

Media Literacy Education at the University Level

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Abstract

In recent years, the media literacy education movement has developed to help individuals of all ages acquire the competencies necessary to fully participate in the modern world of media convergence. Yet media literacy education is not practiced uniformly at all educational levels. This study used a survey to compare the extent to which students are exposed to several basic elements of media literacy education at the high school and university levels. Results suggest that students are exposed to more course content related to media use and creation in high school, but more course content related to media analysis in college.

Keywords: Media literacy, media education, high school, college, university.

Each day, the average American watches over five hours of television (Nielsen, 2010a), and spends almost one and a half hours viewing Web pages (Nielsen, 2010b). Social networking has become the most popular online activity, with Facebook claiming more than 500 million users (Wortham, 2010) and Twitter claiming 105 million users (Chacksfield, 2010). The trend continues even when the connection is wireless, with the average teen sending or receiving a staggering 3,705 text messages per month (Nielsen, 2010c). It is clear that, as Lundby (2009) recently wrote, traditional media, new media, and mobile media are “everywhere, all embracing,” (p. 2) or as Duran, Yousman, Walsh, and Longshore (2008) suggested, “ubiquitous and unavoidable in the modern world” (p. 52).

In light of the media saturated nature of modern life, it has been widely acknowledged that today’s students need to develop new media-related competencies that will prepare them to live and participate in the world of the present and future (Avery, 2007; Jenkins, 2006, 2008). Accordingly, the very idea of what literacy entails has begun to evolve. While literacy has traditionally applied specifically to written or spoken applications (Brown, 1998), today the concept has come to involve a wide variety of contexts in which meaning creation can occur. These new multiple literacies include, among other things, media literacy.

Media literacy has many applications within many contexts (Hobbs, 1994). But at its core, one widely accepted definition suggests that media literacy involves possessing the ability to access, analyze, evaluate, and communicate messages in a wide variety of forms

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(Aufderheide, 1993). Building on this general definition, the National Association for Media Literacy Education developed a list of key ideas associated with accessing, analyzing, evaluating, and communicating media:

1. All media messages are “constructed.”
2. Each medium has different characteristics, strengths, and a unique “language” of construction.
3. Media messages are produced for particular purposes.
4. All media messages contain embedded values and points of view.
5. People use their individual skills, beliefs and experiences to construct their own meanings from media messages.
6. Media and media messages can influence beliefs, attitudes, values, behaviors, and the democratic process. (National Association, 2007)

Learning about such issues is especially important for individuals today. In addition to the practical fact that media literacy competencies are increasingly necessary for gainful employment, such competencies are also needed to understand, appreciate, and participate in social life in the modern world. As Jenkins (2006) highlighted, contemporary society is characterized by media convergence. This convergence involves an active culture comprised of engaged, participative consumers who create, share, and seek out new information related to activities such as forming affiliations (e.g. social networking), expression (e.g. producing new creative media), collaborative problem-solving (e.g. Wikipedia entries), and circulation (e.g. blogging). In order to fully participate in this culture of media convergence, individuals must simultaneously possess a mix of both analytical and creative competencies.

Such participation not only allows individuals to develop cross-media creativity (Deuze, 2007), but also encourages individuals to reimagine their role with media. In the process, this can also lead to the development of a more complicated and analytical relationship with media institutions and, as Jenkins (2008) wrote, “reconstruct their images of the ‘audience’ as co-creators rather than as (passive) consumers” (p. 7). In a world of media omnipresence, the importance of defining the nature of this relationship becomes especially important.

The movement to address such issues has gathered considerable momentum in recent decades. This has especially been the case at the K-12 level, where growth has been evidenced by increasing practical application and academic research.

First, there has been a significant growth in the number and scope of courses related to media literacy which are offered to students. This has especially been the case within secondary schools, where media literacy is often incorporated into elective or vocational classes. As Hobbs (2004) suggested, the growing popularity of this subject can be evidenced by the fact that there are over 10,000 journalism teachers and 1,500 media specialists in K-12 schools in the United States, and about half of the nearly 16,500 high schools in the nation have media production facilities (National Center, 2010).

Additionally, there has been a dramatic and important growth of scholarly research in the past two decades regarding media literacy education at the K-12 level. Such research has considered a broad array of programs designed to help primary and secondary students develop media literacy competencies. For instance, research at the K-12 level has considered the effectiveness of media literacy programs designed to teach about decoding media messages (Behson, 2002; Brown, 1991), analyzing advertisements (Austin & Johnson, 1997; Gonzales, Glik, Davoudi & Ang, 2004; Hindin, Contento & Gussow, 2004), understanding body-image issues related to media images (Fuler, Damica & Rodgers, 2004; Irving & Berel, 2001; Irving, DuPen & Berel, 1998; Levine, Smolak & Schermer, 1996; Piran, Levine & Irving, 2000; Wade, Davidson & O’Dea, 2003), interpreting television images of crime and violence (Rosenkoetter, Rosenkoetter, Ozretich & Acock, 2004; Scharrer, 2006; Vooijs & van der Voort, 1993), and identifying main ideas, purpose, target audience, and construction techniques (Hobbs & Frost, 2003).

However, while there is clearly a new emphasis on media literacy education at the K-12 level, evidence suggests that such competencies are often not built on or addressed further at the college level. Research into the extent to which media literacy is addressed at the university level is challenging for a variety of reasons, including the cross-disciplinary nature of media literacy objectives. However, what research has been conducted suggests just how limited media literacy education programs are in colleges and universities.

Mihailidis (2006) conducted an analysis of 48 journalism and mass communication programs in the U.S., and found that just 18 institutions included in the sample offered courses with the phrase “media literacy” in their title. The following year, Stuhlman & Silverblatt (2007) completed a survey of 1400 colleges and universities in the U.S. A total of 242 institutions participated in the survey, and just 158 reported offering media literacy courses (see Silverblatt, Baker, Tyner, & Stuhlman, 2002). Thus, while media literacy education may have a foothold within higher education in the US, its growth remains slow. Further, additional research in the area is needed. As Mihailidis (2008) recognized in an analysis of existent research related to media literacy in higher education, “More empirical evaluation of media literacy outcomes in the university is needed. Post-secondary media literacy has suffered from a substantial lack of empirical data . . .” (p. 11).

A new way to measure the growth of media literacy programs within higher education is to survey students to determine the extent to which they perceive that they are exposed to coursework which addresses media literacy competencies. Because competencies associated with media use, creation, or analysis may be addressed in courses not labeled specifically as “media literacy” courses, because some educators may reject to the use of a label, and “because it is difficult if not inadequate to attempt to tease out learning outcomes from syllabi and course overviews” (Mihailidis, 2008, p. 10), a student survey provides an alternative way to determine the extent to which such objectives are being addressed within higher education.

Such a consideration of college-level media literacy coursework should be conducted within the context of the entire educational system. University-level education does not happen in isolation, but rather constitutes a stage in the educational career of a student. As such, a comparison of what students learn in higher education should also consider students' learning experiences prior to entering college in order to determine the way in which their university-level experiences do, or do not, build on their prior learning.

Accordingly, this topic can be explored by considering the following research question: To what extent do students perceive being exposed to course content related to media literacy within high school and college?

Method

Participants

Participants were selected from a sample of students enrolled in courses at a four-year public university. Approval was obtained from the university's Institutional Review Board prior to sending out email invitations, and a total of 736 participants responded and participated in a Web-based survey. After eliminating data from participants who completed fewer than 80% of the questionnaire items or indicated they were graduate students, incoming first-year students who had not yet taken any college courses, or below the age of 18, a sample of 409 participants remained, accounting for 4.01% of the undergraduate student population at the university involved in the study. The 8.5% response rate is within acceptable limits for Web-based or email questionnaires (Schonlav, Fricker & Elliott, 2001). The mean age of participants was 21.14 years, 70.1% ($n = 284$) were female, and 29.9% ($n = 121$) were male.

Measures

Defined by Creswell (2003) as a method which "provides a quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population" (p. 153), the questionnaire has a long history in social scientific research and is an established means for gathering data among student populations and in educational settings (Accrediting Council, 2004; Parsons, 2007; Singleton & Straits, 1999). Accordingly, a 14-item Web-based questionnaire was designed to study student exposure to course content related to media literacy. Students were asked questions about their exposure to course competencies in both high school and college in order to provide some comparison between different levels in the educational system. The Web-based format was used to make participation both convenient and anonymous.

The media competencies addressed in this questionnaire focused on video and Web-based media. Such new media are particularly relevant for two primary reasons. First, such new media are increasingly important in the modern era of media convergence (Avery, 2007; Jenkins, 2006, 2008). Second, a focus on such new media is consistent with the attention that media literacy scholars and practitioners frequently place on media with a visual and multimodal nature (Jewitt, 2005; Sefton-Green, 2006) and digital and Web-based applications (Livingston, 2004).

The questionnaire consisted of demographic background questions, a rating scale which asked students to identify if they have been exposed to certain types of media education in high school and college, and one open ended response question. The open ended response question was included in order to provide participants the opportunity to elaborate on their experiences and provide additional information regarding the way in which they have learned about media over time. Gathering such qualitative data adds an important dimension to educational research and allows for the lived experiences of individuals to inform the researcher, and potentially provide additional, rich insights into a particular environment or culture which might have otherwise been overlooked.

To validate the measure, a trial study ($N = 22$) was conducted at a community college in southeastern Pennsylvania. After revising questions based on participant feedback to improve clarity, the measure was administered to study participants.

The Cronbach's alpha test was used to establish the reliability of the measure. Analysis during both the trial study and the study indicated that the measure had good internal consistency ($\alpha > .70$). Specifically, in the trial study, the measure had an alpha coefficient of .935, and in the actual study the measure had an alpha coefficient of .941.

Results

Data suggest that media literacy competencies were addressed more often in high school than in college (Table 1). Results might be divided into three categories of competencies associated with media literacy: learning about media use, learning about media creation, and learning about media analysis (Wulff, 1997).

Regarding the first category, questionnaire data demonstrated that students reported using video and Web-based media in high school (77.4%) more often than in college (73.4%). Specifically, more student participants reported taking courses in high school that involved video use (68.7%) and Web use (86.0%), than students reported taking courses in college that involved video use (61.9%) or Web use (84.8%).

The trend was more dramatic for the second category of media literacy competencies. When considering student exposure to courses that involved media creation, students reported creating video and Web-based media in high school (48.3%) more often than in college (31.1%). Specifically, students reported taking courses in high school that involved video creation (53.4%) or Web creation (43.1%) more frequently than students reported taking courses in college that involved video creation (29.0%) or Web creation (33.1%).

The third category considered learning about media analysis. Here the trend was reversed, and students reported taking fewer courses in high school regarding media analysis (43.4%) than in college (57.6%).

Thus, while 14.2% more students reported exposure to course content regarding media analysis in college than high school, 24.4% fewer students reported exposure to video

Table 1. Participant Exposure to Media Literacy Education in High School vs. College (%)

Item	High School	College	Difference
Video Use	68.7	61.9	-6.8
Web Use	86.0	84.8	-1.2
Video Creation	53.4	29.0	-24.4
Web Creation	43.1	33.1	-10.0
Media Analysis	43.4	57.6	+14.2

creation and 10.0% fewer students reported exposure to Web creation in college than in high school.

These data were backed up by comments provided by student participants when asked an open-response question. One first-year undeclared student, when writing about her experiences learning about media in college, compared it to her previous several years in high school. She wrote, “This is my first year I have not done anything yet.”

Another first-year finance student compared his experiences creating new media in high school and college, noting that, while high school involved creating a film documentary, course content related to new media in college has focused exclusively on PowerPoint. This student wrote, “During my senior year in High School, I had to create a documentary of my mission to Mississippi to help the victims of Hurricane Katrina. Also, for Spanish AP, and Entreprenuershop [sic] class -- I had to create powerpoints to present to our class about a certain topic. Now at [this university], I had to create a PowerPoint about Film Festival and present it about 40 students.”

To check the students’ perspective, the university’s course catalogue was also searched. While there was one graduate-level education course which focused on media literacy, there were no named “media literacy” courses listed in the university course catalogue. While some course titles appeared to deal with certain elements of media literacy, including “Television Production,” which deals with media creation, and “Interpreting Film,” which deals with media analysis, there was no indication that there were any structured courses – or series of courses – which were designed to comprehensively address all categories of media literacy competencies. The phrase “media literacy” was not included in any curriculum documents available on the university’s Web site.

In contrast, the public school district in the same municipality as the university considered in this study included media literacy as a central element of its “Literacy Mission” document, stating that students need to develop visual literacy, media literacy, multicultural literacy, and information literacy.

Discussion

Data demonstrate that student participants in this study are exposed to less media-related coursework in college than they are in high school. Further, data suggest that university level educators may place a special emphasis on the analytical dimension of media literacy while neglecting topics related to media creation and use.

While such results cannot be interpreted as suggesting that this same issue exists everywhere, such findings do suggest a concerning trend. Even if college is effectively meeting the goal of promoting critical thinking, it is difficult to imagine why it would be appropriate to ignore media use or creation. All three categories of competencies are interrelated: fully developing any one requires possessing other competencies as well. Furthermore, this trend is alarming because students who learn about media creation in high school may lose these competencies if they are not reinforced in college. Thus, despite the efforts of educators at the K-12 level to promote media literacy and engage students in the type of new media creation that will be important for the future, these competencies may be lost by students who are not encouraged to use them during their college years.

Such findings are not, however, entirely surprising. Rather, data gathered in this study confirm what other media scholars have suggested: the implementation of media literacy curricula in post-secondary higher education is still in its infancy stages (Aufderheide, 1993; Brown, 1991; Stuhlman & Silverblatt, 2007). As Wulff (1997) wrote: “In higher education the progress towards the incorporation of media literacy as an essential ability in higher education appears minimal” (p. 124).

There are several reasons why this may be the case. The slow growth of media literacy curricula in higher education may be because of: (1) confusion among faculty regarding what media literacy actually involves, (2) a general perception that students are “digital natives” who do not require media training, or (3) a lingering belief that media courses do not have a place within a liberal arts program of study.

First, faculty members may be confused regarding what media literacy involves in part because media literacy competencies may be addressed in a variety of disciplinary contexts in a decentralized fashion with little or no theoretical focus (Schmidt, 2011). Thus, because media literacy may be “a child known by many names” (Hobbs, 1994), with many applications within many contexts, it can be difficult to identify or coordinate coherent objectives.

Second, students are often overrated as being more media savvy than they actually are (Hargittai, 2010). As Kennedy, Judd, Churchward, Gray, and Krause (2007) noted,

It is assumed that the technological experiences of students are more or less homogeneous and that most, if not all, incoming university students are digital natives. Not only is it assumed that these students will have had broadly universal experiences, but that they will also have a sophisticated knowledge and understanding of information and communication technologies (ICTs). (p. 109)

However, research has demonstrated that college students are familiar only with certain everyday media technologies, and are significantly less comfortable with a broad array of other technological, media, and digital applications. Despite widespread perceptions to the contrary, the “digital native” generation is “native” only to a very limited subset of technologies.

For instance, Salaway, Katz, Caruso, Kvavik, and Nelson (2006) conducted a survey with 28,724 respondents across 96 colleges and universities and found that while college students are regularly involved in basic media use (such as sending email, conducting online research, downloading music or video files, or social networking), students only infrequently engage in more complicated activities which require a greater extent of media literacy competencies: about three quarters of students indicated that they had either minimal or no experience editing or creating Web pages, using audio or video editing software, or blogging.

Similarly, after publishing the results of a study for the Pew Internet and American Life Project, Lenhart, Ling, Campbell, and Purcell (2010) concluded: “Adolescents have been called ‘digital natives,’ but data suggests that they are both comfortable with new technologies, and yet not always as technically savvy as we collectively believe them to be.”

Third, despite the fact that some faculty “still cling to the notion that studying media and pop culture is not a serious or worthy academic pursuit” (Silverblatt et al., 2002, p. 5), coursework related to media literacy competencies can have a place in a liberal arts education. In addition to helping students develop the ability to better understand the world in which they live, media literacy courses often have goals which bridge the gap between the sometimes competing functions of providing both a liberal education and training students to gain marketable professional skills (Christ & Potter, 1998; Mihailidis, 2006).

Indeed, there are several potential reasons why media literacy education is avoided at the college level. Nevertheless, media literacy education can have a meaningful role in a university setting (Considine, 2004; Lipschultz & Hilt, 2007). In addition to the professional relevance of media literacy competencies, media literacy also helps to foster a set of abilities necessary for an engaged citizenry. As Masterman (1985) suggested, media education can play a critical role in fostering stronger democracies in which engaged citizens have the ability “to wield power, make rational decisions, become effective change-agents, and have an effective involvement with the media” (p. 13). Further, as Mihailidis (2008) suggested, college and university classes are often the last formal educational setting in which individuals can develop competencies related to both understanding and creating media, and consider an array of issues which can help them to participate in a

democracy shaped by the modern era of media convergence (Jenkins, 2006). Mihailidis wrote:

How do we understand our community as a reflection of media? What does it mean to be “informed”? Where and how can we find diverse, credible and independent information? What are the avenues for participation in the civic process? How can we appreciate media’s necessary role for civil society? Through such inquiries, media literacy stands to bring added value to existing media disciplines in higher education (p. 3).

Limitations

This study used a student self-report questionnaire to measure the extent to which media literacy competencies are addressed at the university level. This method was selected for several reasons. First, it made possible the comparison of student experiences in both high school and college. Second, this method allowed for the measurement of what is learned as opposed to what is supposed to be taught. Third, it allowed for the reporting of all instances where media literacy competencies were addressed, regardless of whether such activities were labeled as “media literacy” or not. However, there are limitations associated with this method. First, self-report questionnaires rely on the memory and honesty of participants. However, because this survey did not deal with personal or sensitive matters, such self-report bias should be minimal. Another limitation of this study is the sample size. While the study did consider a cross section of students enrolled in classes at a public university, the results may have limited generalizability due to socioeconomic or geographic factors associated with the high schools which students attended.

Directions for Future Research

Additional research into media literacy at the college level is needed. Specifically, such research can consider both faculty and student perceptions. First, studies of faculty perceptions can consider reasons why faculty members include, or avoid, media literacy topics in their classes. Such data would offer a fresh perspective, and provide first-hand accounts of the challenges that are faced by educators regarding media education.

Second, new research can consider university student media literacy competencies. While this study has shown that university students are only infrequently exposed to media literacy coursework, new research can consider if they are developing media competencies elsewhere. Having a better appreciation of student media competencies will allow educators to better understand which media literacy goals are most important to focus on. By continuing such research, and learning about the needs of university students, it will be possible to ensure that colleges and universities are successfully meeting the needs of the modern age.

Conclusion

There are real benefits associated with helping today's college students develop new media literacy competencies. However, the current trend to avoid comprehensive media literacy programs at the college level has serious implications for society. In a world characterized by digital media and visual culture, media literacy has developed an importance akin to that of traditional alphabetic literacy. Because of this, it is important that all members of society develop competencies related to media use, creation, and analysis in order to both participate in a democratic culture and compete in the modern workforce.

Yet, if this is to happen, then it must first be recognized that media literacy education is not the domain of K-12 educators alone. Instead, college-level educators in all disciplines do well to consider new ways to help develop this array of competencies among students. Suggestions on how to accomplish this have already been made (Blanchard & Christ, 1993; Tan, 1999), and some strides have been taken to explore and develop standards which could potentially help guide the implementation of multimodal assignments in courses across the college curriculum (Simons, Baird & Watts, 2010). Yet it is clear that there is no one-size-fits-all approach to addressing media literacy competencies for college students. While the optimal solution may vary from institution to institution, the need does not: today's college students require continual exposure to media-related coursework. If the educational system – at the primary, secondary, and university levels – is going to continue to adjust and adapt to the changing needs of modern life, it is important to consider new ways to adjust, adapt, and integrate new media better into existing curricula.

References

- Accrediting Council for Education in Journalism and Mass Communication. (2004). Accrediting standards. Retrieved February 27, 2009, from www.qu.edu.qa/offices/vpcao/documents/accreditation/ACEJMC_Accrediting_Standards.pdf
- Aufderheide, P. (1 Accrediting Council for Education in Journalism and Mass Communication. (2004). Accrediting standards. Retrieved February 27, 2009, from www.qu.edu.qa/offices/vpcao/documents/accreditation/ACEJMC_Accrediting_Standards.pdf
- Aufderheide, P. (1993). National leadership conference on media literacy. Conference report. Washington, DC: Aspen Institute.
- Austin, E. W., & Johnson, K. K. (1997). Effects of general and alcohol specific media literacy training in children: Decision making about alcohol. *Journal of Health Communication*, 2, 17-42.
- Avery, R. K., (2007). The Public Broadcasting Act of 1967: Looking ahead by looking back. *Critical Studies in Mass Communication*, 24(4), 358-364.
- Behson, J. (2002). Media literacy for high-risk children and youth. *Telemedium: The Journal of Media Literacy*, 48, 38-40.

- Blanchard, R. O., & Christ, W. (1993). *Media education and the liberal arts: A blueprint for the new professionalism*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Brown, J. (1991). *Television critical viewing skills education: Major media literacy projects in the United States and selected countries*. Hillsdale, NJ: Lawrence Erlbaum.
- Brown, J. (1998). Media literacy perspectives. *Journal of Communication*, 48(1), 44-57.
- Chacksfield, M. (2010). Twitter boasts of 105 million registered users. Tech Radar. Retrieved January 10, 2011 from <http://www.techradar.com/news/internet/twitter-boasts-of-105-million-registered-users-683663#ixzz1AeYhzdvw>
- Christ, W. G., & Potter, W. J. (1998). Media literacy, media education, and the academy. *Journal of Communication*, 48(1), 5-15.
- Considine, D. (2004). "If you build it, they will come:" Developing a graduate program in media literacy in a college of education. *American Behavioral Scientist*, 48, 97-107.
- Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches* (2nd ed.). Thousand Oaks, CA: Sage.
- Deuze, M. (2007). *Media work*. Cambridge: Polity Press.
- Duran, R. L., Yousman, B., Kaitlin, M. W., & Longshore, M. A. (2008). Holistic media education: An assessment of the effectiveness of a college course in media literacy. *Communication Quarterly*, 56(1), 49-68.
- Fuller, H.A., Damico, A.M., & Rodgers, S. (2004). Impact of a health and media literacy curriculum on fourth-grade girls: A qualitative study. *Journal of Research in Childhood Education*, 19, 66-78.
- Gonzales, R., Glik, D., Davoudi, M., & Ang, A. (2004). Impact of a health and media literacy curriculum on fourth-grade girls: A qualitative study. *Journal of Research in Childhood Education*, 19, 66-78.
- Hargittai, E. (2010). Digital na(t)ives? Variation in Internet skills and uses among members of the Net Generation. *Sociological Inquiry*, 80(1), 21-40.
- Hindin, T. J., Contento, J. R., & Gussow, J. D. (2004). A media literacy nutrition education curriculum for Head Start parents about the effects of television advertising on their children's food requests. *Journal of the American Dietetic Association*, 104, 192-197.
- Hobbs, R. (1994). Pedagogical issues in U.S. media education. *Communication Yearbook*, 17, 453-466.
- Hobbs, R. (1998). Media literacy in Massachusetts. In A. Hart (Ed.), *Teaching the media: International perspectives* (pp. 127-144). Mahwah, NJ: Lawrence Erlbaum.
- Hobbs, R. (2003). Understanding teachers' experiences with media literacy in the classroom. In B. Duncan & K. Tyner (Eds.), *Visions/Revisions: Moving forward with media education* (pp. 100-108). Madison, WI: National Telemedia Council.
- Hobbs, R., & Frost, R. (2003). Measuring the acquisition of media literacy skills. *Reading Research Quarterly*, 38, 330-356.
- Hobbs, R., (2004). A review of school-based initiatives in media literacy education. *The American Behavioral Scientist*, 48(1), 42-59.
- Irving, L. M., & Berel, S. R. (2001). Comparison of media-literacy programs to strengthen college women's resistance to media images. *Psychology of Women Quarterly*, 25, 103-111.

- Irving, L. M., DuPen, J., & Berel, S. R. (1998). A media literacy program for high school females. *Eating Disorders: The Journal of Treatment and Prevention*, 6, 119-131.
- Ito, M., Horst, H., Bittanti, M., Boyd, D., Herr-Stephenson, B., Lange, P. G., Pascoe, C. J., Robinson, L., Baumer, S., Cody, R., Mahendran, D., Martínez, K., Perkel, D., Sims, C., & Tripp, L. (2008). Living and learning with new media: Summary of findings from the digital youth. The John D. and Catherine T. MacArthur Foundation Reports on Digital Media and Learning. Retrieved March 27, 2009 from http://www.macfound.org/atf/cf/%7BB0386CE3-8B29-4162-8098-E466FB856794%7D/DML_ETHNOG_2PGR.PDF
- Jenkins, H. (2006). *Convergence culture: Where old and new media collide*. New York: New York University Press.
- Jenkins, H. (2008). Editorial. *Convergence*, 14(1), 5-9.
- Jewitt, C. (2005). *Technology, literacy, learning*. London: Taylor & Francis.
- Kennedy, G., Krause, K., Judd, T., Churchward, A., Gray, K. (2007). Digital natives + others = first year students. Boulder, CO: Educause. Retrieved March 29, 2009, from www.caudit.edu.au/educauseaustralia07/authors.papers/kennedy.ppt
- Lenhart, A., Ling, R., Campbell, S., Purcell, K. (2010). *Teens and Mobile Phones*. Washington, DC: Pew Internet and American Life Project. Retrieved September 2, 2010 from <http://pewinternet.org/Reports/2010/Teens-and-Mobile-Phones.aspx>
- Levine, M. P., Smolak, L., & Schermer, F. (1996). Media analysis and resistance by elementary school children in the primary prevention of eating disorders. *Eating Disorders: The Journal of Treatment and Prevention*, 4, 310-322.
- Lipschultz, J.H., & Hilt, M.L. (2007). Editors' note: The need for media and information literacy in graduate education. *Studies in Media & Information Literacy Education*, 7(1), 1-3.
- Livingston, S. (2004). Media literacy and the challenge of new information and communication technologies. *The Communication Review*, 7(1), 59-69.
- Lundby, K. (2009). *Mediatization as key*. In K. Lundby (Ed.), *Mediatization: Concept, Changes, Consequences*. New York: Peter Lang.
- Masterman, L. (1985). *Teaching the media*. London, UK: Routledge.
- Maughan, P.D. (2001). Assessing information literacy among undergraduates: A discussion of the literature and the University of California-Berkeley assessment experience. *College & Research Libraries*, 62(1), 71-85.
- Mihailidis, P. (2006). Media literacy in journalism/mass communication education: Can the United States learn from Sweden? *Journalism and Mass Communication Educator*, 60(4), 416-428.
- Mihailidis, P. (2008) Are we speaking the same language? Assessing the state of media literacy in U.S. higher education. *Studies in Media & Information Literacy Education*, 8(4), 1-14.
- National Association for Media Literacy Education. (2007). *Core principles of media literacy education in the United States*. Retrieved October 31, 2009, from <http://namle.net/uploads/r4/cE/r4cEZukacxNYaFFxIMONdQ/NAMLE-CPMLE-w-questions.pdf>
- National Center for Education Statistics. (2010). *Fast facts*. Retrieved September 5, 2010 from <http://nces.ed.gov/fastfacts/display.asp?id=84>

- Nielsen. (2010a). What consumers watch: Nielsen's Q1 2010 three screen report. Retrieved September 2, 2010 from http://blog.nielsen.com/nielsenwire/online_mobile/what-consumers-watch-nielsens-q1-2010-three-screen-report/
- Nielsen. (2010b). Nielsen provides topline U.S. web data for March 2010. Retrieved July 2, 2010 from http://blog.nielsen.com/nielsenwire/online_mobile/nielsen-provides-topline-u-s-web-data-for-march-2010/
- Nielsen. (2010c). Factsheet: The U.S. media universe. http://blog.nielsen.com/nielsenwire/online_mobile/factsheet-the-u-s-media-universe/
- Parsons, P. (2007). Indirect measures: Institutional data, surveys, interviews, and advisory boards. In W.G. Christ (Ed.), *Assessing media education: A resource handbook for educators and administrators*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Piran, N., Levine, M., & Irving, L. (2000). Go girls! Media literacy, activism, and advocacy project. *Healthy Weight Journal*, 14, 89-90.
- Rosenkoetter, L. I., Rosenkoetter, S. E., Ozretich, R. A., & Acock, A. C. (2004). Mitigating the harmful effects of violent television. *Journal of Applied Developmental Psychology*, 25, 25-47.
- Salaway, G., Katz, R. N., Caruso, J. B., Kvavik, R. B., & Nelson, M. R. (2006). *The ECAR study of undergraduate students and information technology, 2006*. Boulder, CO: Educause.
- Scharrer, E. (2006). "I noticed more violence:" The effects of a media literacy program on critical attitudes toward media violence. *Journal of Mass Media Ethics*, 21, 70-87.
- Schmidt H. C. (2011). Media literacy across the curriculum: How disciplinary perspectives affect media literacy education at the college level. Paper presented at the annual meeting of the Eastern Communication Association, Arlington, VA.
- Schonlav, M., Fricker, R. D., & Elliott, M. N. (2001). *Conducting research surveys via email and the Web*. Santa Monica, CA: Rand.
- Sefton-Green, J. (2006). Youth, technology, and media cultures. *Review of Research in Education*, 30, 279-306.
- Silverblatt, A., Baker, F., Tyner, K., Stuhlman, L. (2002). Media literacy in U.S. institutions of higher education. Retrieved June 14, 2008, from http://www.webster.edu/medialiteracy/survey/survey_Report.htm
- Simons, J., Baird, D., & Watts, C. (2010). *Incorporating media scholarship in the liberal arts*. Georgetown, TX: National Institute for Technology in Liberal Education. Retrieved September 3, 2010 from <http://academics.hamilton.edu/mediascholarship/sitePages/files/MediaScholarship-FinalReport6-30-09.pdf>
- Singleton, R. A., & Straits, B. C. (1999). *Approaches to Social Research* (3rd ed.). New York: Oxford University Press.
- Stuhlman, L., & Silverblatt, A. (2007). *Media Literacy in U.S. Institutions of Higher Education: Survey to Explore the Depth and Breadth of Media Literacy Education*. Retrieved August 9, 2011 from <http://www.webster.edu/medialiteracy/>
- Tan, A. S. (1999). The hybrid program. In W. Christ (Ed.), *Leadership in times of change: A handbook for communication and media administrators* (pp. 103-118). Mahwah, NJ: Lawrence Erlbaum Associates.

- Voojjs, M. W., & van der Voort, T. H. A. (1993). Learning about television violence: The impact of a critical Beijing curriculum on children's attitudinal judgments of crime series. *Journal of Research and Development in Education*, 26, 133-142.
- Wade, T. D., Davidson, S., & O'Dea, J. (2003). Preliminary controlled evaluation of a school-based media literacy program and self-esteem program for reducing eating disorder risk factors. *International Journal of Eating Disorders*, 33, 371-383.
- Wortham, J. (2010, July 21). Facebook tops 500 million users." *New York Times*. Retrieved September 2, 2010, <http://www.nytimes.com/2010/07/22/technology/22facebook.html>
- Wulff, S. (1997). Media literacy. In W. G. Christ (Ed.) *Media education assessment handbook* (pp. 123-142). Hillsdale, NJ: Lawrence Erlbaum Associates.