Web 2.0 Tools in the Classroom
Unit Justification

Intended Audience

This unit was designed for a group of teachers of different ages and varied experience with technology. They have completed some form of higher education, either an academic degree or certification through a teacher's college. All of them read on a high level and are familiar with teaching concepts and with basic pedagogy ideas. However, some are nervous about using computers with their students, and by presenting these ideas in a visually appealing way it will help reduce some of their anxiety.

This website can either be used by a facilitator instructing teachers in the use of web 2.0 tools in the classroom, or it can be used as a resource by individual teachers looking for guidance on integrating technology into their lesson plans.

Graphic Description

What is a website? - This image was created to provide a technical overview of how web content is delivered, so learners in the course have a better understanding of how web 2.0 tools work and why they are so powerful. This is an important step in learning how to be a content producer; in my experience users who do have an understanding of the underlying mechanism of the tools create more sophisticated content. I used the design principles of CARP to create this image.

Contrast - Williams (1994) states that contrast is created when two elements are different, and if you're going to make them different make them VERY different to avoid conflict between elements that are similar, but not really the same. I chose two fonts that are nothing alike and used different font colors to avoid visual conflict.

Alignment - Alignment can be used to create a visual connection between disparate elements on a page (Williams, 1994). I lined up the elements so the eye naturally follows along in the correct path.
**Repetition** - Visual repetition can create perceptual associations, or chunks, which reduces cognitive load for the learner (Lohr, 2003). There are two different fonts on this page, and each is repeated for the same purpose. ’ve also repeated the arrow shape as the webpage is delivered to the user to show it's all one process. The green and blue colors are repeated in different elements on the page, to visually tie the whole thing together.

**Proximity** - Learners learn better when related information is placed close together on the page (Lohr, 2003). I’ve placed the text close to the image they are explaining, and each step in the process close to the ones before and after it to show they are related.

**Collaboration** - The purpose of this image is to show the skills that students learn by working on collaborative projects. I chose the flower shape because it symbolizes growth, and opening up - in this case, students opening up their work to let other students in. Orange signifies knowledge, friendliness, and gregariousness - all things we want to encourage with collaborative learning (Lohr, 2008). I decided to portray a range of the color orange, since students are each different from each other the way that different shades of orange are different, but are also working toward the same goal - signified by the different shades all being versions of the same color. The hands around the word collaboration show the collaborative effort of several hands writing together.

**Bloom's Revised Taxonomy** - This is an organizational graphic that gives teachers an overview of how web 2.0 tools can help them achieve their goals at each level of the taxonomy. I had two purposes in mind, the first was to show teachers Bloom's updated taxonomy (Wikipedia, n.d.), since many of them might not have seen it before, and the second was to show how technology fits in with every level of the taxonomy and can be used in all aspects of teaching. I chose a pyramid to represent the taxonomy, since each level of thought is built on what comes below it and relies on it in order to develop. To strengthen this idea of each section being dependent on the others, I created the pyramid as a puzzle to show that each piece is required...
to build the whole learning experience.

**Lesson Plan Checklist** - I created a checklist for teachers in this class to review when planning lessons or units that will involve technology tools. This graphic shows questions to ask when planning technology integration to make sure the lesson goals line up with what the tool has to offer. Lohr (2008) suggests chunking information, which I did by creating 4 distinct areas using the puzzle shape, so the relevant question is near the topic for each step. The fourth puzzle piece, marked Technology Tool, is a bit removed from the rest of the puzzle, since while any of the other 3 steps can be used as a beginning point for the decision, the choice of tool should always be driven by the other 3 questions.

**Does Video Support Learning?** - I created a poster explaining the benefits of video in learning. Space was a useful tool for this project since whitespace can be used for clarifying text, and I had a lot of text for this graphic (Lohr, 2008). I put related text near each other, but left enough space between them so reading would be easier on the eye. I used an asymmetrical layout for this poster, because as Lohr (2008) explains, symmetrical layouts can be static and less interesting. I generally find it easier to compose pleasing asymmetrical layouts.

**Digital Storytelling** - This graphic depicts the benefits of using digital storytelling in class. The basic shape of the graphic is a circle. Circles are good for identifying a process (Lohr, 2008), such as the learning depicted in this graphic. Each of these types of learning, which are encouraged through digital storytelling, are skills that also strengthen the other skills. The relationship between these skills is therefore shown through arrows, which form the circle around the main topic, to show they are all connected (Lohr, 2008).

**Problem Based Learning** - This poster shows teachers why they might want to use PBL in the classroom, and examples of web tools they can use. The examples are less important the the reasons to use them, since
the educational goals always come before choice of tools. Therefore I made the tools the background, and the list of concepts related to PBL the foreground. The figure-ground principle helps people focus on one visual element at a time, so they can process each element without suffering cognitive overload or visual confusion (Lohr, 2008). This graphic utilizes this principle by placing the more important information in the foreground, and the less important information in the background. This separates the information into 2 levels, making it easier for the reader to process both levels without mixing them up. The font used for the poster title is made of children's building blocks, since PBL is a self directed activity where students lead the learning process - much like the free play of children using blocks and toys. Also, PBL builds basic skills that will help students with later learning, and can be thought of as building blocks for learning.

Process Design

This course was designed with the goal of universal design. Trenholm (2001) explains that although many nonverbal codes are culturally based, many are universally understood. Whenever possible, I used icons that would be universally understood by teachers using this website. This is especially important since this course was designed for American-born teachers living in Israel, Israeli-born teachers, and Israeli-born teachers with Anglo parents from several different countries. Universal design was therefore the driving principle behind the course design.

Design in this case is more than just creating graphics. Design, or Instructional Design, is a planning process that improves the quality of the final product (Smith & Ragan, 2005). It involves converting requirements into information following the project specifications. I began development of this course by writing a unit plan of study, outlining course goals and media I wanted to incorporate into the course. I then designed individual graphics that explained the basic course concepts, and then developed a website around those concepts. The site menu is meant to be followed in a linear manner, although individual lessons are clearly marked and broken down so that users can skip around the site if they are looking for
specific information. Parts of the navigation are also included within site pages at the bottom; this repetition reinforces the overall website organization and keeps users from getting lost in the middle of a lesson (Krug, 2006).

The overall graphic design of the course was done in a colorful, fun way with the goal of reducing learner anxiety about the topic. Many teachers are interested in using technology in the classroom, but aren't comfortable using it themselves, or they've been told by the administration that they need to start using technology and have no idea where to begin. This course is meant to be a fun way to introduce teachers to ways of using technology tools, without having to change the way they teach – rather, technology is a useful supplement to current teaching practice.

References


