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DETC 620
Section 9040
March 18, 2012
Evaluation of two Multimedia

Introduction

The following paper will evaluate two multimedia online programs. The evaluation bases on the

Qualitative Weigh and Sums (QWS) method including weights and ratings explained in the Baumgartner

and Payr, "Methods and practice of software evaluation: The case of the European Academic Software

Award (EASA)". The rubric's evaluates two online programs used to teach preschool age children their

ABCs. The rubric's evaluates the media based on seven pedagogical and seven usability criteria.

Multimedia

Let's learn to read - ABCs by Starfall, provides learning for children from preschool to

elementary school age. It provides learning segments for each letter of the alphabet. The media provides

pronunciation of both lower and uppercase letters. At the end of the each letter, it also provides the learner

with an exercise to reiterate the learned content in the media. Rubric one explains the results from this

media.

The second multimedia is Learn to Read – ABCs by Funschool. Funschool provides learning

games for preschool children. The games can also be used by teachers as lesson plans and activities for

their students. Funschool provides the letter and a picture of a corresponding letter. The results for this

media are in rubric two.

Method

To evaluate both multimedia's, certain criteria for usability and pedagogical, based on the

evaluation rubric created by group three, are used. In pedagogical, the following criteria evaluates:

objectives, validity, relevance, content, interactivity, user attitude, and evaluation of the media.

Concerning pedagogical criteria, the standards examine the content provided in the media. The content

must be current, credible, and meets learning objectives (Fresen & Boyd, 2004, p.11). The content must also be presented in a level that creates learning opportunities in problem solving skills, motivating and creates options for teachers to collaborate with student in the learning (Reeves & Harmon, 1994, p. 479-483). In usability, the rubric uses the following criteria: course overview, navigation, user technical access and support, and tools. This will evaluate the multimedia level of user friendliness, logical order of information and speed of the multimedia (Fresen & Boyd, 2004, p.11).

Baumgartner explains how to use the QWS rubric to evaluate a media based on weights and ratings. Each criterion can have certain weight such as the following: E – essential, *-very important, # - important (valuable), + - less important (marginally valuable), and 0 – zero. A criterion also lists certain standards. A multimedia has a rate for each standard based on the following ratings: *-meet standards, #-partially meets standard, + - marginally meets standards and 0 – does not meet standards. A standard cannot be a rate that is higher than the weight.

Results

The evaluation of both medias resulted in the following scores:

Starfall – Let's get ready to read - ABCs

   Rating: 14 * 28 # 0 + 0 0

Funschool – Learn ABCs

   Rating: 9 * 16 # 12 + 4 0

After evaluating and reviewing both multimedia, Let's get ready to read – ABCs by Starfall is the winner of the multimedia award. Both multimedia meet the weights in the areas of learning objectives and content in providing a media for a child to learn their ABCs. However,

Jeannette Lindsey
DETC 620
Section 9040
March 18, 2012
Evaluation of two Multimedia

Let's get ready to read gives the learner the opportunity to expand on the learned content, which is not available in Learn ABCs. In Learn ABCs, it gives only the letter and a picture of a word beginning with the displayed letter. It also provides sound for the word of the picture, so learners could hear the sound of the letter being displayed. In Let's get ready to read, the media provides the letter, along with a picture or animation, and sound pronouncing the letter. Through sound, the learner is able to learn how to properly pronounce both upper and lower case letters.

At the end of the segment regarding the letter for Learn ABCs, the program provides an arrow to proceed to the next letter. When the learner clicks on the arrow the page had to reload which took minutes for the page to upload to the main screen for the learner to choose the next letter. Let's get ready to read, provides the learner with visual directions on how to proceed through the program. When the media wants the learner to click on the letter, a glitter animation displays on the letter and arrow to proceed to the next page or letter. The media will then go to the next step without any type of delays.

Let's get ready to read also provides a learning exercise at the end of each letter. For example, with the letter Aa, the learner has two baskets one with the lower case and the other with the upper case letter. The learner matches the letters, which are on an apple, in the appropriate basket. If a learner attempts to match the letter incorrectly the program will not allow the learner to match the letter. This allows the learner to have another chance at matching the letter correctly. Learn ABCs, does not provide with any form of exercise to reiterate the learnt content in the media.

Jeannette Lindsey
DETC 620
Section 9040
March 18, 2012
Evaluation of two Multimedia

In summary, Starhall's Let's get ready to read – ABCs multimedia, provides the best opportunity for the learner to learn their ABCs and is the winner of the multimedia award. It provides essential steps for children in the beginning process of learning to read. Through animation, pictures, sounds and learning exercises, it gives the opportunity to build on what is being taught in the media. Even though Learn ABCs by Funschool, provides current content and meet the learning objectives concerning pedagogical explain in the rubric, it did not meet the additional standards in usability to earn the award. Let's get ready to read creates a learning environment that is interesting and engaging for the learner.

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DETC 620
Section 9040
March 18, 2012
Evaluation of two Multimedia

References

Baumgartner, P., & Payr, S. (1997). *Methods and practice of software evaluation: The case of the European Academic Software Award (EASA)*. Paper presented at the ED-MEDIA 97, Charlottesville.

Fresen, J. & Boyd, L. (2004). Caught in the web of quality. *International Journal Of Educational Development*, *25*(3), 317-331.

Reeves, T. C., & Harmon, S. W. (1994). Systematic evaluation procedures for interactive multimedia for education and training. In S. Reisman (Ed.), *Multimedia computing: Preparing forthe 21st century* (pp. 472-505). Hershey, PA: Idea Group Publishing.

Assignment 3's Rubric

Evaluating the following multimedia based on the following criterion: pedagogical and usability

Weights and rating are according to the QWS key (Baumgartner & Payr, 1997).

Weights: E = Essential, * = Very important, # = Important, relevant (valuable), + = additional, less important (marginally valuable), and 0 = zero, does not meet standards

Rating: * = Meets standards, # = Partially meets standards, + = Marginally meets, standards, and 0 = Does not meet standards

NOTE: *A criterion cannot be scored higher than its given weight*

Rubric 1

Multimedia: ABCs – Let's get ready to read

Publisher: Starfall

Link: http://www.starfall.com/n/level-k/index/load.htm?f

Pedagogical Criteria			
Criteria	**Standards**	**Weight**	**Rating**
Objectives	-Information was sufficient to meet stated learning objectives	*	*
Validity	-Content meets stated learning objectives -Content is accurate and credible -Content is current	E	Pass Pass Pass
Relevance	-Software encourages learners to apply knowledge to authentic tasks -Content encourages problem-solving related to realistic tasks -Content is grounded in a context that is understandable and relevant	#	# # #

Jeannette Lindsey
DETC 620
Section 9040
March 18, 2012
Evaluation of two Multimedia

Content	-Content offers multiple paths for learning	#	#
	-Content is scaffold to account for individual learning differences		#
	-The structure of the content is appropriate		#
	-Content is presented in manageable segments		#
	-The difficulty level of the content is appropriate		#
	-Media is appropriate for the assigned tasks		#
	-Opportunities exist for further learner growth and development		#
	-Content is comprehensive		#
Interactivity	-Schema is activated in introduction	#	#
	-Software encourages learner-content interaction		#
	-Content includes opportunities for learners to receive feedback		#
	-Opportunities exist for teacher to learner interaction		#
User Attitude	-Content is motivating	#	#
Evaluation	-Feedback is accurate -Feedback is presented at an appropriate level	E	Pass Pass
Usability Criteria			
Course Overview	-The learner is informed of objectives and goals	*	*

7

Navigation	-Information is "consistent and clear" and allows the learner to locate and access information easily -Learner is able to move between information on screens easily -Learner can establish position in the program -Application is user friendly -The navigation is easy to learn and use -The user can move through the program in an intentional manner without impediments	*	* * * * * *
Interactivity	-The search function accurately meets the learner's needs -User controls the pace of the program -Prompts clearly inform user of when to input information -Feedback is available upon learner request	#	# # # #
Sequence	-Information is sequenced logically and intuitively	*	*
Interface/ Graphic Design	-Frames displaying information are clear and organized -Colors and graphics are easy to view -The user's attention is directed toward the information required -Text font is legible and of appropriate size -Sound, if available, is clear -The integration of media and its presentation is aesthetically pleasing -Media is integrated and works together effectively -The arrangement of information is consistent and logical	#	# # # # # # # #
User technical access and support	-Technical requirements i.e. are there any software requirements that might prevent us -Technical support is available -Bandwidth and download speeds are adequate to	*	* * *

	complete tasks -If errors occur the learner can recover from them quickly and easily without loss of data		*
Tools	-Tools function correctly and accurately	*	*

Rating: <u>14</u> *   <u>28</u>   #<u>0</u> + <u>0</u> 0

Rubric 2

Multimedia: Learn ABCs

Publisher: Kaboose-Funschool

Link:

http://funschool.kaboose.com/preschool/learn-abcs/games/game_teach_me_abcs.html

Pedagogical Criteria			
Criteria	**Standards**	**Weight**	**Rating**
Objectives	-Information was sufficient to meet stated learning objectives	*	*
Validity	-Content meets stated learning objectives -Content is accurate and credible -Content is current	E	Pass Pass Pass
Relevance	-Software encourages learners to apply knowledge to authentic tasks -Content encourages problem-solving related to realistic tasks -Content is grounded in a context that is understandable and relevant	#	# + #
Content	-Content offers multiple paths for learning -Content is scaffold to account for individual learning differences -The structure of the content is appropriate	#	0 + #

	-Content is presented in manageable segments		#
	-The difficulty level of the content is appropriate		0
	-Media is appropriate for the assigned tasks		#
	-Opportunities exist for further learner growth and development		0
	-Content is comprehensive		#
Interactivity	-Schema is activated in introduction	#	#
	-Software encourages learner-content interaction		#
	-Content includes opportunities for learners to receive feedback		+
	-Opportunities exist for teacher to learner interaction		#
User Attitude	-Content is motivating	#	+
Evaluation	-Feedback is accurate	E	Pass
	-Feedback is presented at an appropriate level		Pass
Usability Criteria			
Course Overview	-The learner is informed of objectives and goals	*	*
Navigation	-Information is "consistent and clear" and allows the learner to locate and access information easily	*	*
	-Learner is able to move between information on screens easily		+
	-Learner can establish position in the program		+
	-Application is user friendly		*
	-The navigation is easy to learn and use		*
	-The user can move through the program in an intentional manner without impediments		+
Interactivity	-The search function accurately meets the learner's needs	#	#
	-User controls the pace of the program		#

	-Prompts clearly inform user of when to input information		#
	-Feedback is available upon learner request		+
Sequence	-Information is sequenced logically and intuitively	*	*
Interface/ Graphic Design	-Frames displaying information are clear and organized	#	#
	-Colors and graphics are easy to view		#
	-The user's attention is directed toward the information required		#
	-Text font is legible and of appropriate size		#
	-Sound, if available, is clear		0
	-The integration of media and its presentation is aesthetically pleasing		+
	-Media is integrated and works together effectively		+
	-The arrangement of information is consistent and logical		#
User technical access and support	-Technical requirements i.e. are there any software requirements that might prevent us	*	*
	-Technical support is available		*
	-Bandwidth and download speeds are adequate to complete tasks		+
	-If errors occur the learner can recover from them quickly and easily without loss of data		+
Tools	-Tools function correctly and accurately	*	*

Rating: 9 * 16 # 12 + 4 0