The Multimedia Award

Two Finalists

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Introduction

   "Multimedia is presentation of material using both words and pictures" (Mayer, R., 2001, p.2). A well designed and developed multimedia can enhance learning process. Distance education courses and traditional classroom courses employ multimedia technology to make the course more effective, challenging as well as fun and interesting. The Multimedia Award Panel is a group that organizes a competition for a variety of multimedia applications. The Multimedia Award Panel has appointed a jury to select a winner amongst two finalists competing for the Multimedia Award. This paper outlines the selection process based on a rubric created by the experts in the field. Assessment of the two finalists is based on pedagogical and usability criteria. Finally, the paper summarizes the evaluation and selection of the winner.

Multimedia Evaluation

   The jury used the rubric based on Quantitative and Sum Method (QWS). This method was selected over Numeric Weight and Sum (NWS) method because

- QWS uses a non- linear scale to assess multimedia software. As of today, there is no standardized linear scale for evaluating educational software. (Baumgartner, P. & Payr, S., 1997).

- QWS allocates weight for each criterion which delivers consistent results.

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The Jury created the criteria based on different pedagogical and usability features such as dialogue, presentation, user guidance, instructional and conceptual design, interface and graphic design, and user attitudes and affects. Each criterion was assigned a weight and a symbol was assigned to each weight. (Table 1.1) Each product was assessed and rated according to table 1.2

Symbol	Weight	Symbol	Rating
E	Essential	*	Meets standards
*	Very important / valuable	#	Partially meets standards
#	Important / valuable	+	Marginally meets standards
+	Additional / Less important	0	Does not meet standards
0	Zero		

1.1   1.2

In addition, the jury embraced the following rules as stated in the paper by Baumgartner, P. & Payr, S. (1997).

- Any criterion that received Essential was removed

- All the criteria that received '0' weight were removed

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- Any criterion that received a uniform evaluation were removed

The rubric (Appendix A) which is created by Group 1 has been slightly modified and some criteria were added as follows:

Usability additions

- Ease of use: The program can be run on multiple platforms.(Group 2)

- Feedback is available on learners' request (Group 3) (Kennedy et al.,1998)

- Adaptability: Program can be easily updated and changed to reflect current information (Group 2).

Pedagogical additions

- Provides clear goals and objectives for the intended audience (Group 2)

- The information is accurate and clear (Group 3) (Fresen & Boyd, 2004)

- Feedback is accurate (Group3) ((Reeves & Harmon, 1994)

The two finalists

Product A: **Med-Calc tutorial**

This product is developed by University of San Francisco Nursing Department. (http://www.m2hnursing.com/MedCal/module1_1.php) The product is intended for

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nursing students and provides some basics of math. The program is divided into three modules and each module is subdivided into different topics. A quiz is also included at the end of each module. A short pop up question appears after some topics during the module. Each module starts with a brief introduction and the learning objectives are clearly defined for all three modules individually.

Pedagogical perspective:

The product is well designed for the intended audience. It meets basic pedagogical standards such as a good dialogue, sufficient course content, and timely assessment. The learning objectives are well defined at the beginning of each module, which provides guidance to the students. The lessons are short and contain enough information required for that particular topic. Assessment throughout the module allows the users to revise and if necessary, relearn the topic. A quiz at the end of each module provides the overall progress. The product falls short in consistency. Few lessons in some modules do not have sufficient material. The product does not provide any pre-tests to assess user background.

Usability perspective:

The product has a good interface. An appropriate use of graphics helps understand a particular concept in detail. A static site map, which is expanded into all

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the modules and subtopics, is provided at the left hand. A user can easily locate the required sub-topic from the titles. However, the short cuts to the sub-topics take long time to load. The product also freezes and the recovery time is little longer. The program works fine in Internet Explorer and Google Chrome but it sometimes freezes in Firefox.

Product B: Development of the Head and Neck

This product is developed by Indiana University. (http://www.indiana.edu/~anat550/hnanim/index.html). The target audience is the beginner anatomy students. The program is broken down into four lessons. At the beginning of each lesson, a mandatory agreement form about participation is required to be filled out. Each lesson starts with a pre-test about that specific topic. A multiple choice questionnaire tests the knowledge and background of the user. The animations in the lessons can be viewed in chunks and a new tab opens up if the user whishes to watch the full animation video.

Pedagogical perspective

The product is divided into four modules. At the beginning of each module, a small multiple choice question pre-test is given to assess the user knowledge. The lesson objectives are clearly stated at the beginning of each module. Each module
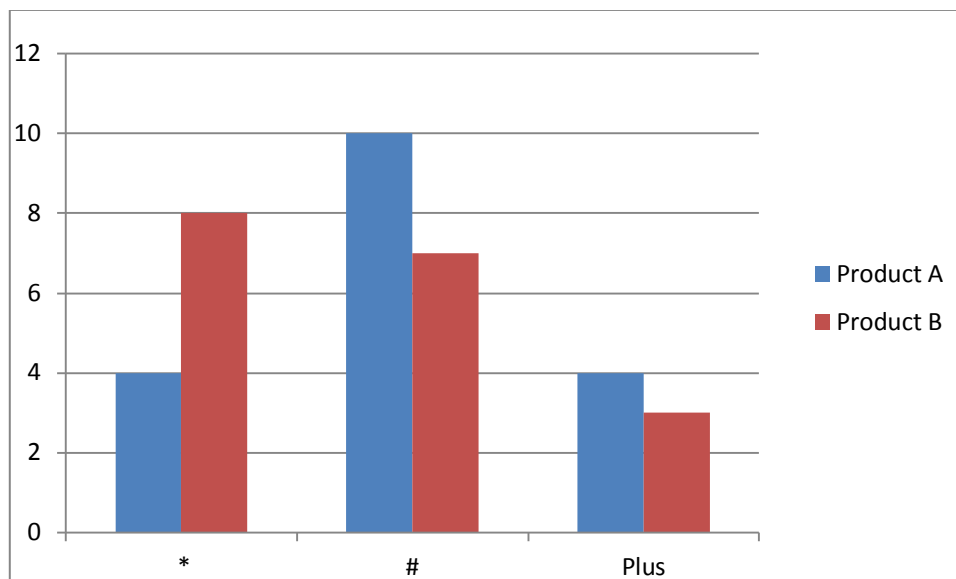
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offers an appropriate amount of information. At the end of each module, a post- test is conducted. The program does not have enough interactive features.

Usability perspective

The product is well designed and has suitable graphics. The overall presentation is consistent and clear. User can easily access and navigate through the program. A separate window opens up for the overall presentation if someone chooses to skip a step-by-step process. The program has a shortcoming with regards to the font color.

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Appendix A

Criteria		Weight of Criteria	Product A	Product B
Usability Standards				
Navigation and Orientation	User can easily access and locate information	E	Pass	Pass
	User can easily move between the related information	*	#	*
	User can establish their current position in the program	*	*	#
Interface and Graphic design	Information is presented within frames with little or no scrolling needed	#	#	#
	The use of animations and graphics support the learning objectives	*	#	*
	Sounds are appropriate to the learning and not a distraction	#	0	0
	Integration and degree of use of multiple media is carefully considered.	*	#	*
	The overall presentation is consistent in appearance (font sizes, spacing, styles)	*	#	*
	Appropriate font and background colors are used.	*	*	*
Ease of use	Program can be run on multiple platforms.	*	#	*
	The user can be actively involved and engaged in the program.	#	#	#
	The program is cohesive and well-structured.	#	#	#
Feedback	Feedback is provided in a	#	#	#

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	timely manner so retention of information is increased and misunderstood material is corrected.			
	Feedback is available upon learners' request	#	+	+
Adaptability and recovery	The program easily recovers from technical glitches and "freeze" situations	#	+	#
	Program can be easily updated and changed to reflect current information	*	#	*
Presentation	The program is free of grammatical and spelling errors	E	Pass	Pass
	The program has appropriate font and colors	*	#	+
Support	Online help is available for both users initiated and system initiated requests.	*	+	#
Pedagogical standards				
Objectives and directions	Introductory directions make the goals of instruction and expectations clear.	*	#	*
	Provides clear goals and objectives for the intended audience	E	Pass	Pass
Dialogue	The program supports user in completing the task.	*	*	#
	Dialogue is consistent and corresponds to the user's characteristics.	*	*	#
	Dialogue can be modified to suit task, preferences, or user skill.	+	+	+
Content	The amount of material presented is appropriate (i.e.,	*	*	*

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	not overloaded).			
	The information is accurate and clear	E	Pass	Pass
Suitability for learning	The information is conveyed quickly and accurately.	E	Pass	Pass
	The information can be distinguished accurately	*	#	*
	The meaning is clear and easily comprehended.	*	*	#
Assessment	The program offers timely assessments on user's progress	*	*	*
	The program offers pre-assessment	#	+	#
	Feedback is accurate	*	#	*

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