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Multimedia in the University Textiles and Clothing Classes

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Multimedia in the University Textiles and Clothing Classes

Abstract

Teaching has always been a multimedia enterprise; what has changed dramatically is the technology available for delivering course information. The use of technology for today's "digital native" students is an assumed rather than a novel activity. From a pedagogical perspective, technology is a powerful tool for customizing instruction to the needs of individual students. Multimedia provides for an integrated multi-sensory interactive presentation. Studies have indicated that computer-based technology can improve student learning and retention and enhance engagement with course content. Furthermore, multimedia may help people learn more easily because it responds to diverse learning preferences. The purpose of this article was to better understand students' perceptions of their learning and enjoyment of the use of specific technologies used in multimedia applications in the textiles and clothing classroom. The authors specifically sought to analyze these concepts because past studies have suggested optimal learning occurs when students are interested in the subject matter and immersed in atmospheres that make learning enjoyable. In this study, 294 students in four courses at a large university comprised the sample. The findings suggest that utilizing a diversity of multimedia applications in textiles and clothing courses may enhance student learning and enjoyment of the subject matter. The incorporation of multimedia into instructional delivery can enhance the teaching and learning processes because meaningful connections between text and graphics allow for deeper understanding than from either alone. Multimedia has the potential to bring abstract concepts to life and meet the expectations of today's students. (Contains 1 table.)

Disciplines

Fashion Design | Fiber, Textile, and Weaving Arts | Industrial and Product Design

Multimedia in the University Textiles and Clothing Classes

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Teaching has always been a multimedia enterprise; what has changed dramatically is the technology available for delivering course information (DiLeo, 2010; Ludwig, Daniel, Froman, & Mathie, 2004). The use of technology for today's "digital native" students is an assumed rather than a novel activity (Hwang & Rudd, 2009; Prensky, 2001). From a pedagogical perspective, technology is a powerful tool for customizing instruction to the needs of individual students (Boorady & Hawley, 2008; Brunjak, 2009; Gentry, 2007). Multimedia provides for an integrated multi-sensory interactive presentation (Neo & Neo, 2004). Studies have indicated that computer-based technology can improve student learning and retention and enhance engagement with course content (Fletcher, 2003; Mayer, 2001). Furthermore, multimedia may help people learn more easily because it responds to diverse learning preferences (Mayer, 2003). The purpose of this paper was to better understand students' perceptions of their learning and enjoyment of the use of specific technologies used in multimedia applications in the textiles and clothing classroom. We specifically sought to analyze these concepts because past studies have suggested optimal learning occurs when students are interested in the subject matter and immersed in atmospheres that make learning enjoyable (Starnes & Carone, 2002).

In this study, 294 students in four courses at a large university comprised the sample. Courses included introduction to textile science, apparel product development, survey of European and American dress, and 20th century fashion. The four were selected because of the reliance on multimedia applications for teaching. In each of these courses, the instructor utilized at least one of the following during each class session: PowerPoint, videos, DVDs, and/or YouTube. The sample included female students (93%, 272 students) who were enrolled in the apparel major (87%, 256 students). Approximately 82% (240) of the participants were Caucasian and the remaining students were African American, Asian American, and Hispanic American. The distribution of the sample included freshmen (11%), sophomores (18%), juniors (38%), seniors (30%), and graduate students (3%).

Students were asked to think about their ideal class and indicate on a 5-point Likert-type scale (strongly disagree = 1, strongly agree = 5) how the use of particular multimedia "would contribute most toward your learning of the subject matter of this course" and "What amount of classroom time with the following teaching techniques would contribute most toward your enjoyment of the subject matter of this course?" Findings are presented in Table 1.

The highest mean for contribution to learning was the use of PowerPoint, followed by videos and DVDs and then YouTube. The highest mean for enjoyment was with videos and DVDs, followed by YouTube videos, and finally PowerPoint. The authors were surprised that the older forms of technology—video, DVD, and PowerPoint—fared as well as the newer social media, YouTube. This may suggest students learn from and enjoy different forms of technology, perhaps

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Table 1. Mean results of student learning and enjoyment with type of multimedia ($n = 294$)

MEDIA	LEARNING		ENJOYMENT	
	MEAN	*SD*	*MEAN*	*SD*
PowerPoint	4.08	1.04	3.43	1.23
Videos and DVDs	4.00	1.13	4.22	1.01
YouTube	3.79	1.27	4.17	1.10

depending upon the content of the multimedia and its use in the particular class.

> The older forms of technology—video, DVD, and PowerPoint—fared as well as the newer social media, YouTube.

Students were provided space to write comments regarding the use of multimedia in the classroom. The authors selected representative statements from each class that added understanding to the quantitative data. These comments included "Different types of technology help me learn a lot"; "The multimedia component of courses makes lectures interesting and tangible"; "The use of videos and pictures is very helpful in recalling information and reinforcing the style of the period"; and "The YouTube videos shown in class help me to grasp the feel of whatever period we are talking about."

> The findings suggest that utilizing a diversity of multimedia applications in textiles and clothing courses may enhance student learning and enjoyment of the subject matter.

The findings suggest that utilizing a diversity of multimedia applications in textiles and clothing courses may enhance student learning and enjoyment of the subject matter. As studies state, presenting information in different modalities—visual plus auditory, for example—can lead to increased comprehension of course content (Mayer & Moreno, 1998). The incorporation of multimedia into instructional delivery can enhance the teaching and learning processes because meaningful connections between text and graphics allow for deeper understanding than from either alone (Mayer, 2001). Multimedia has the potential to bring abstract concepts to life and meet the expectations of today's students.

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