

# Standard 2 Development

This standard reflects the need to develop high-quality instructional materials including print, audiovisual, computer-based, and integrated technologies. Throughout my master's classwork, I have developed a variety of instructional materials. Very few of the materials developed use print technologies for creating paper-based materials. Efforts to reduce waste and the boom in computer and tablet use mean that we are now applying the visual principles used for print in web pages, flash animation, video, interactive applets, presentations and more. Developing these materials requires knowledge of and skill in using word processors, data gathering, and presentation, communication, and collaborative tools. It also requires an understanding of best practices for recording audio and visual live and from computer screens. One must also be able to work with other in synchronous and asynchronous teams to produce quality products to meet educators needs.

**For each benchmark, I have identified the artifacts and provided a brief description of how it applies.**

2.0.1 Select appropriate media to produce effective learning environments using technology resources.

[240:153](#) Our teaching materials included podcasts, video and websites. These instructional materials are appropriate for a variety of learners because they appeal to the visual, auditory, and verbal learners.

[240:232](#) Students work in pairs to research an energy source and create a presentation, and students choose which software meets their needs. I encourage students to use Google presentation or other collaborative web-based tool because they can collaborate from different locations on one document.

[240:240](#) I applied instructional design principles in the selection process to create sample media for the Blackboard professional training coursesite. I included videos, pictures and text-based media.

2.0.2 Use appropriate analog and digital productivity tools to develop instructional and professional products.

[240:153](#) We produced instructional materials using the following applications: Google Documents, GarageBand, Sound Recorder, Google Sites, Wikispaces, iMovie, VoiceThread and PodBean. These tools allowed us to collaborate and coordinate our efforts.

[240:139g](#) We produced our materials using the following applications: Google Documents, Google Sites, Wikispaces, iMovie, Skype, Jing, and Prezi.

[240:260](#) I used Power Point and iSpring to develop interactive flash animation.

2.0.3 Apply instructional design principles to select appropriate technological tools for the development of instructional and professional products.

[240:153](#) The website we created for the students includes podcasts, video, text, pictures, rubrics and calendars to create an activity that promotes higher order thinking of Bloom's Taxonomy because it requires students to analyze, evaluate and create.

[240:232](#) I integrated the concepts from the Research unit from Common Sense Media into this lesson. The Searching Unit Overview describes one lesson in which students learn strategies for conducting online research.

[240:139g](#) Our materials included video, screenshots, templates and websites. These instructional materials are appropriate for a variety of

learners because they appeal to the visual, auditory, and verbal learners.

[240:240](#) I applied instructional design principles in the selection process to create sample media for the Blackboard professional training course site. I included videos, pictures and text-based media.

[240:245](#) We applied the ADDIE instructional design process to determine the most appropriate tools for our presentation. We chose Prezi because of the visual interest, novelty, and suitability for presentations.

2.0.4 Apply appropriate learning and psychological theories to the selection of appropriate technological tools and to the development of instructional and professional products.

[240:153](#) The lesson also promotes higher order thinking because we use constructivist learning theories to engage students in their learning.

[240:232](#) This activity falls under the Constructive and Adoption cell of technology integration matrix. It is in the Constructive characteristic because students are constructing relationships between the prior knowledge provided during a presentation and their own understanding of the relationship between voltage, current and resistance. It is in the Adoption phase of technology integration because students are provided a link to the online simulation without the choice to use something else.

2.0.5 Apply appropriate evaluation strategies and techniques for assessing effectiveness of instructional and professional products.

[240:260](#) I created two short quizzes assessing student understanding of the content of the presentations.

2.0.6 Use the results of evaluation methods and techniques to revise and update instructional and professional products.

[240:139g](#) The project itself was evaluated by our classmates who suggested areas for improvement when we presented them with a formative evaluation. The evaluation was extremely valuable to our progress and helped us improve our artifacts immensely. For example, the feedback informed our decisions about how to communicate the relationship between the Wikispace and Google Template.

[240:240](#) I included strategies for assessing the product within the design of the training site.

2.0.7 Contribute to a professional portfolio by developing and selecting a variety of productions for inclusion in the portfolio.

[240:131](#) This paper is be a part of my professional portfolio along with my final projects for Emerging Instructional Technology, Media Planning and Production, and Instructional Development.

## 2.1 Print Technologies

2.1.1 Develop instructional and professional products using a variety of technological tools to produce text for communicating information

[240:232](#) This lesson plan includes online and print materials. The activity uses a voltage, current and resistance (VIR) table in order to help examine the relationship between voltage, current and resistance.

[240:131](#) I created the final paper using Microsoft Word and accessed a variety of text resources on the web.

2.1.2 Produce print communications (e.g., flyers, posters, brochures, newsletters) combining words and images/graphics using desktop publishing software.

Benchmark 2.1.2 does not directly apply. Instead of producing *print* communications, I created websites, presentations, online documents and flash content combining words and images/graphics using desktop publishing software and other tools.

2.1.3 Use presentation application software to produce presentations and supplementary materials for instructional and professional purposes.

[240:131](#) Along with the paper, I created a presentation using Power Point to argue my paper to the class via Adobe Connect.

[240:139g](#) After finding that the traditional storyboard method of planning was not ideal for planning a website, I did some research into site

<p>design. I created a site template, which helped the group understand the layout and interconnectedness of the Wikispace and template better.  <a href="#">240:245</a> We produced our presentation using Prezi.</p>
<p>2.1.4 Produce instructional and professional products using various aspects of integrated application programs.  <a href="#">240:139g</a> We produced our materials using the following applications: Google Documents, Google Sites, Wikispaces, iMovie, Skype, Jing, and Prezi. These tools allowed us to collaborate and coordinate our efforts.</p>
<p>2.2 Audiovisual Technologies</p>
<p>2.2.1 Apply principles of visual and media literacy for the development and production of instructional and professional materials and products.  <a href="#">240:139g</a> Our materials included video, screenshots, templates and websites. These instructional materials are appropriate for a variety of learners because they appeal to the visual, auditory, and verbal learners.  <a href="#">240:260</a> I used many examples of visual principles and elements to create the content of the presentations. The presentations were about visual design so incorporating visual and media literacy elements like the theory of multimedia learning.</p>
<p>2.2.2 Apply development techniques such as storyboarding and or scriptwriting to plan for the development of audio/video technologies.  <a href="#">240:139g</a> After finding that the traditional storyboard method of planning was not ideal for planning a website, I did some research into site design. I created a site template, which helped the group understand the layout and interconnectedness of the Wikispace and template better.  <a href="#">240:245</a> We created an outline and storyboard for our Prezi to make it easier for each person to add material.  <a href="#">240:260</a> I created an outline of each presentation before beginning. Then I created a script for each section and found appropriate visual examples.</p>
<p>2.2.3 Use appropriate video equipment (e.g., camcorders, video editing) to prepare effective instructional and professional products.  <a href="#">240:139g</a> We produced our materials using the following applications: Google Documents, Google Sites, Wikispaces, iMovie, Skype, Jing, and Prezi.</p>
<p>2.2.4 Use a variety of projection devices with appropriate technology tools to facilitate presentations and instruction.  I applied benchmark 2.2.4 throughout all of the classes using a variety of projection devices with appropriate technology tools to facilitate presentations and instruction. I presented several different projects using a variety of online tools as well as using a traditional projector.</p>
<p>2.3 Computer-Based Technologies</p>
<p>2.3.1 Design and produce audio/video instructional materials which use computer-based technologies.  <a href="#">240:139g</a> We produced our materials using the following applications: Google Documents, Google Sites, Wikispaces, iMovie, Skype, Jing, and Prezi.  <a href="#">240:260</a> I created three interactive flash presentations with audio, visuals and clickable elements.</p>
<p>2.3.2 Design, produce, and use digital information with computer-based technologies.  <a href="#">240:153</a> Our teaching materials included podcasts, video and websites.  <a href="#">240:139g</a> We produced our materials using the following applications: Google Documents, Google Sites, Wikispaces, iMovie, Skype, Jing, and Prezi.  <a href="#">240:245</a> We designed, produced and used a Prezi to present information.  <a href="#">240:260</a> I created three interactive flash presentations with audio, visuals and clickable elements.</p>

<p>2.3.3 Use imaging devices (e.g., digital cameras, video cameras, scanners) to produce computer-based instructional materials. <a href="#">240:153</a> We used the following hardware to produce our content: microphones, headphones, projector and PC and Mac computers. Our teaching materials included podcasts, video and websites.</p>
<p>2.4 Integrated Technologies</p>
<p>2.4.1 Use authoring tools to create effective hypermedia/multimedia instructional materials or products. <a href="#">240:260</a> I embedded the three interactive flash presentations into the class website.</p>
<p>2.4.2 Develop and prepare instructional materials and products for various distance education delivery technologies. <a href="#">240:153</a> Our lesson is web-based and could be implemented in an asynchronous learning environment.</p>
<p>2.4.3 Combine electronic and non-electronic media to produce instructional materials, presentations, and products.</p>
<p>2.4.4 Use telecommunications tools such as electronic mail and browsing tools for the World Wide Web to develop instructional and professional products. <a href="#">240:153</a> Our team communicated using Goolge Docs, email and chat. <a href="#">240:260</a> I created three interactive flash presentations with visual elements found using a creative commons search engine <a href="http://search.creativecommons.org/">http://search.creativecommons.org/</a>.</p>
<p>2.4.5 Develop effective Web pages with appropriate links using various technological tools (e.g., print technologies, imaging technologies, and video). <a href="#">240:153</a> Our team developed web pages for the lesson including pictures, video, text and audio.</p>
<p>2.4.6 Use writable CD-ROMs to record productions using various technological tools. Benchmark 2.4.6 does not directly apply. Instead of using writable CD-ROMs, I used flashdrives, external hard drives, and collaborative online tools including Google Docs and Sites, Prezi, Dropbox, and Wikispaces</p>
<p>2.4.7 Use appropriate software for capturing Web pages, audio wave files, and video files for developing off-line presentations. <a href="#">240:260</a> The three presentations I created could be viewed off-line using the flash file.</p>
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