

Chapter XIII

Creative Remixing and Digital Learning: Developing an Online Media Literacy Learning Tool for Girls

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ABSTRACT

This chapter explores how media literacy education may continue to be responsive and relevant to the continually changing nature of popular culture through the development of innovative online multimedia educational programs. Because pre-adolescent and adolescent girls are actively involved in the consumption of popular music, competitive performance television programs like American Idol as well as online social networks, it is important to examine the constructed nature of these new types of messages and experiences. My Pop Studio (www.mypopstudio.com), a creative play experience for girls ages 9 to 14, was developed by the authors to address the need for media literacy skills among this group. We present a model for assessing the impact of the program on learning that incorporates the dimensions of pleasure, a sense of mastery, participation in an online community, media literacy skills, and other outcomes. Online games that use creative remixing techniques may promote metacognition, reflection, and critical analysis skills. Girls need opportunities to strengthen critical thinking skills about mass media and popular culture and the use of online learning environments may support the development of adolescents' media literacy skills.

INTRODUCTION

An important challenge facing educators today is the need to keep education relevant to the continually changing media environment of the 21st Century. Media literacy education, while still at the margins of mainstream educational practice, has made some significant inroads in a number of nations, as educators develop approaches to strengthen students' critical thinking and communication skills through activities involving critical inquiry, media production, discussion about media and society, and close analysis of media texts (Dickson, 1994; Felini, 2004; Hart, 1998; Hobbs, 2004). Of course, in some schools, teachers hesitate to explore topics related to popular culture, a phenomenon which may diminish one of the major strengths of media literacy: its perceived relevance in bridging the gap between the classroom and the culture. This problem is challenging to address, because teachers who have fears about the perceived value of popular culture may not want to continually adapt their curricula to match the changing media environment. With the intense schedule of teaching as many as 150 students per day, most teachers do not have the luxury of modifying their curriculum extensively. In some schools, teachers use video and print artifacts that are nearly 10 years old (Hobbs, 2007). There is a need for curriculum resources that can help educators incorporate media literacy into the curriculum with materials that represent the rapidly-changing world of technology, media, and popular culture.

Recently, there have been some explorations as to how to help educators introduce media literacy through the use of online media. This chapter explains one example of this new work: the development, implementation, and assessment of My Pop Studio (www.mypopstudio.com), an online creative play experience developed by the author under a contract from the U.S. Federal Government, Office on Women's Health. This chapter examines how online games can introduce key

ideas of media literacy by taking advantage of the unique characteristics of the online environment's capacity to blend play and learning in a creative play environment where users can experiment with the processes of creating media, remixing existing content, and analyzing messages. This chapter examines how creative play, combined with metacognitive modeling, may promote learning of key media literacy concepts through activities that include media analysis and media production.

TARGETING ADOLESCENT GIRLS

Adolescence is a challenging time of life. Between age 10 and age 15, many girls in both developed and developing nations lose confidence and diminish their health outcomes as they move through puberty. At age 10, girls are confident, spunky, outspoken, and see themselves as healthy, capable, and strong. By age 15, 30% of American teen girls are smokers (Gidwani, Sobol, DeJong, Perrin, & Gortmaker, 2002). Many have chosen to avoid more rigorous courses in math and science, even when they have the capability to perform well in these classes. In the United States, teen pregnancy rates, while declining since the 1990s, are still high, especially among young women living in poverty. Tween and teen girls experience psychological depression. More than 4 million teen girls shoplift. Nutrition and body image create problems for the health of teen girls (Jones, Bennett, Olmsted, Lawson, & Rodin, 2004; Kilbourne, 1999; Lazarus et al., 2000).

For girls, life during adolescence can be especially stressful in the intense peer culture of adolescence. Expectations from peers and family, the pressure for material possessions, and social relationships take center stage. An online survey commissioned by Girls Incorporated and Harris Interactive between March 14, 2006, and March 30, 2006, examined opinions of more than 2,000 U.S. youth to focus on the ways gender

stereotypes and expectations shape the lives of girls and boys (Girls Inc., 2006). The survey data reveal that there are persistent gender expectations being compounded by a growing emphasis on perfection, resulting in mounting pressure on girls to be supergirls. Three-quarters of girls (74%) in the study agree that girls are under a lot of pressure to please everyone. More than half of girls in grades 6 to 8 say they are under a great deal of stress. The online world of social networking, IM/chat, and cell phones, can be overwhelming, exhausting, and hard on the ego (Mazzarella, 2005). Many adolescents live in homes with parents who have slender knowledge about the complexities of online communication; as a result, many girls navigate the ever-changing waters of online media and mass media and popular culture with little meaningful guidance from teachers or parents.

Health communication theory suggests that media messages impact health-related behaviors by fostering knowledge, beliefs, and attitudes that are conducive to behaviors, either desirable or undesirable (Finnegan & Viswamath, 2002). The media-behavior link is well established in the areas of adolescent sexual behavior, aggression, body image, eating disorders, alcohol use, and tobacco use (Brown & Walsh-Childers, 1994). Many researchers attribute these ill effects to the ability of the mass media to act as a powerful agent of social influence—modeling, normalizing, and glamorizing unhealthy behaviors for impressionable young people (Bryant & Zillmann, 1986). Media literacy education can be a means to counter these influences by increasing awareness of media influence, helping young people recognize that media messages are often explicitly designed to make people, products, attitudes, and behaviors (frequently unhealthy ones) appear attractive.

A sense of competence is also important for adolescents. Girls can acquire a sense of competence in mastering different challenges of online media. The public health literature informs us that media literacy education can increase a

sense of competence among adolescents, which is considered to be a *protective factor* (Bergsma, 2004). During a time when feelings of confidence diminish, high-interest technology activities that appeal to girls' interest in critiquing media and popular culture may help them to continue to see themselves as capable, competent, and part of a creative and critical community, able to make good choices about their lifestyle and health (Hamilton & Hamilton, 2004).

AN ONLINE CREATIVE PLAY EXPERIENCE FOR MEDIA LITERACY

In 2006, we created My Pop Studio in collaboration with Sherri Hope Culver of Temple University and Dave Shaller of Eduweb, a multimedia production firm in St. Paul, Minnesota. Fifteen different online play activities of My Pop Studio are designed to strengthen media literacy skills, promote positive youth development, and increase awareness of the role of media in health. Highly interactive creative play activities guide users through the process of deconstructing, analyzing, and creating media. Video segments, flash animation, media deconstruction games and quizzes, and moderated blogs make the Web site lively, fun, and educational. Users select from four behind-the-scenes opportunities to learn more about mass media: In the **Magazine Studio**, users compose a magazine layout featuring themselves as celebrities, exploring the differences between celebrities and heroes. They write an advice column to discover the formulas used in magazines. Girls can also explore the power of digital retouching and reflect on the role of body image in today's culture. In the **TV Studio**, users edit a TV show where they can experiment with juxtaposition of images to create multiple storylines. They reflect upon their TV viewing choices and screen use, comment on teen celebrities, and compare their daily screen time with others. In the **Music Studio**,

users create a pop star and compose her image and song to learn about how values messages are communicated through image and language. Girls can explore the power of music in selling a product and search for truth in media gossip. In the **Digital Studio**, users test their multitasking abilities. They share the challenges of digital life online. They consider the “what if’s” of social networking sites and reflect on the power of media and technology in their social relationships.

Iterative prototypes and playtesting are critical to the design of educational multimedia. Playtesting can “help resolve conflicts among pedagogy, content, and gameplay by moving disagreements from theoretical stances to demonstrated success or failure of design concepts” (Winn & Heeter, 2006, p. 1). In developing My Pop Studio, we used formative evaluation with 60 girls ages 9 to 14 from six different geographic regions of the United States to ensure that the learning environment was responsive to the lived experience of this age group. At key periods during the year-long development process, girls participated in a series of meetings where they could offer ideas, suggestions, and feedback about the development of the site. Girls reviewed prototypes and contributed ideas to all aspects of the content and design process; as a result, they developed an intense sense of ownership about the Web site.

BALANCING PLAY AND LEARNING THROUGH CREATIVE REMIXING

Popular music takes center stage in My Pop Studio because the scholarly literature suggests that adolescent girls are making active use of music and celebrities in their own identity formation (Cashmore, 2006; Marshall, 2005). Among media literacy educators who specialize in skills related to critical analysis of news and advertising, this topic is just beginning to be explored. For example, British researchers have conducted case studies of girls’ use of online media to explore topics of

fashion, beauty, and identity, finding that girls’ interactions with online fashion media can be a site of learning for girls to explore critical perspectives through fantasy play (Willett, 2005). Because girls this age are beginning to read fashion magazines, we wanted to address issues of body image and digital image manipulation. Girls are also actively participating in watching competitive performance television programs like *American Idol* and *So You Think You Can Dance*, so we wanted to build upon this interest in introducing media literacy concepts.

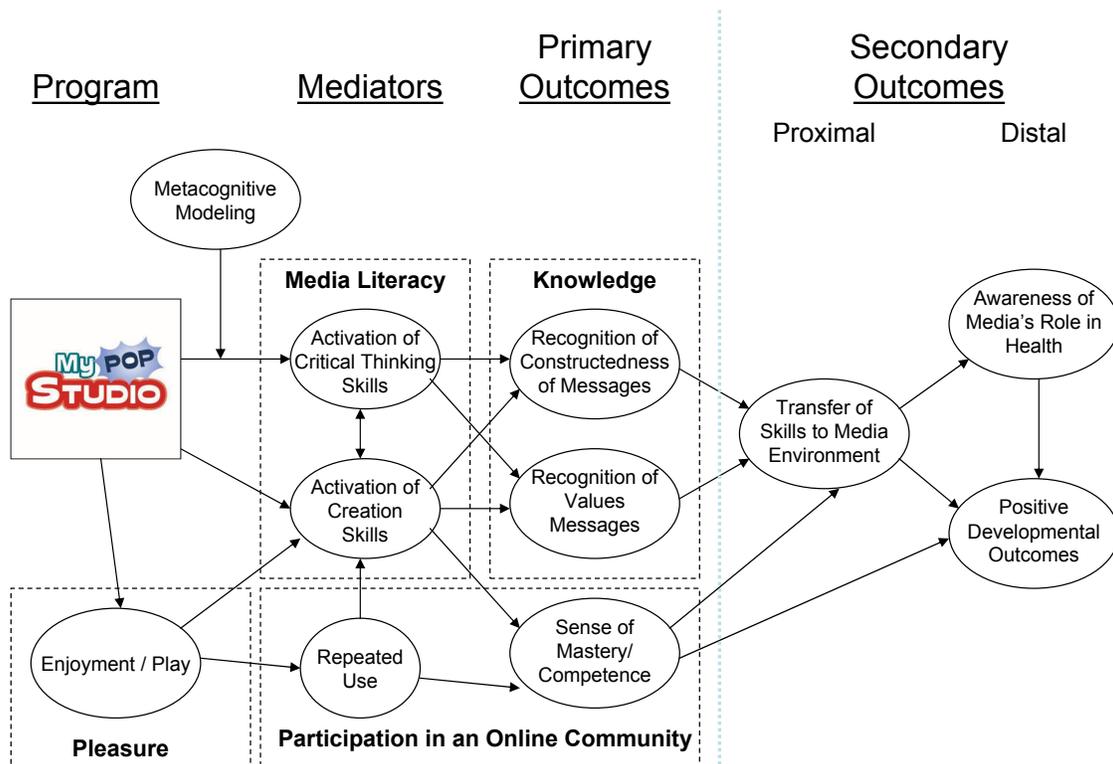
My Pop Studio uses an approach to creative composition that takes advantage of remixing as a creative aesthetic. Remixing is now an important part of contemporary media production that involves the appropriation of existing cultural products for the development of new creative works (Lessig, 2004). In remixing, media texts get re-interpreted by other creative people through techniques of collage, editing, and juxtaposition (Jenkins, 2006). Remixing can be a vehicle for people to comment upon the role of media and technology in society. From the point of view of media literacy educators, remixing can strengthen media literacy skills because it can deepen people’s awareness of an author’s purpose and context. Through strategic juxtaposition and shifts in context, messages change their meanings. Remixing can also illustrate the function of *context* in the meaning-making process. For example, in several activities on My Pop Studio, users can select small samples of existing media texts and juxtapose them to create new meanings to experiment with the relationship between meaning and context. In the TV Studio, users can select pre-existing segments of video and edit them together to create original sequences. In the Music Studio, users can select small segments of audio and experiment with how popular music reshapes the symbolic function of various products targeted at girls and young women. With the rise of user-generated content online, remixing needs to be seen as a pedagogy that enables users to fully participate in contemporary culture (Jenkins, 2006).

As with much educational multimedia, the balance of play and learning is a complex and delicate one that calls upon and exploits certain expectations about personal and social identity (Hayes, 2005). Because My Pop Studio is designed to be used by girls, with or without a teacher or other gatekeeper, the experience must be inherently entertaining, or users won't play with it. In the online play environment, play and learning are related, so the format of My Pop Studio exploits the "behind-the-scenes" perspective to offer information about issues in media industries—minus the didacticism or preachiness that can be found on a number of media literacy Web sites that adopt a protectionist stance towards the dangers of mass media. Unlike traditional curricula, My Pop Studio is self-implemented. Users may choose which activities to engage in, to what extent, and how many times to play. These decisions result in

program implementation or "dosage" levels that are likely to vary greatly among users.

In evaluating the potential of My Pop Studio to strengthen media literacy skills, we observed users playing with the program in order to develop a model that conceptualizes key elements to guide our current and ongoing research in the assessment of program effectiveness. As shown on Figure 1, there are two cross-cutting media literacy skills activated while playing: *critical analysis skills* and *media composition skills*. These two skills are linked to knowledge outcomes, including: (1) awareness of the constructed nature of media texts, and (2) awareness of how values messages are presented in media texts. Constructedness refers to the many choices that are involved in media production and the ways in which message design characteristics can contribute to meaning. Values messages refer to the ways in which

Figure 1. A model of program impact for My Pop Studio



messages are designed to convey ideas about desirable lifestyles and behaviors by evoking specific emotional responses. We are now piloting a measure of “media savvy” that addresses these two knowledge outcomes through a simple scale suitable for use with children and teens. We anticipate that users who find the site intrinsically pleasurable will play with the site enough times to develop a sense of mastery and competence, increasing knowledge. Figure 1 also shows secondary learning outcomes that include transfer of skills from the game environment to the home, awareness of media’s role in health promotion, and positive youth developmental outcomes.

Youth development researchers, taking advantage of interdisciplinary studies of adolescent health research and educational practice, have identified additional features of various kinds of youth learning environments that contribute to success. These include age appropriate monitoring, opportunities to belong to a group, positive social norms with clear identification of values, and opportunities for skill building (Hamilton & Hamilton, 2004). These perspectives inform the work of the online learning environment we have created and future research will examine how users perceive and respond to these elements in the context of program usage.

METACOGNITION AND IMMERSION IN ONLINE LEARNING

A sense of competence and mastery are believed to be intricately related to the pleasurable aspects of game environments. Compared to traditional, teacher-centered classrooms, online learning can simulate the processes of meaningful inquiry, presenting the user with increasing levels of challenge. According to James Gee (2003), users begin by mastering the mechanics of game play (what Gee calls the *internal design grammars*) then learn how to negotiate the context of play, coming gradually to recognize the design choices of its

developers, a process referred to as the *external design grammars*. Video games allow users to simulate, learn, and manage design grammars, learning how to learn in unfamiliar environments. Users develop strategies for managing complexity and ambiguity. In doing so, they gradually acquire increasing levels of awareness about the constructed nature of the game environment. Our observations of girls using My Pop Studio supports this theory, as girls seem to enjoy the challenge associated with mastering the mechanics of play and gradually gain a sense of the values and critical perspectives embedded in the game.

Media literacy depends on the ability to actively control and reflect upon the process of thinking used in various encounters with media messages. Monitoring comprehension, reflection on the learning process, and evaluating the progress towards the completion of a task are examples of metacognition (Solomon, 1998). However, it is not always easy to create a learning environment where children and young people apply metacognitive skills. When presented with a media message about alcohol or tobacco, for example, researchers have found that children ages 10 to 14 are able to critically analyze it, but *activation* of this ability does not occur spontaneously (Brucks, Armstrong, & Goldberg, 1988). Young people often can demonstrate media literacy skills but often these skills are not evident without explicit prompting.

As a result, some types of metacognitive prompting are incorporated into My Pop Studio. For example, when users select music to accompany various types of advertising, a girl guide explains the impact of that choice on the interpretation of a message by a specific target audience. There has been some debate among the development team regarding the extent to which explicit metacognitive prompting should be incorporated into the program, with a solid argument that users should be allowed to come to these realizations on their own in their own time. The developers are considering adding a

scaffolding element in the form of a character that “pops up” periodically to simply encourage users to critically reflect on their decisions. Additional elements that increase the variety and depth of the metacognitive prompting are also in development. External prompting may be necessary because of the powerful immersive pull exerted by the “play” component of the online learning environment, which may discourage distancing and critical analysis (Squire, 2005).

Of particular importance is the transfer or application of media literacy skills to the real-world media environment outside of the online game. Such transfer of learning is among the challenging of issues in the design and measurement of educational multimedia (Perkins & Salomon, 1988). Participating in an online community provides a means to cultivate transfer of learning. To examine this, we have begun to analyze the comments made by users on the eight different message boards of My Pop Studio. Future research will determine the extent to which users are making connections between the game and their real-life experiences. It will be important to assess the ability to transfer knowledge and skills from an online game environment to other settings, including home, family, and other media consumption experiences.

CONCLUSION

Classroom teachers find themselves on a steep learning curve in understanding the students of the 21st Century, whose level of online engagement is unlike that of previous generations. Rather than adopt the stance of the ostrich and ignore how children’s culture has been changed by technology, or simply accede to the problem of young people’s vulnerability to the world of mass media and popular culture, educators are beginning to adapt their own instructional practices to meet the needs of the multitasking, networked young people in their classrooms. It takes a confident teacher to

incorporate play into a learning environment. It can be unnerving for some educators to experience the loss of control that comes from genuine student engagement. And some critics fear that appealing to the media proficiencies of children and young people can “yield the short-term advantages of increased student engagement...[while] catering to those students who seek to complete work with a minimum of effort” (Barnes, Marateo, & Ferris, 2007, p. 1). Certainly there is much we don’t know about the appropriate uses of online creative play experiences as tools for learning in classroom settings. But these fears shouldn’t blind us to the very real educational potential inherent in well-designed online learning environments. For years, educators have been accommodating children’s learning styles by moving from the traditional lecture to discussion-based classes that allow for more individual expression. They have begun to incorporate mass media and popular culture into the curriculum in order to tap into student expertise and engagement. The use of online games as a means to promote critical thinking and metacognition is just another step forward in developing new approaches that enable girls and young women to thrive in a complex and rapidly changing cultural environment.

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Section IV

Digital Literacy: Educational Outlines