

INVITED ESSAY

The State of Media Literacy

W. James Potter

Media literacy is a term that means many different things to different people—scholars, educators, citizen activists, and the general public. This article reviews the variety of definitions and presents a synthesis of commonalities that most definitions of media literacy share. The review presents an overview of how media literacy has been treated as an issue in curriculum design within the institution of education, and then how it has been treated as an intervention by parents and researchers.

A relatively new topic, media literacy is popular not just among media scholars but among the general public of educators, consumer activists, and parents concerned about their children's risk of media exposures. "Media literacy" as a keyword in a Google search yields 765,000 hits, and using that same keyword in a narrower search within Google Scholar still yields a substantial literature of more than 18,700 articles. These articles were produced by scholars as well as concerned citizens from almost every part of the world. Almost all of the writing about media literacy was published in the past three decades. With mass media changing in the past two decades with digitization of information and convergence across channels of transmission, more scholars were attracted to this topic.

The vast size of this fast growing literature and the wide range of backgrounds and interests of the scholars writing about media literacy make it challenging to review the ideas expressed. This state-of-the-scholarship essay focuses on three general issues: definitions, curricula, and interventions. It is more concerned with raising questions than with arguing for definitive answers, and it is more divergent in its attraction to many different sub-topics and approaches than it is convergent toward a single definition or set of best practices.

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Definitions

The body of literature about media literacy is a large complex patchwork of ideas, and the variety of interpretation of media literacy can be confusing to scholars. (For a sampling of these different definitions, see Table 1.) It is as if each person writing about media literacy conceptualizes it with a different construction of definitional

Table 1
Sampling of Definitions of Media Literacy

Scholars

Adams and Hamm (2001) say that “media literacy may be thought of as the ability to create personal meaning from the visual and verbal symbols we take in every day from television, advertising, film, and digital media. It is more than inviting students to simply decode information. They must be critical thinkers who can understand and produce in the media culture swirling around them” (p. 33).

Anderson (1981): the “skillful collection, interpretation, testing and application of information regardless of medium or presentation for some purposeful action” (p. 22).

Barton and Hamilton (1998) [cited in Mackey, 2002, p. 5–6] define literacy as “primarily something people do; it is an activity, located in the space between thought and text. Literacy does not just reside in people’s heads as a set of skills to be learned, and it does not just reside on paper, captured as texts to be analysed. Like all human activity, literacy is essentially social, and it is located in the interaction between people” (p. 3).

Hobbs (2001): “Literacy is the ability to access, analyze, evaluate and communicate messages in a variety of forms” (p. 7). Hobbs says this definition suggests the following characteristics: inquiry based education, student-centered learning, problem solving in cooperative teams, alternatives to standardized testing, and integrated curriculum.

The National Leadership Conference on Media Literacy (Aufderheide, 1993, p. xx): “The ability to access, analyze, evaluate, and communicate messages in a variety of forms.”

Sholle and Denski (1995) argue that media literacy should be conceptualized within a critical pedagogy and thus “it must be conceived as a political, social and cultural practice” (p. 17).

Siverblatt and Eliceiri (1997) in their *Dictionary of Media Literacy* define media literacy as “a critical-thinking skill that enables audiences to decipher the information that they receive through the channels of mass communications and empowers them to develop independent judgments about media content” (p. 48).

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Table 1
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Citizen Action Groups

- Action Coalition for Media Education: Encourage critical thinking and free expression, examine the corporate media system, and inspire active participation in society. (www.admecoalition.org/about.html)
- Alliance for a Media Literate America: Critical inquiry, learning, and skill-building rather than on media-bashing and blame. (www.amlainfo.org)
- American Psychiatric Association: Rather than allow the media to promote unchallenged the quick fix of violent solutions, conflict resolution skills involving patience and negotiation should be taught. (www.psych.org/public_infor/media_violence/cfm)
- Center for Media Literacy: "A framework for accessing, analyzing, evaluating and creating media. The development of critical thinking and production skills needed to live fully in the 21st century media culture." Also defined as "the ability to communicate competently in all media forms, print and electronic, as well as to access, understand, and analyze and evaluate the powerful images, words and sounds that make up our contemporary mass media culture." (www.medialit.org/pd_services.html#crash_course)
- Children Now: Media literacy is a way to foster critical viewing skills in young viewers. (www.childrennow.org/television/tv%2Das%2Da%2Dtool.htm)
- Citizens for Media Literacy: How to think critically about TV and advertising. (www.main.nc.us/cml/)
- Coalition for Quality Children's Media (KIDS FIRST!): Recognize programs that are intellectually and creatively stimulating; that break down racial, gender, handicapped and cultural boundaries; and that are produced with high technical and artistic standards. (www.kidsfirst.org/kidsfirst/html/whatcq.htm)
- Media Awareness Network: Critical thinking skills to "read" all the messages that are informing, entertaining, and selling to them every day. (www.media-awareness.ca/eng)
- Media Education Foundation: The tools and vocabulary needed to re-examine media images and their influence on how we think about our personal, political, economic and cultural worlds. (www.mediaed.org/index_html)
- Media Watch: Challenge abusive stereotypes and other biased images commonly found in the media. (www.mediawatch.com/)
- National Communication Association: A media literate person understands how words, images, and sounds influence the way meanings are created and shared in contemporary society in ways that are both subtle and profound. A media literate person is equipped to assign value, worth and meaning to media use and media messages. (www.natcom.org/instruction/k-12/standards.pdf)
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Table 1
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Citizen Action Groups

National Leadership Conference on Media: The ability to access, analyze, evaluate, and communicate messages in a wide variety of forms literacy. (Aufderheide, 1993).

The National Telemedia Council: The ability to choose, to understand—within the context of content, form/style, impact, industry and production—to question, to evaluate, to create and/or produce and to respond thoughtfully to the media we consume. It is mindful viewing, reflective judgment” (Considine, 1995, p. 1). Also, the ability to access, analyze, evaluate and create information in a variety of print and non-print media formats. (www.danenet.wictp.org/ntc/NTC.HTM)

New Mexico Media Literacy Project: “The ability to access, analyze, evaluate and create messages in various media (Moody, 1996, p. 113). (www.nmmlp.org/nmmlp.htm)

Northwest Media Literacy Project: The ability to critically assess media message in order to understand their impact on us, our communities, our society and our planet. It is also a movement to raise awareness of media and their influence. (www.mediathink.org/aboutML.htm)

Office of National Drug Control Policy: “To a) recognize how media messages influence us (e.g., develop a vocabulary to recognize manipulative techniques, develop skills to protect oneself against messages about drugs or negative lifestyle choice that are embedded in the media), to b) develop critical thinking (e.g., know that messages are constructed by people with points of view and commercial interests, uncover value messages inherent in media, evaluate information for accuracy and reliability), to foster self-esteem (e.g., creatively produce satisfying and constructive messages). (www.nytimes.com/learning/teachers/NIE/medialiteracy/intro.pdf)

elements. Some scholars argue that media literacy should be treated primarily as a critical cultural issue (Alvarado & Boyd-Barrett, 1992), as a set of pedagogical tools for elementary school teachers (Houk & Bogart, 1974), suggestions for parents (DeGaetano, & Bander, 1996; Kelly, 1983), McLuhanesque speculation (Gordon, 1971), or as a topic of scholarly inquiry from a physiological (Messaris, 1994), cognitive (Sinatra, 1986), or anthropological (Scribner & Cole, 1981) tradition. Some writers focus primarily on one culture, such as American culture (Manley-Casimer & Luke, 1987; Ploghoff & Anderson, 1981), British culture (Buckingham, 1990; Masterman, 1985), Chilean culture (Freire, 1985), several countries and/or cultures (Brown, 1991; Maddison, 1971, Scheuneman, 1996; Von Feilitzen & Carlsson, 2003), and even the creation of its own culture (Lopez, 2008). It is a term applied to the study of textual interpretation (Buckingham, 1998; Meyrowitz, 1998; Zettl, 1998), context

and ideology (Lewis and Jhally, 1998), and audience (Buckingham, 1998). The term is also used as synonymous with or part of media education (Sholle & Denski, 1994).

Several attempts have been made to obtain a concise definition of media literacy. In 1992, the "National Leadership Conference on Media Literacy" convention attempted to construct a single definition of media literacy as "the ability to access, analyze, evaluate and communicate messages in a variety of forms" (Aufderheide, 1993). Several years later, the National Communication Association invited members interested in media literacy to construct a definition in the form of a communication competency. Their definition of a media literate person is one who "understands how words, images, and sounds influence the way meanings are created and shared in contemporary society in ways that are both subtle and profound. A media literate person is equipped to assign value, worth and meaning to media use and media messages" (www.natcom.org). However, neither of these definitions attracted a consensus, and in 1998, Zettl complained that "the plethora of available articles, books, classroom materials, and information on the internet dealing with media literacy does not seem to help very much in answering the question, 'What is media literacy?'" (1998, p. 81). And now in 2010, there still appears to be no consensus as scholars continue to add and subtract ideas from other definitions when constructing their own, and continue to struggle with the question of "What is media literacy?" While no movement toward a consensus definition is evident, one can analyze the many definitions along key issues to identify common themes.

Key Issues

There are three major issues that confront scholars who consider the idea of media literacy. The first of these issues is: What are the media? In terms of media literacy, we must clarify which media we mean. Some scholars focus on only one medium (such as television or computers), some on a type of media (print or pictorial), while others are very broad and include all forms of information sharing. Some scholars regard media literacy primarily as print (Maddison, 1971; Scribner & Cole, 1981; Sinatra, 1986), television (Goodwin & Whannel, 1990), visual media of still and moving pictures (Messaris, 1994; Metallinos, 1994), computers (Adams & Hamm, 2001; Gardiner, 1997), multimedia (Buckingham, 1993b), digital media (Hartley, 2010; Tyner, 1998), and all technologies that deliver information (Hobbs, 1998; New London Group, 1996; Potter, 2010; Silverblatt, 1995). In the last decade or so, convergence across all mass media rendered the distinctions between mass media as relatively unimportant compared to the similarities (Jenkins, 2006; Nayar, 2010). Therefore there is a growing awareness that media literacy should be concerned with all forms of media.

The second issue is: What do we mean by literacy? Again there is a wide range of thinking. Some regard media literacy primarily in terms of increasing skills (Adams & Hamm, 2001; Alvermann, Moon, & Hagood, 1999; Anderson, 1981; Brown, 1998; Mackey, 2007; Messaris, 1998; Sholle & Denski, 1995; Silverblatt, Ferry, & Finan, 1999). Other scholars focus on building knowledge (Meyrowitz, 1998; Pattison,

1982; Silverblatt, 1995; Zettl, 1998). Still other scholars regard media literacy as an activity (Barton & Hamilton, 1998) or as a political, social, and cultural practice (Sholle & Denski, 1995). Some scholars take a very broad perspective and write about media literacy as an activity that requires both developing skills and building knowledge (Bazalgette, 1997; Hobbs, 1996; Potter, 2004).

Furthermore, scholars also exhibit a variety of positions concerning which skills are important and which sets of knowledge contribute to media literacy. The most frequently mentioned skill is critical thinking (see Adams & Hamm, 2001; Silverblatt & Eliceiri, 1997), although this term seems to be used as an umbrella idea for an unspecified conglomeration of mental processes by which people challenge media messages. While articulations of specific skills and kinds of knowledge are rare, there are a few examples. For example, Lopez (2008) calls for a shifting of brain activity from left brain to right brain activities. Potter (2004, 2010) provides a theoretical scheme based on a set of seven specific skills (analysis, evaluation, grouping, induction, deduction, synthesis, and abstraction) and five sets of knowledge structures (media effects, media content, media industries, real world, and the self).

The third issue is: What should be the purpose of media literacy? Most writers who address this question say the purpose is to improve the lives of individuals in some way, usually by giving them more control over how the media messages will affect them (Anderson, 1983; Buckingham, 1993a; Hobbs, 1996; Lewis & Jhally, 1998; Rafferty, 1999). Many also talk about the purpose of media literacy in an educational curriculum (Aufderheide, 1997; Brown, 1998; Buckingham, 1993b; Masterman, 1985, 1997, 1998), and some argue that media literacy has a purpose in social activism (Anderson, 1983; Buckingham, 1998; Lewis & Jhally, 1998). For a more complete analysis of the range of ideas in the definitions, see Potter (2004, 2009).

It is interesting to note that almost all of the ideas presented complement one another, that is, there is little evidence of different groups of scholars arguing about which group has the best definition. There seems to be a rather general agreement about some core ideas and a general acceptance of a great many peripheral ideas, such that the differences across definitions seem to be traceable more to what each scholar chooses to emphasize in a particular definition. To illustrate this point, scholars who write about media literacy as a way of dealing with television messages do not seem to argue that other media messages should also not be considered; instead they simply choose to focus their writing only on television. Likewise, scholars who emphasize the importance of developing skills and do not say much about the importance of knowledge are not arguing that knowledge acquisition is not relevant to media literacy; instead they focus on the task of making the case for the importance of skills.

Common Themes

Given the complementary nature of ideas, it is possible to identify four common themes where there is general agreement across the writings about media literacy.

Agreeing with any one of these four themes does not preclude agreeing with any of the others.

1. *The mass media have the potential to exert a wide range of potentially negative effects on individuals.* A corollary of this idea is that the media also offer a range of potentially positive effects.
2. *The purpose of media literacy is to help people to protect themselves from the potentially negative effects.* The purpose of becoming more media literate is to gain greater control over influences in one's life, particularly the constant influence from the mass media. This is not to say that all media literacy scholars believe the media exert a powerful effect on individuals. However, there seems to be a consensus that even weak and subtle media influences are important to consider, given the pervasive nature of media influence throughout our culture along with the high rates of exposure of all people to various forms of media habitually over the course of one's life.

There is some disagreement among scholars about *how* to help people become more media literate. One group of scholars favors a targeted training type approach where a particular vulnerability to media messages is identified and an intervention is designed. This intervention is used to train certain groups of people (typically children) to identify the faulty or misleading nature of particular messages, followed by social scientific methods used to measure the effectiveness of these interventions. Another type of scholar appears to favor more of a humanistic approach. These scholars call for the incorporation of media literacy education within the framework of liberal arts that exposes people to a wide range of ideas about humanity and contextualizes media influence within broad cultural processes. They prefer the use of qualitative methods to examine the value of media literacy.

3. *Media literacy must be developed.* No one is born media literate. Media literacy must be developed, and this development requires effort from each individual as well as guidance from experts. The development also is a long term process that never ends, that is, no one ever reaches a point of total, complete media literacy. Skills can always be more highly developed; if they are not continually improved they will atrophy. Also, the process of knowledge acquisition is never finished, because the media and the form of their messages are constantly changing.
4. *Media literacy is multi-dimensional.* The media constantly influence people in many ways—cognitively, attitudinally, emotionally, physiologically, behaviorally—both directly as individuals as well as indirectly through other people, institutions, and culture. Therefore, increasing one's media literacy requires development along several different dimensions. Typically scholars focused their attention on one of four dimensions: cognitive, emotional, aesthetic, and moral. Each of these dimensions was thought to be independent from one another, that is, a person could improve on one dimension but not necessarily on others. However, all are important. For example, some people might be

highly developed along a cognitive dimension such that they would be highly analytical when they watch a movie and would have the ability to quote facts about the history of the movie's genre, the director's point of view, and the underlying theme. But if they are not developed emotionally, they cannot get swept away with enjoyable emotions and avoid being harmed by negative emotions. If they are not developed aesthetically, they cannot appreciate the enormous range of talent exhibited across artists (actors, directors, editors, composers, customers, etc.). And if they are not developed morally, they are not engaged in the dilemmas inherent in many stories beyond a superficial level.

Curricula

Many media literacy scholars are concerned with the role of education. Scholars have offered many suggestions about where they think media literacy should be taught, how it should be taught, and how this type of learning should be evaluated.

This section outlines the literature that deals with the role of media literacy within the institution of education. **Key writings in the literature that offer prescriptions for designing media literacy curricula and courses will be highlighted. This section concludes with a presentation of studies that evaluate broad scale media literacy programs.**

Role of Media Literacy in Education

What is (or should be) the role of media literacy in education? Much was written on this topic by both European (Alvarado, Buscombe, & Collins, 1993; Buckingham, 2003; Masterman, 1985) and American scholars (Hobbs & Jensen, 2009; Jenkins, Purushotma, Robison, & Weigel, 2006; Kubey, 1998; Sholle & Denski, 1994).

As for the European tradition, Alvarado et al., (1993) edited an anthology of 20 essays originally published in the journal *Screen Education* during the 1970s and early 1980s. These essays, written largely by European humanistic scholars critical of TV and film, provide a valuable historical perspective on how cultural studies influenced thinking about educational theory and practice. Also, Buckingham (2003) provided a good survey of the field of media education, primarily in Europe, and focused attention on key debates and controversies, such as definitions for the field, types of literacies, and the role of criticism, then lays out some guidelines for the future of media education.

As for the American tradition, Kubey (1998) contrasted the lack of progress in integrating media literacy education into public education in the United States with the success of doing so in other countries. Kubey presented a convincing explanation of this difference with political, economic, historic, and cultural factors. Hobbs

and Jensen (2009) updated Kubey's work by highlighting the central characteristics of media literacy programs as they evolved over time in the United States. They provided a fascinating exploration of the future of media literacy around two issues: (1) media literacy's relationship to the integration of educational technology into the K-12 curriculum, and (2) the relationship between media literacy education and the humanities, arts, and sciences.

Some scholars wrote more prescriptively than descriptively about the role of media literacy within educational institutions. Masterman's *Teaching the Media* (1985) is still a classic because of the way it lays out an argument about why media education is so important and presents a vision about how to foster greater media literacy in students when teaching about the media. More recently, Jenkins and colleagues (2006) advanced a compelling argument for why American schools and after-school programs should devote more attention to fostering literacy about the new media that generated a major expansion of participatory cultures. They laid out a set of cultural competencies and social skills that young people need in the new media landscape.

Prescriptions for Curriculum and Course Design

There is no consensus about what is the best media literacy curriculum, nor is there one scholar with a dominant vision of what should be a media literacy curriculum. The reason for this is that there can be no single curriculum that meets the goals of all the kinds of schools, across all grade levels, all sizes of schools, and all countries. Instead, we are fortunate that a wide variety of scholars provided a range of interesting suggestions for media literacy curricula. Some of these focus on curriculum attempts in one country, such as Australia (Healy, 2008), or the United States (Christ, 2006; Semali, 2000), while others present a global treatment (Cole & Pullen, 2010; Kubey & Ruben, 2001).

There is a growing literature to help teachers who want to develop a course or even a single presentation on media literacy. Some of these writings offer practical advice (Hobbs, 2007; Mackey, 2007; Unsworth, 2001) while others are more theoretical and scholarly in their approach (Frechette, 2002; Johnson, 2001; McLaren, Hammer, Sholle, & Reilly, 1995; Tyner, 2009). There are also edited volumes that offer chapters of both kinds (Kubey & Ruben, 2001; Metallinos, 1994).

Evaluations and Case Studies

Some broad scale studies provide an in-depth examination of various facets of media literacy either over a long period of time or across many different types of audiences and countries. For example, Hobbs (2007) describes how the English faculty at a New Hampshire high school developed a media literacy curriculum. Livingstone edited two books on this topic. One of these contains 14 chapters

that describe how children in 12 European countries use the new media and how those exposures affect them, their family life, and their relationships with their peers (Livingstone & Bovill, 2001), while the other reports a large number of empirical media literacy studies conducted by 60 researchers across 21 European countries associated with the EU Kids Online Project (Livingstone & Haddon, 2009). These research studies document who goes online, to what they expose themselves, and the risks of those exposures.

Two other examples of large scale projects are noteworthy. Mackey (2007) describes an 18-month long project designed to study how a group of boys and girls (ages 10 to 14) made sense of narratives in a variety of formats, including print, electronic book, video, DVD, computer game, and CD-ROM. Watkins (2009) interviewed Americans for 4 years then wrote a book documenting how America's youth moved away from traditional one-way media to the newer interactive media. The author includes an intriguing chapter that rethinks the idea of Internet addiction.

Interventions

Much of the mass media literature addresses the importance of interventions, that is, specific strategies designed to help people, especially children, protect themselves from potentially harmful effects from mass media exposures. This section articulates what constitutes a media literacy intervention, followed by a review of the literature on natural interventions, which were developed by parents in their everyday lives, and constructed interventions, which were developed by experts and formally tested for effectiveness.

What Makes Media Literacy Intervention?

The studies in media literacy intervention literature share important commonalities. These include three assumptions that underlie these studies, as well as four design characteristics.

Studies in this literature assume that the mass media continually exert all kinds of direct and indirect influences on individuals and society. These influences can immediately trigger effects—cognitively, attitudinally, affectively, physiologically, and/or behaviorally—during an exposure to a media message or gradually build up over time by shaping and reinforcing knowledge structures, beliefs, and habits. A second assumption is that many of these naturally occurring effects are negative, that is, are harmful to individuals, or at least not useful to the individual in a positive or constructive way. Third, it is assumed that one can construct interventions that help people avoid these negative effects in their everyday lives. Building on these assumptions, the purpose of media literacy interventions is to target a potential negative media effect and to either inoculate people against such an

effect occurring or to counter the already existing negative effect. Thus interventions are designed for the avoidance or the removal of a naturally occurring negative effect that results wholly or in part from the influence of messages from the mass media.

Studies in media literacy effects literature each exhibit four design characteristics. They have a clearly identified agent, target, treatment, and expected outcome (Potter & Byrne, 2007). The agent is the person or vehicle delivering the intervention. Usually, this is a researcher, teacher, or parent (e.g., Huessman, Eron, Klein, Brice, & Fischer, 1983; Nathanson, 2004; Valkenberg, Krcmar, Peeters, & Marseille, 1999), but media literacy interventions also are delivered via media messages such as films (Linz, Fuson, & Donnerstein, 1990). The target is the person receiving the media literacy intervention. The most common targets of media literacy intervention studies are children, but some scholars argue for the need to target special groups of adults, such as parents, teachers, and doctors (Rich & Bar-on, 2001). The treatment is the content and design of the intervention. For example, some scholars and practitioners focus on teaching participants media production skills (Banerjee & Greene, 2006) while others attempt to build a set of critical viewing skills that can change a viewer's perspective during exposure (Potter, 2004; Vande Berg, Wenner, & Gronbeck, 2004). Finally, the expected outcome is some aspect of the target that should change as a result of the intervention. Media literacy interventions attempted to alter a person's attitudes, emotions, behaviors, and cognitions that result from media exposure. Previous reviews detailed these aspects of interventions (see Cantor & Wilson, 2003; Potter & Byrne, 2007).

Natural Interventions in Use

There is a relatively small body of literature that documents interventions typically used by parents on their children. These interventions are motivated, planned, and delivered by people in the target's everyday lives, not usually by scholars or researchers. The agents of these interventions need not be experts; to the contrary, they are typically parents or caregivers who are concerned about protecting their targets—typically children. Also, the interventions themselves often are not constructed from theory or an awareness of any particulars from the media effects literature; instead, they are constructed out of everyday experience that suggests what might be useful in protecting targets. With this type of study, researchers observe naturally occurring interventions in the targets' own environments. Sometimes these "observations" are not made by the researchers but gathered through a survey questionnaire; in this case, the observations are those of the targets themselves or of their agents (typically parents and teachers).

A popular way to organize all the natural interventions was to use a scheme developed by Valkenburg and colleagues (1999), who argued that there were three types of interventions, which they labeled restrictive intervention, social co-viewing, and instructional intervention.

Restrictive Intervention.

Restrictive intervention occurs when an authority figure, such as a parent, prohibits the target from using certain media or sets rules that limit exposure to media (see Nathanson, 2001a, for a review of this research).

Research showed mixed support for the effectiveness of the restrictive type of intervention. For example, Desmond, Singer, Singer, Calam, and Colimore (1985) argued that it was an useful technique. In contrast, Nathanson (2002) observed that restrictive intervention was related to less positive attitudes toward parents, more positive attitudes toward the content, and more viewing of the content with friends. This appears to be the opposite of what parents intend as an outcome of using this type of intervention. Nathanson wrote, "Unfortunately, parents' good intentions in using restrictive intervention may actually contribute to the harmful outcomes parents wished to prevent in the first place" (p. 221).

Social Co-viewing.

Social co-viewing is a technique in which parents and children simply watch television together. Surveys found this intervention to be relatively rare. For example, Lawrence and Wozniak (1989) found that most television viewing is solitary and that when children view with a family member, it is usually a sibling. Also, when co-viewing with parents and children occurs, it is usually with younger children who are likely to watch shows the adults also like (Dorr, Kovaric, & Doubleday, 1989). Among children 7 and older, 95% never watch TV with their parents, and even among children 2 to 7, 81% never watch with their parents (Rideout, Foehr, Roberts, & Brodie, 1999).

Co-viewing, like restrictive intervention, has mixed research results. Co-viewing was found to be associated with negative outcomes such as believing that television characters are like real-world people (Messaris & Kerr, 1984), and learning aggression from violent television (Nathanson, 1999). However, co-viewing was shown to have positive outcomes such as increased learning of educational content (Salomon, 1977).

Instructional Intervention.

The term "instructional intervention" refers to a variety of verbal techniques employed by agents when viewing with targets. For example, Messaris (1982) explained that parents who use instructional intervention typically discuss the reality status of programs, make critical comments about the behavior of characters their children witness on television, and provide supplemental information about topics introduced by the television messages.

Instructional intervention, like co-viewing, is relatively rare. Several studies observed that there is generally no dialogue when a parent and child view together (Austin, 1993a, 1993b; Himmelweit, Oppenheim, & Vince, 1958). Likewise, a Gallup poll indicated that when parents and a child view television and offensive

material comes on the screen, parents are seven times more likely to ignore it by quickly changing the channel than to discuss the offending content with their child (Austin, 1993a, 1993b).

Instructional intervention techniques were found to be useful in helping children reduce unwanted effects from viewing television (Austin, 1993a, 1993b; Nathanson & Cantor, 2000; Nathanson & Yang, 2003). There also is evidence that instructional intervention works better than punitive techniques (Desmond et al., 1985; Singer, Singer, & Rapaczynski, 1984). Children who experience instructional intervention in general are less vulnerable to negative effects of all kinds—cognitive (Austin, 1993a, 1993b; Desmond et al., 1985), attitudinal (Austin, 1993a; Nathanson & Botta, 2003), affective (Cantor, 2001; Hoffner, 1997), and behavioral (Nathanson, 1999; Nathanson & Cantor, 2000; Reid, 1979).

The effectiveness of instructional interventions was found to vary by the agents of instruction. For example, Nathanson (2001a) reported that instructional mediation produced stronger effects when delivered by peers than by parents; however, these effects were negative rather than positive. Nathanson found that peer mediation led to more positive orientations toward antisocial television, which in turn led to greater aggression. Of course, the intention of parental mediation is to inhibit negative media effects, but peer mediation facilitates harmful outcomes.

The success of intervention techniques also is tied to the type of person who is the target. For example, Nathanson and Yang (2003) demonstrate that certain techniques work well with younger children (5 to 8). Also, some techniques work better with one gender (Nathanson & Cantor, 2000).

Finally, the effectiveness of instructional interventions varies by the particular techniques used. Interventions work better when parents are more active during television viewing (Austin, 1993a, 1993b) and when they use both non-cognitive as well as cognitive strategies (Cantor, 2001). Role modeling was found to be a successful technique. For example, Austin and Meili (1995) found that children use their emotion and logic to develop expectations about alcohol use in the real world when they see alcohol used by characters on television. When children rely on both real life and televised sources of information, they are more likely to develop skepticism about television portrayals of alcohol use when they rely on parents as primary sources of information and behavioral modeling.

Constructed Interventions

Constructed intervention refers to special treatments designed by researchers to increase some aspect of media literacy (usually acquisition of some new knowledge or improvement of some media exposure skill) among targets. The application of these interventions is followed by measuring the target's level of media literacy to determine if the intervention achieved its goal. This typically requires an experimental design. However, assessments of how media literacy skills influence media effects also occur through correlational studies (Nathanson, 1999), focus groups

(Cohen, 2002), qualitative interviews (Moore, DeChillo, Nicholson, Genovese, & Sladen, 2000), and participant observations (Bragg, 2002).

It might appear at first that all the studies in the large media effects literature (estimated to be perhaps as large as 10,000 studies [Potter & Riddle, 2007]) might qualify as tests of media literacy interventions, however, there is a difference. While almost all of this literature on media effects tests for the effect of some sort of media intervention (exposure to certain media and messages), those interventions are designed to trigger an effect, whereas media literacy interventions typically are designed to reduce triggering those effects.

While this body of literature that tests media literacy interventions is relatively small, it is growing. It can be organized into several categories according to media content: violence, sexual portrayals, health, stereotypes, and fear inducing content.

Violence.

The content area that has enjoyed the most empirical attention is media violence, with more than 25 published assessments of interventions attempting to lower aggressive responses to violent media messages (see Cantor & Wilson, 2003, for a detailed review). Some of these interventions are more successful than others, and several studies documented a “boomerang effect,” or an increase in the aggressive attitudes of individuals who participated in certain interventions (Byrne, 2009; Byrne & Hart, 2009; Cantor & Wilson, 2003).

Sexual Content.

While the general media effects literature lists many studies that examine the influence of sexual messages on audiences (e.g., Brown, 2000; Durham, 1999; Merskin, 2004), few of these studies investigated the effect of media literacy interventions on critical viewing skills. Perhaps this is because most media literacy efforts tend to be biased toward targeting children and adolescents instead of adults (Potter, 2004), and challenges arise when investigators undertake studies about sexuality and related behaviors with children. However, there are some very useful tests of interventions with sexual messages (see Linz et al., 1990; Nathanson, 2001b, 2002; Pinkleton, Austin, Cohen, Chen, & Fitzgerald, 2008). For example, Pinkleton and colleagues tested a teen-led media literacy intervention that was a 5-lesson media literacy curriculum targeted primarily to middle school students. Their intervention was labeled a success, because they found that participants who experienced the intervention were less likely to overestimate sexual activity among teens, more likely to think they could delay sexual activity, less likely to expect social benefits from sexual activity, more aware of myths about sex, and less likely to consider sexual media imagery desirable compared to participants in a control group.

Health.

A popular topic for researchers testing media literacy interventions was health. Content analyses of media content show that entertainment and advertising mes-

sages glamorize certain portrayals that may lead people to undertake unhealthy behaviors such as smoking and eating disorders. Media literacy interventions were found to be successful to combat the media's glamorization of smoking (Primack, Fine, Yang, Wickett, & Zickmund, 2009). Also, interventions were found to be successful in helping adolescents and young adults better process the images of models with "perfect" bodies and thus avoid developing eating disorders (Choma, Foster, & Radford, 2007; Evans et al., 2006; Herzog & Eddy, 2009; Levine & Murnen, 2009; Nathanson & Botta, 2003; Raich, Portell, & Peláez-Fernández, 2010; Richardson, Paxton, & Thomson, 2009; Ridolfi & Vander Wal, 2008; Wilksch, Durbridge, & Wade, 2008; Wilksch & Wade, 2009).

Scholars were especially interested in testing interventions to prevent children and adolescents from developing unhealthy attitudes and behaviors resulting from exposure to advertisements (Austin, & Johnson, 1997; Banerjee & Greene, 2006; Elliot et al., 2006; Pinkleton, Austin, Cohen, Miller, & Fitzgerald, 2007). Unfortunately, interventions in the context of health and advertising can result in a similarly ineffective pattern as those intending to reduce media-induced violence (Irving & Berel, 2001; McVey & Davis, 2002; Neumark-Sztainer, Sherwood, Collier, & Hannan, 2000).

Stereotypes.

Researchers designed and tested interventions that targeted media-induced stereotypes. These interventions focused on reducing viewers' stereotypes relating to age (Cohen, 2002), gender roles (Nathanson, Wilson, McGee, & Sebastian, 2002; Steinke et al., 2007), and race (Ramasubramanian & Oliver, 2007). The findings were mixed, with some studies resulting in less positive evaluations of stereotypical content and less acceptance of stereotypical attitudes (Nathanson et al., 2002), whereas other interventions failed to achieve this goal (Steinke et al., 2007) or even backfired (Ramasubramanian & Oliver, 2007).

Fear Inducing Content.

Several studies found that media literacy type interventions were successful in helping children process images in scary programs and thus reduce their fear reactions (Bar-on et al., 2001; Cantor & Wilson, 1984; Slone & Shoshani, 2006). Also, some observed that while viewers of news programs sometimes experience anxiety and fear, the use of media literacy skills may help reduce these negative emotions (Comer, Furr, Beidas, Weiner, & Kendall, 2008; Olson & Pollard, 2004; Slone & Shoshani, 2006; Thoman & Jolls, 2004), as well as help viewers get more positive experiences with the news such as fostering political efficacy and discussion of politics (Chaffee, Morduchowicz, & Galperin, 1997).

Summary of Interventions.

At this time, the literature on media literacy interventions is equivocal. Perhaps because this line of research is so new and still rather small, we do not have an

extensively developed set of findings about what types of interventions—natural or constructed—work consistently. As for natural interventions, Nathanson (2001a) in a review of this literature concluded that some techniques work whereas others do not; some work with certain kinds of parents or certain kinds of children; and the effects are varied ranging from cognitions (learning about television messages), attitudes (developing skepticism for ads and news), perceptions (of television reality), and behaviors (including aggression, viewing habits, and response to advertising). The same conclusion applies today to the findings on natural interventions; it also applies to the set of findings on constructed interventions.

Conclusion

A great deal has been written about media literacy, producing a literature that is already exceptionally robust and varied. And there is reason to believe that this literature will continue to grow as media use increases and as the public concern about potentially negative effects also increases. However, despite its large size, the study of media literacy is a relatively new scholarly undertaking with almost all of the literature produced in less than 3 decades.

Within this literature, there are some broad themes emerging concerning the role of media literacy as fostering a perspective on general education as well as directing the design of specific interventions that can successfully train people to avoid negative media effects. As more scholars are attracted to this field, we will eventually develop more detailed ideas about how media literacy can best be incorporated into an already crowded public school curriculum. Also, we will eventually develop more successful designs for media literacy interventions that can avoid boomerang effects and achieve more positive goals that will not only help people avoid the negative effects of media exposures but also enhance the positive effects.

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