment so I think you did a great job!!!!!!

I think you did a great job creating your lesson plan on webbing with the use of the Internet. The Internet does, and always will, play a big part in education. This type of lesson promotes critical thinking, problem-solving, communication, and creativity. I feel that it also applies to product-based learning. Your reflection based on educational psychology was very thorough and helped me to better understand the reasoning behind cognitive learning and constructivism. I especially like the use of webbing for brainstorming ideas that can be researched using the Internet for creating projects such as stories. One of my lesson plans pertains to creating visual sitemaps as part of the planning stage of a proposed website. When used for planning, sitemaps fall under the same theory as concept mapping, mind mapping, and webbing. Using these techniques for researching, allows the student to analyze a topic by breaking it apart through the brainstorming process, and then synthesize it using the webbing process to put it back together in an organized way. I hope that made sense! Great job!

Davison Mupinga

Simulation and Video Lesson Plans

I think you put together two very good lesson plans and I especially like the technologies you used for this assignment. I feel that simulations and videos for educational use will be around for a very long time. Also, I think simulations will grow even more sophisticated in the future.

Your reflections of the technologies based on education were very thorough. I had a really hard time with this part of the assignment. I think mainly because I have never had any classes pertaining to educational psychology and learning.

I know Mr. Williams stated that we are to make the videos ourselves, however, unless you have access to the driver's education simulation while it is in use, then I don't see how you could create your own video for that. Therefore, I think the video you did include that wasn't created by you was not only sufficient, but very effective.

I understand the point in adding the video explaining how to do corn rows, in terms of showing how videos can help learners understand a concept. The only suggestion I have for this part is that maybe it would be best if you create a video of your own that teaches something that you can use for an example. Overall I think you created a great product!!!!

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