Guidelines for Media Literacy Interventions in the Digital Age*

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SUMMARY

The purpose of this essay is to present a systematic procedure to help educators, researchers, and others design successful media literacy interventions. The essay begins with a review of three literatures (naturalistic interventions, educational evaluations, and social scientific studies of media effects) as a foundation for a seven-step procedure: (1) Begin with a clear conceptualization of media literacy, (2) determine your learning objectives, (3) analyze targets’ histories, (4) design the treatment to focus on real needs, (5) administer the intervention, (6) measure individuals’ outcomes and processes, and (7) analyzed what worked and why.

Key words: Media literacy, interventions, media effects, knowledge structures, skills

Media literacy is a popular topic that has attracted a wide range of people – parents, educators, policymakers, and scholars – from all over the world (Potter, 2010). Many of these people are attracted to this topic in order to design interventions to help various individuals they believe are vulnerable to negative effects from media exposure. In order to help designers of media literacy interventions, this essay presents a set of guidelines. To establish a foundation for these guidelines, this essay begins with a critical review the literature on media literacy interventions.

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Review of the Media Literacy Intervention Literature

The studies in the media literacy intervention literature exhibit some key similarities that are common to all media literacy interventions. There are also important differences across these studies that reveal three main types of intervention studies: naturalistic interventions, educational evaluations, and social scientific studies.

Similarities

The studies in the media literacy intervention literature all exhibit four characteristics. They have a clearly identified agent, target, treatment, and expected outcome (Potter & Byrne, 2007).

Agent. The agent is the person who designs and delivers the intervention. Usually, this is a researcher, teacher, or parent (e.g., Nathanson, 2004; Valkenberg, Krcmar, Peeters, & Marseille, 1999). These agents are typically motivated by a concern that someone they care about is vulnerable to a negative effect from media exposures, although they also could be motivated by a desire to help their targets increase the positive effects from media exposures.

Agents are arrayed across a wide range of ability to help their targets. At one end of this range are agents who are armed with little more than a caring for their targets and an amorphous fear that particular media content may be harming some targets. At the other end of the range are agents who have a high degree of knowledge about media literacy as well as the constellation of factors involved in the complex process of media influence.

Target. The targets of the intervention are the people for whom the intervention is designed. The most common targets of media literacy intervention studies are children, but some scholars also argue for the need to target special groups of adults, such as parents, teachers, and doctors (Rich & Bar-on, 2001).

It is useful to make a distinction between two types of targets: Primary and intermediary. Primary targets are those people for whom the intervention is designed to benefit ultimately. This type of target in the literature is overwhelmingly children and adolescents. Intermediary targets -- typically public school teachers, health care workers, and parents -- are those people who are given training in using the intervention so that they can deliver the intervention to the primary targets.

Treatment. The treatment is the content of the intervention. Designers of media literacy interventions have used a wide range of elements in their treatments. These elements can be organized into three categories: Target passive elements, target
active elements, and delivery elements. The target passive elements are typically media messages that are presented to targets who are expected to do nothing more than experience the message, such as listening to some kind of lesson (e.g., Nathanson, 2004; Nathanson & Yang, 2003; Rosenkoetter, Rosenkoetter, Ozretich, & Acock, 2004; Sprafkin, Watkins, & Gadow, 1990). Target active elements involve targets in some kind of activity that is designed to get targets to internalize the lesson by engaging in exercises where they need to apply the information from the lesson. Delivery elements are all those characteristics that shape the context of the treatment and guide targets in the way they interpret the meaning and value of the intervention. These delivery elements include things like the tone of the delivery (e.g., serious, authoritarian, humorous, comforting, engaging, condescending, etc.); the relationship of the targets with the agents (degree of familiarity, trust, credibility); and the environment (classroom vs. lab; experience of receiving the intervention either alone or in a group).

Treatments described in the media literacy intervention literature all have at their core the presentation of a media message along with the agent delivering some kind of a lesson to targets. Some of these intervention studies add an active target element, such as stimulating targets to critique video stories (Doolittle, 1980), write an essay (Linz, Fuson, & Donnerstein, 1990), practice empathy (Nathanson & Cantor, 2000), discuss one’s feelings in a group setting (Slone & Shoshani, 2006), engage in cognitive activities (Byrne, 2009), or produce a media message (Banerjee & Greene, 2006). While all these studies have a cluster of delivery elements -- which is unavoidable -- authors of published work typically are sparse in their description of these intervention delivery elements.

**Expected outcome.** Finally, the expected outcome is some aspect of the target that agents expect to manifest itself as evidence of the effectiveness of the treatment. While an expected outcome could be a non-change (such as when agents are using an intervention to reinforce positive habits), overwhelmingly there is an expectation of change, such as an alteration of targets’ attitudes, beliefs, emotional reactions, process of thinking, or behavioral patterns. For example, some agents designed their treatments to increase targets’ cognitive skills (e.g., Moore et al, 2000), especially critical thinking (Scharrer, 2006; Vande Berg, Wenner & Gronbeck, 2004; Vooijs & van der Voort, 1993a, 1993b). Some have focused on teaching media production skills (Banerjee & Greene, 2006; Brown, 2000). Some have focused on increasing the targets’ knowledge about the media (Webb & Martin, 2012). Others have focused more on shaping emotions and motivations (Hoffner, 1997; Linz, Fuson, & Donnerstein, 1990; Slone & Shoshani, 2006). And others have focused on altering
behavioral patterns, such as reducing targets’ exposure to certain kinds of content, such as media violence (Rosenkoetter, Rosenkoetter, & Acock, 2009).

Now that I have defined some basic terms, let’s examine the three types of media literacy interventions. These types differ substantially by agents, treatments, and expected outcomes. However, the one thing almost all of these published studies have in common is a shared primary target - children or adolescents.

**Naturalistic Interventions**

Naturalistic interventions are those delivered by people in the course of their everyday lives as opportunities arise to help targets cope with particular media messages. Typically the agents of naturalistic innovations are parents or teachers who are concerned that the children in their care are being harmed in some way by their exposure to certain kinds of media messages. A popular way to organize naturalistic interventions has been to use a scheme developed by Valkenburg, Krcmar, Peeters, and Marseille (1999), who argued that there are three types of interventions: Restrictive, social co-viewing, and instructional mediation.

**Restrictive.** A restrictive intervention occurs when authority figures -- such as parents -- prohibit the targets from using certain media or when they establish rules that limit exposure to certain kinds of media or messages (see Nathanson, 2001a, for a review of this research). The assumption that motivates agents to use this type of intervention is that the mere exposure to certain kinds of media messages (such as violent or sexual content on TV, digital games, etc.) is harmful in some way to targets, so the prohibiting of exposure is all that is needed to prevent a negative effect.

The literature shows mixed support for the effectiveness of the restrictive type of intervention with some researchers finding it to be effective (Desmond, Singer, Singer, Calam, & Colimore, 1985) while others do not (Nathanson, 2002). For example, Nathanson (2002) found 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. Nathanson interpreted these findings by saying, “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.** This is a type of naturalistic intervention where agents and targets simply watch television together -- typically parents and their children. Parents assume that this form of intervention will have a positive effect because their chil-
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dren will be less likely to view negative content and less likely to exhibit negative effects while viewing with them.

Surveys have found this type of intervention to be relatively rare. For example, Lawrence and Wozniak (1989) report that most television viewing is solitary and that when children do view with a family member, it is usually a sibling. Also, when co-viewing with parents and children does occur, 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). Now in the digital age where children are likely to watch television on smartphones, tablets, and other mobile devices, there is less reason to expect that parents co-view with their children.

Co-viewing, like restrictive intervention, has had mixed results in the research literature. Co-viewing has also been found to be associated with negative outcomes such as coming to believe that television characters are like real-world people (Messeris & Kerr, 1984) and learning aggression from violent television (Nathanson, 1999). However, co-viewing has been shown to have positive outcomes such as increasing the learning of educational content (Salomon, 1977).

Instructional. The term “instructional intervention” refers to a variety of verbal techniques employed by agents when viewing media messages along with their targets. For example, Messaris (1982) explained that parents who use instructional intervention will 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. Although parents often claim to use this type of intervention with their children, studies that actually observe families during television viewing sessions have found that there is generally no dialogue when a parent and child are viewing together (Austin, 1993a, 1993b; Himmelweit, Oppenheim, & Vince, 1958).

The effectiveness of instructional interventions has been found to vary by the agents, targets, and the techniques used. As for agents, Nathanson (2001a) reported that instructional mediation produced stronger effects when delivered by peers than by parents; however, these effects were negative rather than positive. She found that peer mediation led to more positive orientations toward antisocial television, which in turn lead to greater aggression. Of course, the intention of parental mediation is to inhibit negative media effects; however, peer mediation tends to facilitate harm-
ful outcomes. As for targets, 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). Interventions have been fo-
und to 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 has been 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, children are more likely to develop skepticism about tele-
vision portrayals of alcohol use when they rely on parents as primary sources of
information and behavioral modeling.

Educational Evaluations

A second type of media literacy intervention typically involves a group of educa-
tors who design a series of treatments delivered in a formal, on-going setting (such
as a classroom) by students’ regular teachers. These interventions can be relatively
small scale (where one or several teachers incorporate some media literacy lessons
into their regular flow of teaching) or relatively large scale (where an educational
system in a country employs many people as agents who design an entire curricu-
lum that is delivered in multiple sessions over years by professional teachers to a
great many targets).

Regardless of scale, these interventions present a fairly complex challenge. With
small scale interventions, agents must decide among dozens of different types of
outcomes they want to achieve, and they have hundreds of elements as options to
include in their interventions. This challenge is even more complex with larger scale
interventions, because they typically involve many agents who often have different
ideas about what the outcomes should be and a wide range of preferred practices to
achieve those outcomes (Buckingham, 2003; Christ, 2006; Cole & Pullen, 2010; He-
aly, 2008; Hobbs & Jensen, 2009; Jenkins, et al., 2006; Kubey, 1998, 2001; Living-
stone & Haddon, 2009; Masterman, 1985; Semali, 2000; Sholle & Denski, 1994).

There have been many broad scale studies that 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. I will mention a few here to illustrate
some of this variety. One example is Flashpoint which was developed to help chil-
dren and adolescents to become active thoughtful consumers by teaching media
literacy and critical thinking skills and thereby resist impulses which might lead
to violence, substance abuse, or prejudice (Moore et al., 2000). Another example is Coping and Media Literacy (CML), which was designed to help older children (aged 7 – 13) and their mothers deal with terrorism presented in media messages (Comer et al., 2008). Voojjs and van der Voort (1993a, 1993b) describe a study conducted in Dutch primary schools to alter the cognitive effects that television violence can have on 10- to 12-year-olds by encouraging them to evaluate critically the portrayal of violence. The study was successful in teaching children to perceive the good guys’ violent actions more critically thus increase their understanding of the differences between television and real life violence. Rosenkoetter, Rosenkoetter, and Acoc (2009) implemented a 28-lesson classroom-based intervention delivered over 7 months to 496 children in 32 classrooms (grades 1 to 4). The intervention was successful in teaching children more critical attitudes concerning television violence so that they decreased the amount of time they watched violence, an effect that lasted up to 8 months. And using 6th graders as targets, Scharrer (2006) delivered an intervention designed to encourage learning and critical thinking about media violence, using a selection of “high-risk” portrayal factors as a foundation.

Social Science Studies

There is a very large media effects literature that has been estimated to be as large as 4,000 published studies (Potter & Riddle, 2007). While almost all of this literature was not designed specifically to test media literacy interventions, it still offers high value to media literacy because it illuminates a wide range of media effects as well as a long list of factors that have been found to be associated with those effects.

The agents of these studies are typically scholars and researchers who design treatments that focus on one or two characteristics of media messages or the exposure situation in an effort to reduce the complexity of media influence so they can more cleanly focus on the role those featured factors play in increasing or decreasing a particular effect. Their purpose is to generate basic knowledge about media influence by examining whether one or several variables are related to a particular media effect. This is in contrast to the set of intervention studies I have labeled as educational evaluations where the purpose is to evaluate the overall effectiveness of a particular intervention in a specific setting in achieving an expected outcome.

Within this large media effects literature, Thai (2014) identified 45 studies that tested media literacy interventions. Most of these studies focused on inoculating children and adolescents against the risks of either violent messages (e.g., Nathanson & Yang, 2003; Rosenkoetter, Rosenkoetter, Ozretich, & Acoc, 2004; Scharrer, 2006) or a risk to health from smoking (Banerjee & Greene, 2006; Beltramini & Bridge,
2001; Primack, Sidani, Carroll, & Fine, 2009), alcohol use (e.g., Austin & Johnson, 1997; Goldberg, Niedermeier, Bechtel, & Gorn, 2006), or eating disorders (e.g., Coughlin & Kalodner, 2006; Raich, Portrell, & Palaez-Fernandez, 2010; Wilksch & Wade, 2009). A few were designed to increase positive behaviors, such as increase consumption of more nutritional foods (Evans, Dave, Tanner, et al., 2006; Hindin, Contento, & Gussow, 2004).

Summary

All media literacy interventions are structured by four components: Agents, targets, treatments, and expected outcomes. However, there is considerable variety in how designers of media literacy interventions make decisions about each of these four components and this is why there is such a diversity of interventions in this literature. It is helpful to organize this diverse literature into three categories: Naturalistic interventions, educational evaluations, and social science studies.

What is missing in this literature is the testing of interventions specifically designed to help targets deal with the challenges in the new media environment brought on with the digitization of information, the popular use of mobile devices, and the interactive nature of electronic communication. While the passive viewing of TV programs has been shown to offer viewers risks of negative effects, the interactive use of social networking sites and electronic games would seem to expose targets to a much higher risk of media influence due to the way they provide much more intense emotional experiences, and shape both the cognitive processes and behavioral patterns of users over the long term through the constant feedback.

Guidelines for Media Literacy Interventions

The seven-step procedure offered in this section has been generated from an analysis about what has been found to work and not work well in the media literacy intervention literature as well as the more general media effects literature. The steps in this procedure are also sensitive to the increasing challenges forced on us by the changing media environment.

Step 1: Begin with a Clear Conceptualization of Media Literacy

If you plan to design a “media literacy” intervention, the first step is to articulate clearly what you mean by media literacy. There are many definitions for media literacy (for a sampling, see Potter, 2004, 2009, 2010). Some of these are much
more helpful than others for providing a foundation for a media literacy study. The most useful definitions are those that are more elaborate and detailed, because those definitions will provide a lot more guidance for the essential design decisions, especially in selecting a useful expected outcome and for designing an intervention that has a higher probability of delivering such an outcome.

Unfortunately, this is a weak point in the media literacy intervention literature. Authors of many of these intervention studies have either failed to provide any conceptualization for media literacy or they simply substituted another term for media literacy without defining those other terms in enough detail to provide a foundation for their expected outcome nor for their design decisions about the treatment. To illustrate this point, Thai (2014) analyzed 45 media literacy intervention studies published in scholarly journals and found that 16 (36%) offered no conceptualization of media literacy at all, and that 20 (44%) defined media literacy with a synonym, such as “critical analysis,” “critical evaluation,” or “critical thinking” without providing a clear definition of any of these synonyms. The most popular of these synonyms has been “critical thinking,” which itself has been defined in many different ways including logical reasoning, analytical ability, willingness to analyze, willingness to criticize, etc. So substituting the term “critical thinking” for the term “media literacy” does not increase the scholarly foundation of an intervention study unless the author clearly specifies how critical thinking manifests itself in a measurable way and then goes on to lay out the cognitive steps required in applying the process of critical thinking in enough detail to guide the development of an intervention to teach that particular process.

To illustrate how a definition of media literacy can be detailed enough to serve as a useful foundation for an intervention study, I will use the conceptualization I presented in Theory of Media Literacy: A Cognitive Approach (Potter, 2004). This is a systems type approach to media literacy composed of three interlocking components: (1) building knowledge structures in five areas, (2) increasing a set of seven skills, and (3) strengthening a person’s personal locus (see Table 1). This conceptualization outlines a range of expected outcomes and directs scholars to think about how to achieve those outcomes by recognizing that targets’ knowledge, skills, and motivation work together. Therefore the success of an intervention depends on stimulating improvement in all three areas through an iterative process. This conceptualization cautions that interventions that limit themselves to only one of these components will at best result in only a minor and temporary improvement.

Without a strong theoretical basis, the generation of individual studies is not likely to yield anything more than a literature that is composed of conflicting and equivoc-
cal results. It will produce a literature where it is very difficult to make meaningful comparisons across studies because of very different conceptualizations, idiosyncratic clusters of elements in treatments, and questionable measures for effectiveness. To illustrate this point, let’s look at the relatively large literature on sex education interventions. Kirby (2001) conducted a meta-analysis of studies of over 300 sex-education programs and found that in general these programs had no effect on sexual behavior or contraceptive use. It is tragic to realize that even with so many studies on such an important topic, very little knowledge has been generated.

If the literature on media literacy interventions has a chance to generate more useful insights into how agents can shape the media influence process on particular targets, designers of these individual studies need to work from a stronger conceptual basis. This will allow them to make more efficient use of their limited resources to generate valid findings that can more easily be integrated into a systematic development of knowledge.

**Step 2: Determine Your Learning Objective(s)**

The more clearly you are able to state your learning objectives for the intervention, the easier it will be to design the intervention itself and to formulate the measures of the intervention’s effectiveness. As you craft your learning objectives, you need to think about six things -- type, time, change, direction, degree, and scope. Let’s examine each of these six issues.

First, select one type of effect you want your intervention to achieve. There are many types of effects for you to choose from. For example, if you are dealing with media violence, there are at least 19 different effects that can occur from exposure to media violence (Potter, 1999). Depending on your topic, there may be even more choices for effects (see Potter 2012 for an in-depth treatment of this). Do not be overwhelmed by all the choices; instead pick one and focus all your attention on achieving that one type of effect. If you try to achieve more than one effect you increase the risk of failure because effects often work at cross purposes with one another. For example, let’s say you are concerned about your targets being exposed to violent messages and you want to design an intervention that would help those targets avoid all the possible negative effects. Two of those negative effects are fear and desensitization. If you design an intervention to reduce targets’ fear of being victimized, you are likely to increase (not decrease) the negative effect of desensitization. If you design an intervention to reduce targets’ fear of being victimized, you are likely to increase (not decrease) the negative effect of desensitization. If you design a treatment to try achieving both a reduction of fear and an increase in sensitivity to violence, you will likely fail to achieve ether. So it is better to focus on one type of effect at a time.
Second, think about time. Should the effect of the intervention be expected to show up during the intervention itself, shortly after the intervention is completed, or some time later? Also, consider how long the effect of the intervention should last. Is it sufficient that your expected outcome manifest itself only during the intervention period or should it also be in evidence a day later or a month later? The decisions you make on this time dimension will lead to measurement decisions (Step 6) because there needs to be a correspondence between your articulation of the expected outcome and your evidence for it.

There is a disconnect in the media literacy intervention literature between expected outcomes and their research designs. In their meta-analysis of 51 media literacy interventions, Jeong, Cho, and Hwang (2012) found that only one used a longitudinal design. This is a serious shortcoming in the literature because the purpose of media literacy interventions is much less about triggering an immediate effect and much more about providing people with the tools and knowledge to use in their everyday lives over the long term.

Third, think about change vs. non-change. Do you expect the outcome to be exhibited as an alteration in attitude, belief, emotional reaction, behavioral pattern, etc.? Or instead do you plan for your intervention to reinforce something (e.g., an existing belief or behavioral pattern).

Fourth, think about direction. If you expect a change, should that change reduce something (e.g., fear reactions while watching horror films)? Or do you expect the intervention to increase something (e.g., knowledge)?

Fifth, think about degree. If you plan for the intervention to change something, how much change do you expect? Some change can be viewed as categorical. For example, perhaps your targets have a negative attitude about something and the purpose of your intervention is get them to change to a positive attitude. However, most expected outcomes are not categorical; instead they vary by degree, because researchers typically use outcome measures that are continuous, such as a seven-point agree-disagree scale. If you use such a scale and find that your targets change their attitudes from a mean of 1.6 to 2.8, how do you interpret this? Is a change of 1.2 enough to meet your expectations for the intervention to be a success? What researchers typically do with such data is run a statistical test to tell them if a change of 1.2 is statistically significant, that is, the probability that a change of this degree could have occurred by chance alone. But statistical significance is not the same as substantive significance. When you are establishing your benchmarks for learning objectives, you should be much more concerned about substantive significance, and this requires you to think about the degree of change. In this example, a change
of 1.2 on a seven-point Likert scale could be statistically significant if the study has several hundred targets, but this change is tiny -- moving targets from a strongly negative attitude to a slightly less negative attitude. Is such a small expected outcome worthy of all your effort?

Finally, think about scope. Scope refers to how many people in your target group have crossed a threshold of some kind. A threshold might be changing from a negative attitude (i.e., less than 3 on a seven-point scale) to a positive attitude (i.e., greater than 5 on the scale). An expectation that 50% of targets will cross the threshold is less ambitious than an expectation that 90% of all targets will cross the threshold. You want to be ambitious in establishing your expectations without being unrealistic.

**Step 3: Analyze Targets**

Oftentimes designers of media literacy interventions will begin with a surface understanding of their targets derived from their unsystematic observations and intuitive reasoning. For example, parents typically feel that they understand the risks their children face, and this feeling is accurate up to a point. However, the depth of this understanding is not usually sufficient for designing a good intervention. This is especially the case in the new media environment where children are likely to have far more experience with video games and social networking sites compared to their parents. Parents’ belief that their children are at risks for negative effects from their use of these media is warranted at a general, superficial level. But when parents try to articulate the specifics of that risk, they are likely to focus on the faulty or the trivial and overlook where the real dangers lie.

Agents need to move beyond their surface intuitions about risk and gather more in-depth information while developing a good articulation of expected outcomes. While it is true that some risks are obvious, media influence is not so obvious, that is, it is a complex process where many factors interact. Therefore it is important for agents to increase their understanding about their targets as well as the process of media influence.

**Read published literature.** Agents can begin this task by carefully reading the published literature to gather information about the intended effect and how it has shown up in studies of samples similar to the target group. For example, one of the most prevalent findings in the mass media effects literature is that the effectiveness of interventions vary by age and viewing history of the target children (Nathanson & Yang, 2003). Another key variable in the literature is the personality characteristic of compliance. With compliant children, the techniques of restrictive mediation
and providing rules for exposure work well as do conversations where the agent’s requests are laid out clearly. However, non-compliant children are susceptible to “forbidden fruit” temptations, so telling them to stay away from certain content will serve to increase the attractiveness of that content. Also, non-compliant children are susceptible to boomerang effects, that is, they are likely to do the opposite of what you ask them to do. There are many key personality differences across any group of children; ignoring these differences will significantly reduce the probability that your intervention will be effective.

**Examine your targets.** While the literature contains a good deal of insight about who has been found vulnerable to which effects, you need to tap into one more source of information -- your targets. The more you know about your particular target group, the better your design will be. Some of this information about your targets may exist. If your targets are students in a school, then the school has records about their aptitudes, achievements, behavioral patterns, etc. But even if this information exists, you will still need to collect more information from your targets to determine what their needs are and to calibrate which needs are the most important.

Conduct a pilot test to find out what knowledge and skills your targets already have. This will give you the ability to assess whether the target group exhibits the need you think it does, how strong that need is, and how widespread it is among all members of the target group. Also, it will give you information about how your intervention can be successful, that is, you can avoid spending your resources giving them information they already have and teaching them skills they already have. For example, there are differences across children in terms of their ability to distinguish between reality and fantasy. Treatments that focus on fantasy–reality distinctions have been found to be more effective with younger elementary school children (Rosenkoetter et al., 2002; Sprafkin et al., 1990) than with older groups (Doolittle, 1980; Huesmann et al., 1983). Older children are aware of this distinction and become bored or resentful when someone tries to teach them something they already know, so more advanced treatments are needed to capture and hold the attention of older children.

If you skip this step, you run the risk of designing an intervention that tries to fix a problem that does not exist, is trivial, or might even backfire. For example, Doolittle (1980) trained his target children to produce violent programs as a way to show them how unrealistic such programs were. However, he found that his intervention encouraged aggressive behavior, which suggests that being involved in creating entertainment violence may inadvertently legitimize antisocial behavior or
deemphasize the negative consequences of such behavior. Byrne (2009) also found this boomerang effect.

Careful pretesting of your targets will enable you to pinpoint where the needs really are. If you focus your intervention on the wrong need, you as the agent run the risk of losing your status as an expert. For example, there are areas where children may have competencies that their parents, teachers, and other adults do not have, and the children know this. In the new media environment with smart phones, text messaging, social networking sites, easy downloading of video and music, and software to make mash-ups, children quickly acquire many skills from their friends in their everyday lives that adults do not have (Olson & Pollard, 2004). If agents then act like experts in media literacy, it is often very difficult for children to believe those agents have credibility if the targets feel they know more than the agents.

The information you gather in this step will lay the foundation for the decisions you make in all the subsequent steps. So take your time. Do your research so you can make those decisions based on evidence rather than intuitive guesses. You don’t want to spend considerable resources in an attempt to solve a problem that is a marginal one or even non-existent. The more you learn about your targets early on, the better your subsequent design decisions will be.

Step 4: Design the Treatment to Focus on Real Needs

This step requires that you use the information you gathered in the previous step to determine what the most important needs are among your targets then designing the intervention to focus on making a difference in that one need. To do this well, you need to select the right stimulus material, design the right treatment to showcase that stimulus material, and to train your agents.

Select stimulus material. All media literacy interventions rely on the presentation of media messages. So you need to find examples of media messages you think are influencing people in the direction of your chosen effect. Then you need to analyze those messages for elements of influence, that is, what elements appear in those messages that would contribute to the expected effect? If your intention is to enhance the expected effect, select those messages with the greatest number of those influential elements; in contrast, if your intention is to reduce the expected effect, then find messages with the fewest (or counter) elements.

Design the treatment. A media literacy intervention requires the assembly of a set of elements that work together to bring about the desired effect. If you have completed the first three steps well, you have many ideas about what you want to put
into your intervention. But remember that you need to be selective. The intervention should not be cluttered. It needs to be simple so that targets -- especially children -- can easily follow it. It needs to be compelling so that targets are interested in what you are doing and will pay attention. And the targets need to be invested in the outcome, that is, you need to motivate them to become committed to accomplishing the goals of the intervention. When interventions present materials that are ambiguous or that present multiple perspectives, the message that the intervention designers intend to teach may be misinterpreted by certain targets (Filotas, 1993). These alternative interpretations made by targets can end up reinforcing the attitudes and behaviors that the agents were intending to change in their interventions, that is, the interventions can boomerang (Byrne, 2009).

When you present information, make sure it begins with a recognition of what your targets already know then proceeds with presenting new information step by step toward a clear goal. As you proceed, engage your targets in activities that help them practice using the information, thus internalizing that information as they develop particular skills. Throughout these activities, provide frequent feedback. Be positive and reinforcing.

Finally, and perhaps the most important but most overlooked aspect, you need to think about the persuasive process that will drive your intervention to a successful outcome. In short, you must ask yourself: Why do I think this particular intervention will work? To answer this question, you need a good rationale, and this typically will come from the persuasion literature because in essence what you are trying to do is persuade your targets to change their attitudes, beliefs, behavior, or the way they think about something.

**Select and train agents.** You need to think about who will be the agents who deliver the intervention, how they will be trained, and how their work will be monitored. In small scale interventions, the agents are usually the designers of the project. But in large scale projects, the agents need to be recruited, trained, and monitored.

**Step 5: Administer the Intervention**

This is essentially a management task that can become quite involved if you have many targets spread over several sites and if you engage in multiple measurements and treatment administrations. This task also is complicated when you are testing more than one intervention in experimental settings. With experiments, it is essential that the all targets in a particular treatment condition get the exact same treatment. This is difficult to do when those targets are spread out over many locations and experience many different agents delivering the lesson.
Step 6: Measure Individual’s Outcomes and Processes

After you have gone to all the trouble to design and administer treatments, you want to know whether they worked, so you need to take some post-treatment measures. The more carefully you think through some key issues, the better your measures will be. As you construct your measurement instruments, you will need to think both like a researcher as well as like a target person. As for being a researcher, you will need to construct measures that are valid indicators of what you want to achieve. So if you want to change a person’s behavior and not default to the faulty practice of asking targets to report their own behavior. Also, if you are interested in change, you will need to observe behavior at least two points in time so that you can generate change score evidence. You may want to add other measurement periods so that you can monitor the speed and shape of change as well as how long the change lasts.

You also need to think like a target when developing your measurement instruments. Use the language level of your targets so that you do not confuse or insult them. Also, think about whether the length of your instrument will fatigue them.

Step 7: Analyze What Worked and Why

In many media literacy intervention studies, researchers stop at step 6, especially if they found what they expected. However, this last step is the most important one for increasing our understanding about interventions. This is especially important if we were not able to generate convincing evidence for our expected outcomes and our intervention appears to be a failure. However, it is not a failure if we can generate insights that clarify what the barriers were that prevented us from achieving our expected outcomes. This learning is essential in helping us improve the design of our next media literacy intervention project.

With even the most successful interventions, there are still some targets who will be found not to meet expectations. It is important to analyze why. If the purpose of media literacy is to help people avoid the negative effects of media influence, then we should try to help everyone. Those targets who show they are immune to the positive effects of an intervention should not be ignored; instead they should be regarded as a higher challenge who require a different intervention. If they are ignored, they are likely to cause trouble later on. Thus it is important to make two distinctions: individual vs. group and product vs. process.

**Individual vs. group.** Because the effectiveness of media literacy interventions are so frequently tested in an experimental design, the group becomes the unit of anal-
ysis. That is, the means of outcome measures are compared across treatment groups or compared to a control group. While this is an efficient way to get to the bottom line of constructing an indicator of whether the treatment worked or not, it ignores a lot of information. It is far better to use the individual as the unit of analysis and to compute a difference score on the outcome measure between the pre-test and the post-test. If you planned for change, are the difference scores large enough to meet your benchmarks? Are the differences widespread across all targets or do only a few targets change? In contrast, if you are trying to reinforce positive behaviors, you want the change scores to be very small or even zero.

**Product vs. process.** It is likely that many seemingly well designed media literacy interventions will not be found to work as expected. Some may appear to elicit no change and some might actually elicit change in the opposite direction from what is expected, called boomerang effects. It is better to think of media literacy interventions as a process rather than as a one-shot product. If your intervention meets its expected outcomes, then continue with your success. If your intervention did not meet all its expected outcomes, do not think of this as a failure of product. Instead, let this trigger greater analysis of the patterns, which should lead to deeper insights about the process of media influence and how to counter it; such insights when used in the design of subsequent media literacy interventions have a chance of greater success and have the potential to advance the frontiers of knowledge. Thus it is important to think of media literacy as a process that requires the constant development and testing of better and better interventions.

**Conclusion**

A great deal has been written about media literacy. An important part of this literature provides tests of media literacy interventions, either directly as in the case of naturalistic interventions as well as educational evaluations, or indirectly as in the case of the studies in the very large literature of media effects. This large literature is relatively exploratory, that is, it is focused on providing a great many suggestions about the range of media effects, the factors of influence that are associated with those different effects, and the relative vulnerability of various targets. Designers of media literacy interventions can benefit a great deal from the insights in that literature but it is important that designers be guided through their decisions by a theory that helps organize all those insights. This essay has tried to provide such guidance by offering a set of 7 guidelines.

It is important to avoid regarding this seven-step procedure as a simple linear process. The quality of the decisions you will make in any one step of this process is
determined by the quality of decisions you have made in the other steps, because each step serves as context for each of the other steps. Thus as you work through each step in the process, your understanding of your intervention project is likely to increase substantially, and this greater understanding can help you re-visit the decisions you made in earlier steps and make them even better. So while it is useful to proceed through these seven steps in order, it is even more useful to regard the process as a cycle; the more times you cycle through the process, the greater depth you will achieve in your understanding and the greater value your project will deliver, not just to your targets but to other scholars who will read your published findings.

REFERENCES


Guidelines for Media Literacy Interventions in the Digital Age


<table>
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<th>Personal Locus</th>
<th>Knowledge Structures</th>
<th>Skills of Media Literacy</th>
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<tr>
<td>Direction - awareness of goals</td>
<td>Media industries - the values and practices of the media businesses and organizations</td>
<td>Analysis - breaking down a message into meaningful elements</td>
</tr>
<tr>
<td>Drives - energy (mental and physical) needed to achieve one’s goals</td>
<td>Media audiences - the composition, attraction, and maintenance of consumers of media</td>
<td>Evaluation - judging the value of an element; the judgment is made by comparing a message element to some standard</td>
</tr>
<tr>
<td></td>
<td>Media content - the formulas and conventions used in constructing media messages</td>
<td>Grouping - determining which elements are alike in some way; determining how a group of elements are different from other groups of elements</td>
</tr>
<tr>
<td></td>
<td>Media effects - the range of ways media influence shapes audience thinking, emotions, attitudes, beliefs, physical reactions, and behaviors</td>
<td>Induction - inferring a pattern across a small set of elements, then generalizing the pattern to all elements in the set</td>
</tr>
<tr>
<td></td>
<td>The real world - direct experience with people, settings, and events in the real world</td>
<td>Deduction - using general principles to explain particulars</td>
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<td></td>
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<td>Synthesis - assembling elements into a new structure</td>
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<td></td>
<td></td>
<td>Abstracting - creating a brief, clear, and accurate description capturing the essence of a message in a smaller number of words than the message itself</td>
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Abstracted from Potter (2008)
Smjernice za posredovanje u korist medijske pismenosti u digitalnom dobu

W. James Potter

SAŽETAK

Cilj ovoga rada je sustavno predstaviti postupak koji može pomoći pedagozima, istraživačima i svima ostalima, u uspješnom kreiranju njihova posredovanja za medijska opismenjavanje. Rad počinje pregledom literature (naturalističko posredovanje, evaluacija znanja i društveno znanstvene studije medijskih učinaka) kao osnovom za postupak u sedam koraka: (1) početi sa jasnom konceptualizacijom medijska pismenosti, (2) odrediti ciljeve vašega podučavanja, (3) analizirati povijest ciljeva, (4) dizajnirati postupak tako da se usredotoči na stvarne potrebe, (5) upravljati posredovanjem, (6) mjeriti pojedinačne rezultate i procese, i (7) analizirati što je djelovalo i zašto.

Ključne riječi: Medijska pismenost, posredovanje, medijski efekti, struktura znanja, vještine