ABSTRACT

This chapter advances research on media literacy by reviewing studies that utilize media literacy in either short-term or long-term interventions. Media literacy interventions on a wide array of topics including violence, smoking, alcohol, and advertising are reviewed. Effectiveness of media literacy is discussed using various criteria: duration of intervention, intervention design, target group, intervention modality, causal process, and different strategies for media literacy interventions. Key questions addressed in this chapter ask how media literacy efficacy is defined, and what issues surround media literacy efficacy.

Media Literacy Defined

Media literacy has been most commonly defined as the skills of accessing, analyzing, evaluating, and communicating messages in a number of forms (Aufderheide & Firestone, 1993; Hobbs, 1998). Davies (1996) has emphasized listening, viewing, or reading audiovisual texts as basic skills that need to be learned by young audiences. The need for learning technical skills to decode the meanings behind the media, and developing a critical understanding of the relationship between different message content, forms the backbone of media literacy education. Kubey (2004) notes that...
media literacy involves critical analysis of media messages, evaluation of sources of information for bias and credibility, increased awareness about how media messages influence people’s beliefs, attitudes, and behaviors, and production of messages using different forms of media. Similarly, the website of the National Association for Media Literacy Education (NAMLE) (2010a, 2010b) describes the functions of media literacy in this way.

Within North America, media literacy is seen to consist of a series of communication competencies, including the ability to access, analyze, evaluate, and communicate information in a variety of forms, including print and non-print messages. Media literacy empowers people to be both critical thinkers and creative producers of an increasingly wide range of messages using image, language, and sound. It is the skillful application of literacy skills to media and technology messages.

Despite considerable disagreement among scholars regarding how to conceptualize and perform media literacy (Kubey, 1998), most scholars agree on a common set of key concepts. The Center for Media Literacy (2007) has endorsed the following five core concepts as central to media literacy: (1) all media messages are social constructions (i.e., constructed by somebody and never able to reflect reality entirely); (2) people who make media messages use creative languages that have rules (i.e., creative components such as words, music, movement, camera angle, and others are utilized to develop a media message in different formats such as a magazine cover, advertisement, etc.); (3) different people experience the same media messages differently; (4) producers of media messages have their own values and points of view; and (5) media messages are constructed to achieve a purpose, usually for profit and/or power.

The common goals of most media literacy curricula focus on helping young people become informed and active participants in the communication process, rather than passive message recipients (Brown, 1998). Much empirical research to date has rested on the idea of creating media literacy interventions for protecting young people from negative influences of media (e.g., Austin, Pinkleton, & Funabiki, 2007; Banerjee & Greene, 2006, 2007; Pinkleton, Austin, Cohen et al., 2007). Research suggests that interventions help individuals build resistance to specific persuasive message strategies as they become aware of marketers’ strategies, critically weighing evidence and argumentative strategies for learning, constructing one’s own arguments, and enhancing learning such as from public affairs programming (e.g., Austin, Pinkleton, Hust et al., 2005; Hindin, Contento, & Gussow, 2004; Wade, Davidson, & O’Dea, 2003).

What is a Media Literacy Intervention?

The term “media literacy intervention” can be understood as an experimental treatment that introduces specific concepts to study participants (any age group) with the
aim of increasing awareness and promoting deeper understanding of the meaning contained in media messages. The general goal of interventions is to provide people with the initial tools of media literacy, eventually leading them to build upon the cognitive skills required to process media messages in a more active manner (Potter, 2004). Research based on using media literacy interventions is generally directed toward altering those human cognitions involved in the processing of media messages that may serve as a defense against the potential negative effects of media (Byrne, 2005).

Several media literacy interventions designed to specifically address prejudice (Ramasubramanian & Oliver, 2007), sexual objectification in advertising (Reichert, LaTour, Lambiase et al., 2007), media violence (Scharrer, 2006), tobacco use (e.g., Austin et al., 2005; Banerjee & Greene, 2006, 2007; Gonzales, Glik, Davoudi et al., 2004; Pinkleton et al., 2007), adolescent alcohol use (e.g., Austin & Johnson, 1997; Chen, 2009), and body image (e.g., Wade et al., 2003; Watson & Vaughn, 2006) have been tested. The question, then, is what the media literacy interventions are trying to accomplish and how. In the section that follows, we summarize recent research that has used media literacy interventions.

Applications and Interventions

Media literacy appears to be a promising framework that can help to increase the critical skills of media consumers and aid in creating more informed and deliberate users. The primary aim of media literacy programs is to increase students’ awareness of the forms of media messages they encounter in their everyday lives. They should be able to comprehend, analyze, evaluate, and make reasoned choices about advertising jingles, public service videos, news reports, and so forth (Quesada, Miller, & Armstrong, 2000). As scholars and practitioners have become aware of its usefulness, media literacy is receiving growing attention as an applied intervention strategy. In this section, applications of media literacy across different contexts are examined, with particular emphasis on smoking prevention, adolescent drinking prevention, violence prevention, body image, and advertising awareness.

Smoking Prevention

Media literacy workshops on cigarette smoking have shown favorable results (i.e., reduction in smoking-related attitudes, intention, and behavior) for both elementary and middle school children (e.g., Austin et al., 2005; Banerjee & Greene, 2006, 2007; Bergsma & Ingram, 2001; Gonzales et al., 2004; Pinkleton et al., 2007). Unger, Cruz, Schuster et al. (2001) have suggested that media literacy programs should be developed to inoculate adolescents against tobacco marketing strategies. In spite of a
nationwide call to integrate media literacy approaches with school-based tobacco prevention programs (Media Literacy Drug Prevention Teacher Survey Report, 2002), published examples of research are limited (Beltramini & Bridge, 2001).

Recent research suggests that adolescents’ increased knowledge and understanding of advertisers’ persuasive strategies should lead to increased resistance to advertised messages (Austin, Miller, Silva et al., 2002). Accordingly, research results indicate that in-school interventions can help young people understand the role of tobacco advertising in encouraging tobacco use among adolescents and identify marketing strategies tobacco companies use in their advertisements (e.g., Banerjee & Greene, 2006, 2007; Beltramini & Bridge, 2001). This knowledge base may further transfer to development of or change in attitudes that are conducive for smoking prevention efforts (see Banerjee & Greene, 2006, 2007). For instance, Bergsma and Ingram (2001) tested the efficacy of a media literacy curriculum in changing knowledge, awareness, and attitudes regarding tobacco use in the movies. Pretests and posttests were conducted for children (seventh grade) in experimental and control groups. The results showed that children in the experimental group had an increased knowledge of tobacco product placement in films, awareness of the portrayal of tobacco use in films, and showed negative attitudes toward the use of tobacco in films (Bergsma & Ingram, 2001).

In another study by Pinkleton, Austin, Cohen et al. (2003), a media literacy curriculum was designed to prevent tobacco use among young people. In a span of six lessons, children were taught about the tools and techniques the tobacco industry uses to target young people and learned to create their own counteradvertising. The results showed that the media literacy intervention increased the understanding of the potential persuasive effects of advertising and intentions to take action against tobacco use. The results suggested that media literacy may have the ability to serve as both a prevention tool targeting initiation among nonsmokers and an intervention tool for targeting cessation among smokers.

Adolescent Drinking Prevention

“Media literacy training – which generally teaches young people how to understand and create mediated messages – is a potentially important component of substance abuse prevention campaigns directed to younger audiences” (Pinkleton et al., 2003, p. 2). In a study by Austin and Johnson (1997), general and alcohol-specific media literacy lessons were developed to test their effectiveness on children’s (third grade) beliefs about alcohol. Pretests, posttests, and delayed posttests were conducted to test curriculum effectiveness. The results showed that children’s expectancies (perceived expectation of the meaning alcohol drinking conveys) and behaviors (children’s choice of an alcohol or nonalcohol theme product) were becoming more positive toward alcohol over time, and that the media literacy intervention prevented the increase in positive expectancies. The alcohol-specific media literacy curriculum was
most effective in increasing the understanding of persuasive intent, reducing identification with characters, desirability of alcohol advertising, and similarity with characters in the alcohol advertisements (Austin & Johnson, 1997).

Chen (2009) designed and evaluated a media literacy curriculum focusing on alcohol use prevention. A pretest–posttest quasi-experiment with 171 adolescents was conducted to examine the impact of a negative approach and a balanced approach (a combination of negative and positive evaluative approaches) to media literacy on modifying adolescents’ responses to alcohol messages. Results showed that different media literacy approaches had varying degrees of effectiveness by gender. After receiving a negative media literacy lesson, adolescent boys regarded television characters as less realistic and believed that drinking alcohol had negative consequences. Adolescent girls, on the other hand, benefited from a balanced evaluative approach as their media skepticism (a cognitive state of incredulity that encourages more thoughtful processing and additional information seeking; Austin et al., 2002) was enhanced. Chen (2009) concludes by suggesting that health educators should employ media literacy to enhance adolescents’ critical thinking skills and to improve their decision-making regarding alcohol.

### Violence Prevention

Research studies on the topic of media literacy instruction with children regarding media violence have produced promising results. Media literacy has been shown to increase children’s critical attitudes toward media violence, disagreeing that it is harmless, disapproving of characters using violence, and perceiving media portrayals of violence as unrealistic (e.g., Huesman, Eron, Klein et al., 1983; Nathanson 2004; Robinson, Wilde, Navrachuz et al., 2001; Rosenkoetter, Rosenkoetter, Ozretich et al., 2004; Singer, Zuckerman, & Singer, 1980).

In one of the earlier studies, Singer et al. (1980) developed eight media literacy lesson plans to help children understand the different types of television programs, technology behind television production, differences between real and pretend on television, and the purpose and types of commercials. The children (from kindergarten through second grade) were divided into experimental and control groups. Pretests, posttests, and follow-up tests were taken to examine the effectiveness of the curriculum. Overall, the results showed an increase in knowledge about how television works as well as an increase in children’s capability to question and discuss the violence shown on television. Thus, improvements were seen in the area of understanding of concepts and processes of television, and in initiating the development of critical television viewers (Singer et al., 1980). Huesman and Eron (1986) were also able to demonstrate that media literacy intervention can reduce aggressive behavior among children.

More recently, Scharrer (2006) utilized five one-hour visits to sixth-grade classrooms to inform students about media violence and make them critical of the same.
The media literacy curriculum consisted of presentations and discussions around key themes and ethical issues related to media violence, such as rewarded violence, lack of consequences for violence, animated violence, justified violence, and violence perpetrated by likable characters. Statistical comparisons between pretest and posttest responses and between those participating and those in a control group show some increases in the comprehension of key concepts used in the study of media violence and critical thinking about the topic. For instance, learning about lack of consequences in depictions of violence led the participants in the treatment group to express a more critical attitude about the responsibility of media creators (i.e., that they should portray such consequences more). Additionally, qualitative results revealed that post-media literacy program responses were more critical, more precise, and more tuned in to ethical issues than pre-media literacy program responses. Scharrer (2006) concludes: “We can be fairly confident that the media literacy program was, indeed, effective in stimulating participants’ critical thinking about media violence” (p. 81).

Body Image

Use of media literacy to address body image is expected to empower students to adopt a critical evaluation of media content so that they can identify, analyze, and ultimately challenge the thin ideal presented in the mass media (Levine, Piran, & Stoddard, 1999). Watson and Vaughn (2006) note that there have been many efforts to design intervention programs that prevent the development of eating disorders and associated risk factors, such as body dissatisfaction. Media literacy interventions have been designed to alleviate the negative effect that the media have on body satisfaction, but the results have been mixed in terms of effectiveness (Stice & Shaw, 2004; see also Chapter 15, this volume).

Research so far has not shown support for the use of media literacy on eating behavior or attitudes (e.g., Irving & Berel, 2001; Levine, Smolak, & Schermer, 1996), and mixed support for weight concern (e.g., Levine et al., 1996; Wade et al., 2003). Watson and Vaughn (2006) examined whether or not the length of a media literacy intervention had an impact on awareness of sociocultural ideals, internalization of sociocultural ideals, and body dissatisfaction. The results suggested that neither short-term nor long-term media literacy interventions increased awareness of sociocultural ideals of attractiveness. However, both short- and long-term media literacy interventions that challenged the perceived realism of the media had the potential to reduce internalization of sociocultural ideals. Overall, the long-term intervention was more effective at decreasing body dissatisfaction than the short-term media literacy intervention.

Wade et al. (2003) used a controlled study to evaluate the effectiveness of a self-esteem program and a media literacy program in reducing general and specific risk factors for eating disorders, namely self-esteem, weight and shape concern, dietary
restraint, and body dissatisfaction. Results showed that only weight concern was significantly impacted by the intervention. Specifically, the media literacy intervention was moderately successful in decreasing weight concern among participants over time as compared with the control group, thereby suggesting implications for future research and greater efficacy. Wade et al. (2003) conclude by stating that "delivery of a media literacy program within an interactive, student centered, self-esteem building framework may potentially be a safe and effective way of reducing risk factors for eating disorders" (p. 381), but clearly this needs greater research attention. Given that internalization of attractiveness norms, body dissatisfaction, and disordered eating ensue not only from media but also from peers, family, and society at large, it is not surprising that media literacy efforts focusing only on media messages have not achieved desirable results (Irving & Berel, 2001; Stice & Shaw, 2004; Thompson, Heinberg, Altabe et al., 1999). Perhaps combining traditional media literacy interventions with self-esteem interventions or other cognitive approaches will provide a more efficacious way of addressing body image concerns.

Advertising Awareness

Among media literacy’s aims is to help students recognize attempts at manipulation. Research on media literacy and advertising has shown that elementary and middle school children can be taught to identify and understand the persuasive intent behind advertising (e.g., Collins, 1999; Hoffman, 1999; Ward, Wackman, & Wartella, 1977). Hoffman (1999) developed media literacy workshops for middle school children to teach them the process of advertising and other forms of media. The results showed that children’s ability to identify media values (values or concepts media people use in making decisions on what to report as news), media processes, and advertising and propaganda techniques increased significantly from the pretest to the posttest levels (Hoffman, 1999).

In another initial study by Ward et al. (1977), children as young as kindergarten-aged were able to learn how to filter advertising messages so that the persuasive effects of advertisements were mitigated. Ward et al. (1977) suggested that the filter for advertising messages could be used in four different ways. First, it can be used to help children recognize that commercials are trying to sell products. Second, it can be used to help children become skeptical of advertising claims. Third, the filter might reduce the frequency of children’s asking for products that they have seen in advertisements. Fourth, it can be used to direct children toward performance and functional attributes of products. The implications of the study point toward the need for a focused and simple media literacy endeavor to make children advertisement savvy.

Despite numerous implications for media literacy efficacy, Kunkel, Wilcox, Cantor et al. (2004) noted that there exists no study that has examined the statistical relation between children’s understanding of advertising’s persuasive intent and the impact
of advertising and that “there is little evidence that media literacy interventions can effectively counteract the impact of advertising on children of any age, much less the younger ones who are most vulnerable to its influence” (p. 21). In fact, Chernin (2008) showed that a media literacy intervention aimed at showing the persuasive techniques used in junk food marketing made children more likely to choose junk food in an experimental situation, irrespective of age. She hypothesized that children were primed by the intervention or they learned to pay more attention to ads (which increased and not decreased their persuasive power). Therefore, there seems to be more unanswered questions about the link between increase in knowledge or recognition of propaganda in advertising and the impact of advertising; as Chernin (2008) concludes: “Future research should explicitly test the moderating role of knowledge of persuasive intent in the persuasion process and examine how children’s affective responses to commercials influence their preferences for advertised products” (p. 115).

Media Literacy Efficacy: Key Issues

Duration of Intervention

Various media literacy interventions have been evaluated, and the duration of these interventions has ranged from single-session (Ramasubramanian & Oliver, 2007; Reichert et al., 2007), to dual-session (Banerjee & Greene, 2006, 2007), to 3–6 sessions (e.g., Austin et al., 2005; Pinkleton et al., 2007; Scharrer, 2006), to 8–10 sessions (e.g., Gonzales et al., 2004) and longer (e.g., Duran, Yousman, Walsh et al., 2008).

An unresolved issue within the realm of media literacy research concerns optimal dosage and the length of expected effects on target audiences’ attitudes and behaviors. The five or six sessions (or even more) incorporated in some media literacy curricula engage students in analyzing, critiquing, and sometimes producing media messages (e.g., Bergsma & Ingram, 2001; Gonzales et al., 2004; Pinkleton et al., 2007; Scharrer, 2006). These kinds of programs have been shown to produce significant knowledge gains among participants but mostly modest short-term effects on attitudes and behavior. It can be argued, then, that the results show an additive effect of receiving the same antismoking message over a span of five or six days that results in a temporary shift in attitudes. Importantly, similar effects were observed for significantly shorter (one- or two-session) interventions (e.g., Austin & Johnson, 1997; Banerjee & Greene, 2006, 2007; Byrne, 2005; Nathanson & Cantor, 2000; Ridolfi & Vander Wal, 2008), suggesting that brief media literacy interventions work equally well as longer ones. For purposes of theory building and explanation, it is important to know what features of an intervention program produce necessary changes. Because the interventions incur cost (time and money), it is important to understand what kinds of strategies/programs work and do not work.
Intervention Design

Media literacy interventions are most often designed as experimental designs with a pretest and posttest (e.g., Austin & Johnson, 1997; Bergsma & Ingram, 2001; Hoffman, 1999), with a treatment and control group (e.g., Austin et al., 2007; Ramasubramanian & Oliver, 2007; Reichert et al., 2007), or a combination of the treatment and control group design with pretest and posttest measures (e.g., Austin et al., 2005; Banerjee & Greene, 2006, 2007; Chen, 2009; Gonzales et al., 2004; Pinkleton et al., 2007; Scharrer, 2006; Singer et al., 1980).

The combination designs present a more intensive yet efficacious model for interventions. The use of control groups enables researchers to distinguish program-related cognitive and attitudinal changes from effects that might result instead from other ongoing statewide, national, or community prevention programs taking place simultaneously. The pretest–posttest designs allow for evaluation and change over time. Additionally, the inclusion of both pretest–posttest and posttest-only conditions makes it possible to identify and exclude possible testing effects (Pinkleton et al., 2007).

One limitation of media literacy interventions is the lack of random assignment, a must in most experimental research. Due to the practical limitations of conducting research in schools, researchers often randomly assign classes to experimental conditions rather than randomly assigning participants, thereby taking a more quasi-experimental stance. Random assignment is necessary for precluding group-based differences contributing to (or causing) any change that occurs. However, statistical controls must be put in place prior to analyses and differences examined on key variables at baseline.

Target Group

Most interventionist media literacy work has been done with elementary and middle school children (e.g., Austin & Johnson, 1997; Austin et al., 2005; Banerjee & Greene, 2006; Bergsma & Ingram, 2001; Chen, 2009; Hoffman, 1999; Huesman et al., 1983; Pinkleton et al., 2007; Scharrer, 2006; Singer et al., 1980), and some with high school students (e.g., Gonzales et al., 2004). According to Anderson (1983), media content like violence, materialism, body image, risk-taking behaviors, and stereotyping of race, class, sexual identity, and gender seems to offer relevant topics for media literacy curriculum development. Underlying persuasive intent, perceived negative effects of such media messages and “value” laden pedagogy may be easily delivered to a young audience (Anderson, 1983). The research in this area is scarce and needs a much more in-depth examination of curriculum effectiveness. There are many organizations that develop media literacy curricula (e.g., National Telemedia Council, Center for Media Literacy, Media Education Foundation, Center for Media Education), but studies on efficacy and outcomes are not abundant (Heins & Cho, 2002).
In recent years, media literacy interventions have been developed and tested on a more mature subset of the population, namely undergraduate students (e.g., Ramasubramanian & Oliver, 2007; Reichert et al., 2007). Media literacy interventions are rarely adequately tailored to the cognitive capabilities and developmental stage of the target audience. For example, they seem to overlook the importance of one’s experience with persuasive messages (and substances) as a factor intervening in cognitive responses to media literacy programs. Though children have limited cognitive capacities and largely lack experience as persuaders and have difficulty recognizing and critically evaluating persuasive efforts, adolescents possess more advanced cognitive skills and are experienced persuaders (O’Keefe, 2002). Hence, typical media literacy interventions that emphasize both passive learning and active skill acquisition better fit the cognitive abilities and needs of younger children. Research findings are consistent with this rationale, demonstrating favorable effects of these programs on elementary and middle school-aged children (e.g., Austin & Johnson, 1997; Austin et al., 2005; Bergsma & Ingram, 2001).

However, research also demonstrates that the effects of educational interventions on children and young adolescents decay over time as they age and are exposed to other sources of influence such as peers (Bauman & Ennett, 1996; Prinstein, 2001). This is likely related to the tendency of older adolescents to grow skeptical of passive educational efforts that lack sophistication matching their cognitive capabilities and experience with persuasion (Jacobsohn, 2007). One result is that traditional media literacy approaches are not as successful with this subpopulation as they are with younger subpopulations (e.g., Ramasubramanian & Oliver, 2007; Wilksch, Durbridge, & Wade, 2008). Media literacy interventions targeting older adolescents need to establish similar success rates to gain appropriate recognition from scholars and practitioners.

**Intervention Modality**

Media literacy interventions have been designed and presented using different modalities, such as videotaped instruction (Ramasubramanian & Oliver, 2007; Reichert et al., 2007) or workshops with participants (e.g., Austin et al., 2005; Banerjee & Greene, 2006, 2007; Chen, 2009; Gonzales et al., 2004; Pinkleton et al., 2007; Scharrer, 2006). Different interventions use different combinations of lessons and exercises, such as critical analysis of clips, producing one’s own message, and assigning homework done without the direct supervision of the teacher. Future research on media literacy should also examine effective practices that must be embraced by media education teachers (however, no research to date has compared intervention across modalities).

Today, children learn as much (or maybe less) from traditional media as they learn from new media such as the Internet. Hobbs and Frost (2003) note the challenges posed by new electronic media forms as opposed to traditional print or mass elec-
tronic forms such as television. The effects and efficacy of media literacy interventions need to be considered in the context of new and evolving media forms and media convergence (Livingstone, 2004; Rothenberg, 2002) and the combination of strategies such as advertising, information, and entertainment within the same media message (Grigorovici & Constantin, 2004; Shrum, 2004). For instance, a media literacy intervention could look at the most widely used information source on the Internet, Wikipedia (and possibly other informational sites), to identify and analyze the accuracy of information, intellectual property, the perspective of the producer addressing issues such as who is presenting what to whom, and why (Jenkins, Purushotma, Weigel et al., 2009).

Causal Process

Much research on media literacy is atheoretical and there is a lack of clarity about the causal process (or processes) through which media literacy interventions influence attitudes and behaviors of their target audience (e.g., Gonzales et al., 2004; Ramasubramanian & Oliver, 2007; Reichert et al., 2007). Whereas there have been some efforts by scholars to explain the cognitive involvement and subsequent change in beliefs and attitudes (e.g., Banerjee & Greene, 2006, 2007; Scharrer, 2006), much work still needs to explicate those mechanisms underlying the effects.

Media literacy programs employ a variety of strategies but previous evaluations of media literacy intervention programs assessed changes in attitudes and/or behaviors without providing explanations of why and how the participants change attitude and/or behavior when exposed to these programs. Such interventions limit the outcome measures to knowledge or behavior. It is important to explain why and how change occurs to fully understand the role of the intervention (Derzon & Lipsey, 2002). What kind of cognitive processes do the program participants engage in that causes them to change their attitudes, norms, and subsequent behavior? Relatedly, in many instances, attitude change does not lead to behavior change (see Hornik, 2002). To understand how an intervention produces long-term change in attitude, which further results in changed behavior, it is important to understand the learning process. This process-oriented aspect of intervention efficacy is undocumented to this point.

The only consistent effort made in this direction is by Austin and colleagues in their development and use of the message interpretation process (MIP) model (Austin & Knaus, 2000; Austin & Meili, 1994; Austin, Pinkleton, & Fujioka, 2000). The MIP is a decision-making theory and specifically targets individuals’ interpretations of mediated messages. According to the MIP model, individuals’ decision-making is composed of both logic- and affect-based decision-making processes, including perceived realism, desirability, similarity, identification, and expectancies, all of which lead to individuals’ behavioral intention and enactment of actual behavior (Austin et al., 2000). Media literacy research utilizing MIP has shown that media
literacy interventions can affect the decision-making process of adolescents, further leading to changes in attitudes and/or behaviors (e.g., Austin et al., 2005; Chen, 2009; Pinkleton et al., 2007). More research is needed that is strongly grounded in social-cognitive and behavior change theories to allow for a causal explanation of how media literacy interventions work.

**Different Strategies for Media Literacy Interventions**

According to Davies (1996), the backbone of media literacy education involves learning technical skills to decode the meaning behind the media and developing a critical understanding of the relationship between different message content. In terms of strategies for media literacy education, two different kinds of media literacy workshops have been designed and evaluated by researchers, one focusing on analysis and the other on production of media messages – the two key components of media literacy curricula (Aufderheide & Firestone, 1993).

**Analysis**

Masterman (2001) stresses the significance of making the textual investigation of any medium more systematic and rigorous by understanding the key concepts, which include: genre (specific kinds of media content, e.g., drama, comedy, situation comedy, talk shows, news, advertising, cartoons), narrative structure (traditional devices used to tell a story, including setting, character development, conflict, conflict resolution, and conclusion), sources (creator and disseminator of information, could be a person via a blog, organization through a website, or television channel), and encoding/decoding (messages are created, or “encoded,” by media producers with a preferred meaning in mind, and then consumed, or “decoded,” by a receiver or audience). This approach to media education allows students to analyze media messages by describing “what’s going on” in detail. Because the students are involved in a critical examination of media messages, this strategy is called the “analysis” module of media literacy. The analysis module can be used for messages that are both pro- and anti-risk behaviors but research to date has not separated and evaluated these two kinds of messages.

**Production**

Another kind of media literacy program focuses on understanding and applying the production process of television (or any other media form), including lighting, camera angles, sound, time and motion (Fisherkerkeller, 2000; Mudore, 2000; Singer et al., 1980; Zettl, 1998). This kind of information provides children with an understanding of how media messages are constructed and how interactions among various production techniques produce specific effects. The production approach of media literacy, however, encompasses some amount of analysis too. According to Kubey (2000), providing opportunities for children to create their own media stories,
documentaries, or news can help students understand the entire process of media production. In addition, students learn best by doing and getting hands-on experience. Tyner (1992) cautions production-centered media educators because the excitement of creating their own media can often lead to a lack of critical understanding of the media message by students. Nevertheless, the production approach to media literacy is often credited for increasing student self-esteem by engaging them and providing opportunities for self-expression (Tyner, 1992). Because the students are themselves involved in creating media messages, this strategy is called the “production” module of media literacy.

**Examining Analysis vs. Production Strategies**

The two strategies of media literacy training, analysis and production, are utilized in the creation of media literacy curricula (see Austin & Johnson, 1997; Bergsma & Ingram, 2001; Pinkleton et al., 2003). However, for practical and economic purposes, it becomes necessary to evaluate the difference in efficacy of the two strategies. A review of the available literature suggests that no research to date (with the exception of Banerjee & Greene, 2006, 2007) has tested message analysis versus message production strategies for changing attitude, intention, and behavior. Banerjee and Greene’s (2006, 2007) research provided greater support in favor of the production approach in bringing about desired changes in intention to smoke and attitude toward smoking. In terms of cognitive processes, there was an overall support for production workshops eliciting more attention and more positive workshop perceptions than analysis workshops.

Most of the media literacy interventions are focused almost exclusively on having participants acquire the knowledge/skills needed to resist influence from persuasive media messages but generally fail to form students’ motivation to resist such influences. In many interventions (Hafstad & Aaro, 1997; Ramasubramanian & Oliver, 2007; Siegel & Biener, 2002; Sly, Hopkins, Trapido et al., 2001; Worden & Flynn, 2002), students either passively (when they are “told” rather than a two-way discussion) receive persuasive messages/advertisements or engage through discussion activities. Ample research demonstrates that actively engaging audiences in prevention interventions is a more effective strategy than passive reception (Botvin & Griffin, 2007; Tobler, Roona, Ochshorn et al., 2000).

**Understanding Media Habits and Media Literacy**

Another approach to media literacy can involve having young people examine and come to better understand their media habits. One area that can be pursued is for young people, as well as adults, to learn the ways that various media, television in particular and also videogames, get us to view or play longer than we intended. Television frequently teases the next program and tries to hold viewers longer. Videogames are highly habit forming because players want to achieve higher scores or advance through levels and opponents. Videogames also inculcate the experience of “flow” wherein a person concentrates deeply, enjoys the experience, and keeps
playing for long periods of time as long as the challenges of the activity are well in line with the person’s skill level (Kubey & Csikszentmihalyi, 1990).

Flow often comes about when the challenges of an activity closely match the skill of the person. As importantly, rapid feedback is critical to a person experiencing flow. In videogame play, the game keeps getting harder and stays well matched with the player’s skill level, which is also increasing, and the feedback is nearly instantaneous. Further, players today are often playing with others in the same room or online and form teams, and a player cannot readily be pulled from the game without letting his or her teammates down. By learning how television, videogames, and the Internet hold our attention, either by their nature or intentionally by the creators, people can become more aware of how they get pulled in and why it is often so hard to pull oneself away.

Following on the work of Kubey and Csikszentmihalyi (1990, 2002) that demonstrated that television viewing could be habit forming, Brock (2006) ran an experiment with children and was able to show that having young people go without television for a month was, indeed, possible. Indeed, some children volunteered to go even further and do without television for three months. The key, which surprised the researchers, was that so many children succeeded and it was clearly the result of the enterprise being a group effort. One child by herself might not have lasted long, but a whole class of fellow students made the difference. It became a social, team enterprise.

Young people can be helped to become more aware of their media habits by keeping a personal diary of media use to see how many hours each day or week are spent on television, videogames, the Internet, and so on. The idea is not to demonize these media but to heighten student awareness of how reflexive media use can be.  

A Final Word on Efficacy

Some media literacy interventions do seem to help participants to become better “critical thinkers” about media content, processes, and effects (e.g., Austin et al., 2005; Gonzales et al., 2004; Pinkleton et al., 2007; Reichert et al., 2007; Scharrer, 2006). Media literacy instruction also appears to trigger some thought about media content and its comparison to “the real world” (e.g., Rosenkoetter et al., 2004; Scharrer, 2006). Gonzales et al. (2004) conclude: “Media literacy within the conceptual context of social influence emphasizes the importance of environmental metacontingencies that can influence behavior change and offers an important rationale for understanding mechanisms that could contribute to sustained behavior change” (p. 197).

However, some media literacy interventions have shown mixed or inconclusive results. For instance, Wilksch et al. (2008) examined the efficacy of a media literacy intervention targeting perfectionism and media literacy compared to control classes in reducing eating disorder risk with adolescent females aged around 15 years. Perfectionism was defined by personal standards (the extent to which an individual
sets and tries to achieve high standards for himself/herself; Shafran, Lee, Payne et al., 2006) and concern over mistakes (the extent to which an individual has excessive concern about making mistakes and consequences for self-worth and others’ opinions; Bulik, Tozzi, Anderson et al., 2003). In eight sessions each, the perfectionism intervention addressed issues related to eating disorders such as what is perfectionism, assessment of self-perfectionism, what and who influences perfectionism, and changing behavior. Media literacy intervention, on the other hand, addressed issues such as stereotyping, media advertising, pressures from media, and consumer activism. The perfectionism intervention was overall more successful than the media literacy intervention or control group on some outcomes. Media literacy intervention, however, recorded no statistical improvements across the assessment points, and results for the media literacy program were comparable to those of the control condition. Wilksch et al. (2008) conclude by stating that “further investigation is required to determine the demographic most likely to benefit from media literacy” (p. 939).

In another study, Robinson et al. (2001) tested their media literacy curriculum designed with the goal of reducing children’s exposure to media violence on third and fourth graders. The 18 lessons included topics such as budgeting time spent with media, participating in a “turnoff” exercise, and selectively choosing media. Children who participated in the curriculum experienced a significant drop in aggressive playground incidents but there were no significant changes in their perceptions of the world as mean and dangerous. A media literacy study was designed by Dorr, Grave, and Phelps (1980) to develop and test media literacy curricula based on “industry” (production of entertainment programs and industry’s economic system), “process” (processes and sources for evaluating television content), and “social reasoning” (role-taking skills). The overall results showed that children learned the curricula and used the curricula to discuss television’s reality. However, children’s attitudes did not change as a result of learning the curricula.

Ramasubramanian and Oliver (2007) caution against sporadic use of media literacy and conclude that “media literacy training might have a boomerang effect by activating prejudice instead of decreasing such feelings” (p. 641). In their study, Ramasubramanian and Oliver (2007) explored the role of media literacy training and counterstereotypical media exemplars in decreasing prejudicial responses toward Asian Indians, African Americans, and Caucasian Americans. Participants were exposed to a media literacy video or a control group video, followed by an activity to analyze stereotypical or counterstereotypical news stories. The media literacy video introduced participants to the harmful effects of media and the tendency of media consumers to make generalizations based on biased media exemplars. The video also focused on strategies for becoming critical and reflective consumers of media messages. In contrast, the control video focused on various journalistic writing styles such as hard news, feature writing, and so on. Contrary to the researchers’ expectations, results revealed that the media literacy video seemed to increase prejudicial responses as compared to the control video. One of the reasons for such a
finding could be attributed to the fact that the media literacy training utilized in this study was primarily a didactic one-way exercise and did not involve any discussions or interactions between participants, which cautions us against the use of media literacy as a purely “preachy” or “didactic” strategy.

In fact, Byrne (2009) suggests that using media literacy activities in the classroom without involving a cognitive activity may actually backfire. In a study on reducing aggression from exposure to violence in the media, Byrne (2009) demonstrated that fourth and fifth grade students who were exposed to a purely didactic media literacy lesson without involving a cognitive activity reported greater likelihood of using aggression as compared to participants who were exposed to the didactic media literacy lesson combined with a cognitive activity after the lesson. One of the reasons for this finding may be that the media literacy didactic lesson increased participant attention to violence in the media but did not give students any cognitive skills to resist the effects of violence (Byrne, 2009). Therefore, it can be concluded that media literacy interventions need to take on a more participatory role wherein both teachers and students are engaged in tasks involving critical thinking skills. Giving greater empowerment or “voice” to the younger audience while teaching them certain analytic skills may improve efficacy of media literacy interventions.

Conclusion

Research on media literacy remains in its infancy in the United States. It is, after all, a relatively new field. We believe we can expect better studies in the years ahead that will shed more light on what sorts of media literacy education interventions are most effective. The future is bright for media literacy education and research, but increased funding is also needed, especially on basic research problems. Although interspersing media literacy research with social or health-related issues makes it difficult to design the research so that it focuses exclusively on media literacy, designing media literacy interventions to address a relevant social or health issue allows for better funding opportunities to examine media literacy efficacy with a greater focus on appropriate outcomes. Media literacy intervention research is a ripe area for future research endeavors to help develop not just efficacious interventions but to examine the causal processes that make such interventions efficacious.

REFERENCES


**FURTHER READING**


