MEDIA MINDFULNESS: DEVELOPING THE ABILITY AND MOTIVATION TO PROCESS ADVERTISEMENTS

by

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ABSTRACT OF THE DISSERTATION

Media Mindfulness: Developing the Motivation and Ability to Process Advertisements

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The present study utilized the theories of flow, mindfulness, and the elaboration likelihood model of persuasion to explore which factors may influence the cognitive processing of advertisements by students who participated in a five-week media education curriculum. The purpose of this study was to determine if students who participated in a media education curriculum that focused on advertising differed in their cognitive processing, attitudes, and knowledge of advertisements from students who did not participate in the curriculum.

Participants were eighth grade middle school students from an affluent community in Morris County, New Jersey. Differences in attitudes, number of thoughts, and knowledge were investigated. A grounded theory approach was used to analyze student thought listings. The results showed that students who participated in the media education curriculum were more mindful of their advertising consumption. Additionally, students had more positive attitudes toward advertising, language arts class, and working as a member of a team. Students who participated in the curriculum were also more knowledgeable about advertising.

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DEDICATION

To my son, Scott
Never give in, never, never, never, never;
in nothing, great or small

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For explaining how to use
my life experiences as tools -- not weapons

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CHAPTER I

INTRODUCTION

It is the mark of an educated mind
to entertain a thought without accepting it.
-Aristotle

Thinking about and critically engaging with any type of advertisement is not something most people want to do. Many of us lack the motivation and, to some extent, the ability to critically analyze and evaluate this type of media content. There are many reasons why advertisements across media may be discounted or ignored. First, advertisements across media are commonplace. The American Psychological Association reports we are exposed to 40,000 or more advertisements a year (Kunkel, 2001). If we divide the total yearly exposures by the days in a year, it becomes evident that we are exposed to approximately 109 advertisements a day. The Kaiser Family Foundation (2005) reports that the average 8-18 year old consumes approximately 6.5 hours of media a day. Simple mathematics leads us to conclude that young people consume approximately 17 advertisements for each hour of media consumption.

Advertising has been intricately woven into the fabric of society. No matter where we look an advertisement of some sort can be found. Today, we even have educational institutions airing advertisements in homeroom (Gormly, 1999). Unfortunately, our educational system does not systematically encourage teaching about and with advertisements. Little time and attention is given to students to aid their digestion of the many advertisements to which they are exposed and consume on a daily basis. Add to this equation the fact that most people dislike advertisements. When we see one our

typical reaction is to change the channel or turn the page. It is the mindless consumption of advertising, or any media content, that should be of concern to parents, teachers, and policy makers.

Advertisements do more than sell us products or particular world views. They are cultural artifacts with which we live. They are windows into a collective psyche of consumption. They are also artistic expressions of contemporary society. They teach us as well as reflect who we are as a culture. Many media literacy educators, psychologists, parents and policy makers do not view advertisements positively. There are many good reasons why. Psychologists believe advertisements aimed at children advocate violence and are responsible for childhood obesity, a breakdown in early learning skills and the destruction of parental authority (Kunkel, 2004). Advertisements are obviously something to avoid and criticize rather than enjoy.

Associating television advertisements with enjoyable activity may be difficult to do. Television viewing has been associated with rising obesity in children (Dietz & Gortmaker, 1984), early sexual activity (Collins et al., 2004; Escobar-Chavez et al., 2005), unhealthy body image (Field et al., 1999), and glamorization of drug, alcohol and tobacco use (American Academy of Pediatrics, 1996; 2006). In light of such findings, it is not easy to suggest advertising might be able to promote psychological well being and health. The negative perception of advertising, while warranted, prevents us from wanting to engage with it or teach it in more productive and positive ways – our motivation to process advertisements is impeded because we hold negative attitudes toward it. It is the motivation to process advertisements, not simply the ability, which ultimately determines whether or not we will do it. We are more intrinsically motivated

to do things we find enjoyable. We are much less motivated to do things which we believe are harmful and damaging.

Some may wonder why anyone would want to engage with advertisements for the purpose of enjoying them. Learning to enjoy advertising consumption provides greater possibility for more informed and deeper cognitive processing, and a more positive attitude toward advertisements may offer possibilities for psychological development and growth. For some, it may even offer opportunities for a deeper engagement with one's surroundings. As citizens, our best defense against the onslaught of media messages is to be mindful of what we consume. Of course, not everyone will or does process advertisements the same way. Product type, arguments present in the advertisement, prior experience with the product, social norms of product use, and a variety of other factors have been studied to determine how elements of the advertisement influence whether or not the viewer is persuaded to want or purchase the product or service (Eighmey & Sar, 2007). Little research has been done to determine if media literacy curricula can modify the cognitive processing of advertisements so that the experience is one of enjoyment. When research is done regarding media literacy curriculum and advertising it is typically to determine whether or not students are better protected against the onslaught of negative messages such as smoking (Chaturvedi, 2005) and alcohol use. While this aspect of media literacy education is extremely important to the future health of our youth, it may not be the most effective media education approach.

In today's educational landscape, little time is spent educating students to be critical, yet appreciative, consumers of advertisements. How do we encourage students to critically examine and appreciate a form of communication which, by all accounts, is

perceived as manipulative and contributes to unhealthy lifestyles and attachments to "things"? Think, for example, about stories of young people killing each other in order to obtain a pair of designer sneakers or the young girl who is ostracized by her classmates because she is unable to afford the newest pair of $200 jeans. Advertisers, sometimes with the help of psychologists, exploit basic human needs such as the desire to fit in with peers, maintain good health, and feel safe (Kramer, 2006).

Researchers and educators face the challenge of identifying teaching methods that can encourage and develop the *motivation* and *ability* to think thoughtfully and critically about the media. The use of teaching methods not reflective of necessary contemporary literacy skills may be one reason why progress toward critical thinking skill development appears slow. Simply stated, approaches for teaching literacy and thinking skills still largely discount one of the most influential meaning making institutions in the United States, the media and more specifically advertising. An advertising-based media education curriculum, with an emphasis on production, may motivate what has colloquially been labeled Generation M to think about advertisements more mindfully by encouraging more positive attitudes toward advertising and by providing them with the critical thinking skills necessary for engagement.

Starting with the end in mind, the theory of flow will be explored as the optimal cognitive state for viewing media. Recognizing not everyone will enjoy the act of viewing advertisements, the theory of mindfulness is provided as alternative cognitive outcome for the processing of advertisements in particular and the media in general. The elaboration likelihood model of persuasion (ELM) is offered as a theoretical frame for understanding how advertisements may be processed as well as how they have been

studied. ELM theory, however, falls short in its explanation of the importance of intrinsic motivation. Nor does it consider critical thinking within the context of what is viewed as an important aspect of motivation to process advertisements. Critical thinking is presented as an important aspect of media literacy education and will be applied to understand how media literacy approaches promote a viewing experience where challenge and skill are a necessary component of media mindfulness. Finally, differences in media literacy approaches and media literacy outcomes will be addressed in order to understand how a mindful approach to media consumption may be integrated into school curricula.

This study tested whether eighth grade students who participated in a media education program that focused on analyzing, evaluating and producing advertisements exhibited greater ability and motivation to think critically about advertisements than students who did not participate in the program. It also considered whether or not such a curriculum may encourage more mindful and enjoyable consumption. The elaboration likelihood model (Petty & Cacioppo, 1984; 1986) of persuasion was used as a conceptual frame to help understand how the cognitive processing of advertisements has been understood and studied in the field of Communication, while the concepts of mindfulness (Langer, 1989; 1993; 2000; 2005; Langer & Moldoveanu, 2000) and flow (Csikszentmihalyi, 1990; 1997; 2000; Csikszentmihalyi & Kubey, 1981; Kubey & Csikszentmihalyi, 1990) were used to discuss the cognitive outcomes of this study.

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CHAPTER II

REVIEW OF LITERATURE

> The world we have created is a product of our thinking;
> it cannot be changed without changing our thinking.
> ~Albert Einstein

> One of the ways we can shape the future of media culture is by resisting such disempowering approaches to media literacy education. We need to rethink the goals of media literacy education so that young people can come to think of themselves as cultural producers and participants and not simply as consumers, critical or otherwise.
> ~Henry Jenkins, *Convergence Culture*, 2006

The goal of this literature review is to provide discussion of all the relevant foundational aspects of this study. This dissertation study is conducted within the framework of media literacy curriculum outcomes and cognition. It is concerned with what may occur *within* students who participate in a media literacy curriculum that emphasizes persuasion, advertising and production. The first section addresses optimal media literacy outcomes within the context of flow theory. The second section proposes that mindfulness may be a precursor to flow when consuming television advertisements. Although many possible outcomes of a media literacy curriculum may be studied, the elaboration likelihood model of persuasion is presented as a framework for understanding the various elements of the cognitive process as related to advertising consumption. Finally, media education curriculum approaches are presented in order to situate this study's curriculum materials and pedagogical approach within a larger educational context.

Media Literacy and the Quality of Life

Individuals are driven to participate in activities and relationships which promote positive feelings – feelings of happiness which may depend upon the situation, the other person, or the external environment. According to one conceptualization, true happiness comes from within the individual and is a structured internal experience created during moments when individuals are able to focus on goals that are clear while applying skills so that there is a challenge involved. This experience is also known as flow. Csikszentmihalyi (1990) argues that almost any activity can be experienced as a form of flow.

How we spend our time determines – to a large extent – whether or not feelings of happiness will be experienced. Today, the average 8-18 year old spends approximately 6 ½ hours a day consuming media in one of its various forms (Kaiser Family Foundation, 2005). If for no other reason than the volume of time spent with the media, the media have had and continue to have a tremendous influence on our lives. The channels and tools used to communicate continue to exponentially grow, but our understanding of the impact they have on our lives – our cognitive states and our happiness – remains largely ignored by the general population.

Scholars from various fields of study continue to search for answers for how educational approaches focused on learning about and with media can improve the quality of life. Specifically, media literacy scholars argue we must teach individuals how to better engage with media texts (Considine, 1995; Hobbs, 1997; 1998; Jenkins, 2006; Kubey, 2000a; 2000b). While their goal is not necessarily to promote happiness, it is to encourage the development of new paradigms we can use in our processing of media

content. By encouraging media consumers to think critically about different types of information received through the media, we promote new ways of understanding the impact media may have on our individual and collective lives. However, Jenkins (2006) argues that critical consumption is not enough. We must develop educational approaches which promote cultural empowerment – providing our youth with a sense of autonomy and agency. In order to do this, we need to examine those aspects of our environment which shape expectations, desires and motivations. One such element is advertising.

Daily, we are sold products and services by corporations who study us (Kramer, 2006). In doing so, they understand our deepest psychological desires and needs (DelVecchio, 1997). Once identified, they then attempt to meet and manipulate those needs with any number of products and/or services. As consumers of media, we must develop the ability to process media, specifically persuasive media, mindfully. Advertisements are a form of media most people tend to discount or ignore. Yet, millions of dollars are spent in the attempt to persuade us to want or buy products and services. Because advertising is typically negatively perceived, it is more likely to be overlooked or easily dismissed. This is even truer when considering subject matter for teaching literacy in the language arts classroom. If advertisements are used, the intention is to explore how advertising exploits us. However, it is because advertising is so easily dismissed and perceived as exploitive that is extremely important to be ever more mindful of it.

Media education curriculum approaches typically teach production and critical consumption skills. “A media literate person – and every one should have the opportunity to become one – can decode, analyze, evaluate and produce both print and electronic

media" (Aufderheide, 1999, p. 79). However, ability alone is not enough. The audience must also be motivated to process what they view, read, or hear. Potter (2004) argues, "the set of knowledge structures by itself does not indicate media literacy; the person must *actively and mindfully* use the information in those knowledge structures during exposures to media messages" (p. 61). Media literate individuals must be *able* and *motivated* to analyze and evaluate media.

Flow Theory

Few of us are intrinsically motivated to process advertisements. Kubey & Csikszentmihalyi (1990) argue "the *flow* state…is in many ways the opposite of the viewing experience" (p. 141). However, if individuals are motivated and able to process advertisements they may then be able to cognitively engage with them in more meaningful and mindful ways. Developing the intrinsic motivation to process advertisements, specifically television advertisements, is a challenge for at least two reasons. First, scholars argue that television consumption is one of the primary leisure activities people engage in for relaxation. Unlike other activities where relaxation is experienced, television watching does not promote heightened cognitive and potency states (Csikszentmihalyi & Kubey, 1981). In other words, viewing suppresses feelings of agency or activity. Second, television viewing is perceived to require less skill than eating (Kubey & Csikszentmihalyi, 1990).

Activities which are perceived as enjoyable and challenging are more likely to produce flow. "The metaphor of flow is one that many people have used to describe the sense of effortless action they feel in moments that stand out as the best in their lives" (Csikszentmihalyi, 1997, p. 46). Unlike the concept of happiness which focuses on

external situations and circumstances, flow emphasizes internal states which promote growth in consciousness (Csikszentmihalyi, 1990). Flow is a state of deep absorption in any activity that is inherently enjoyable (Csikszentmihalyi, 2006). In order for a flow state to be reached, individuals must perceive the activity with which they are engaged to be worth doing for its own sake (even if no further goals are reached) and the activity needs be pleasurable (Nakamura & Csikszentmihalyi, 2002). Skeptics may ask why any one would want to experience advertising consumption as a type of flow experience. Considering the amount of time spent consuming media and the many possible effects advertising is blamed for, learning how to enjoy our consumption may possibly lead to a better quality of life.

"The quality of life does not depend on happiness alone, but also on what one does to be happy" (Csikszentmihalyi, 1997, p. 22). In contemporary society, young people are in school for approximately 7 hours a day and spend another 6.5 hours a day consuming electronic media. Our youth spend a considerable amount of their waking lives with media or in school. By harnessing everyday experiences for our youth, we create an environment where opportunity for learning and growth exist in each moment. Many media education advocates believe these moments can promote feelings of empowerment for the audience. When individuals consciously realize they are in control of and responsible for their own thoughts, actions, beliefs, and attitudes persuasive communication techniques are less powerful. When the audience is self-aware and mindful while viewing, the advertisers lose the ability to manipulate basic needs in order to sell a product (Maslow, 1943). Media education curriculum approaches not only provide students with the skills they need to effectively analyze, evaluate and produce

media, they also provide opportunities for teachers to engage students in the classroom. Media literacy curriculum approaches may provide both the content and the context to critically engage contemporary students.

Shernoff, Csikszentmihalyi, Schneider and Shernoff (2003) investigated how adolescents spent their time during the school day and the conditions under which they reported being engaged. Their findings reveal "increased engagement when the perceived challenge of the task and their own skills were high and in balance, the instruction was relevant, and the learning environment was under their control" (p.158). They also found students were more engaged when involved with group work. Media education provides opportunity to increase engagement in the classroom and provides the benefit of improving the quality of one's life outside of school.

Flow theory is concerned with the quality of experience and contends that experiences are most positive under conditions where the perceived challenges of a task and a person's skills to perform that task are in balance. It also considers mood or affective states (happy, cheerful, satisfied, etc.) experienced during an activity, arousal factors (i.e. alert, active, strong, free), level of concentration and the motivation to engage in the activity (Csikszentmihalyi,1990; Csikszentmihalyi & LeFevre, 1989). Flow activities are those which produce enjoyment. When people enjoy what they are doing, generally, they are happier.

Flow experiences require effortless concentration, they include activities where goals and rules are followed, and challenge is involved (Csikszentmihalyi, 1990). The participants are engaged with the activity, feel confident in their skills and enjoy what they are doing. Feelings of flow are typically not experienced when people are involved

with passive leisure activities such as watching television (Csikszentmihalyi, 1997). Kubey & Csikszentmihalyi (1990) argue that the viewing experience is an example of a non-flow activity. If, however, the challenge and skills required to watch television, and in this study advertising, were developed and taught would consumers be more likely to enjoy flow experiences while viewing?

Theoretically, if conditions are created where the viewing experience is challenging and skills are high, an individual should be able to have a flow experience while consuming any type of media content. Practically, however, advertisements are typically not created for audiences to really think about them. Media consumption happens to be an activity we do daily but have been provided with very little education on how to do it better, so that the activity is more challenging and less passive. We sit in front of the television, listen to the radio, surf the internet and really don't think much of it. Are there better ways to approach the viewing and the consumption experience? The answer to this question is important if only for the fact that we spend so much of our waking lives doing it.

In order to answer this question, we must understand how advertising works, how advertisements are cognitively processed, and how media education curricula may promote a different type of consumption experience – one where viewers are challenged, engaged, and need to apply critical thinking skills so that a real sense of enjoyment can occur. For some, the idea of reaching enjoyment while viewing advertisements may seem far reaching. The goal to keep in mind is that flow is the ultimate experience. Not everyone experiences it for every type of activity where a flow state can be achieved. If we aim for optimal experience while viewing even when not achieved, mindfulness may

be the middle ground. If we conceptualize the viewing experience on a continuum, apathy/source discounting/heuristic processing on one side and flow on the other, mindfulness falls somewhere between the two.

Mindfulness and Media Literacy

Mindfulness and flow share similarities but vary in terms of feelings associated with each state. Flow states are considered to be optimal experiences. Mindful states involve a process of drawing novel distinctions, paying attention to details, and being aware of context in the present moment (Langer & Moldovenue, 2003). Mindfulness is considered a process in which one engages in present moment awareness. Instead of automatically processing information, mindful individuals are actively involved in differentiation. Mindfulness encourages creating new categories and making finer distinctions. Flow involves affective states, challenge and application of skills. Mindfulness does not necessarily require that the individual enjoy the process, just that he or she participates in it. In order to participate in mindful media consumption, the student must recognize there are skills involved. Then, he or she must be able and willing to apply those skills within a context. The skills required to view mindfully (i.e., exhibit media mindfulness) are not static. Media mindfulness is an on-going cognitive process. The viewer must constantly see new and novel elements in the media he or she consumes. It is important to note not all media literacy approaches will encourage media mindfulness. Some approaches may actually prevent it. A specific media literacy paradigm, advocated in this study, is required in order to facilitate media mindfulness. This will be discussed in a later section.

The concept of mindfulness has been applied in a variety of contexts including education, business and health (Langer & Piper, 1987; Langer & Imber, 1979; Langer 1993; Timmerman, 2002). In education, mindfulness has been suggested as a methodology which is more effective and more enjoyable than traditional approaches (Langer, 1993). It is a particularly useful construct to consider because it underscores why effective media education is important to the future health of democratic society. Being mindful of media content and context means that the consumer is aware of what is seen, heard or read and is constantly negotiating meaning by drawing novel distinctions. According to Langer & Moldovenu (1999):

> It doesn't matter whether what is noticed is important or trivial, as long as it is new to the viewer. Actively drawing these distinctions keeps us situated in the present. It also makes us more aware of the context and perspective of our actions than if we rely upon distinction and categories drawn in the past. (p. 2)

Viewers engage with the messages and are able to go beyond merely understanding that, for example, an advertisement is a form of persuasion. "Mindfulness is a process in which one views the same situation from several perspectives" (Langer, 1993).

Langer (2000) argues "the way we initially learn sets us up for mindlessness or mindfulness" (p. 220). This is important when we realize most of us never really "learned" how to watch advertisements in any other way than by viewing them. Occasionally, students are taught about the manipulative mechanisms used by advertisers to shape opinions and encourage consumption behaviors. Typically, younger students are not taught to develop an appreciation of advertising. They are not given standards or rules by which to judge the effectiveness, creativity, or ingenuity of a particular ad. For the very young, it would not be possible to teach. The activities must be cognitively

appropriate. Research indicates that young children are not capable of differentiating television programs from an advertisement (Dorr, Graves & Phelps, 1980; Healy, 1990; Kunkel, 2001). The approach advocated here is developmentally appropriate for teenagers and adults learners.

Langer (1997) argues most of what we learn we mindlessly accept because it is given to us in an unconditional form as though it is true, independent of context. Developing a mindful approach requires that we question what we think is true. The concept of mindfulness is related to certain psychological states: openness to novelty; alertness to distinction; sensitivity to context; awareness of multiple perspectives; and a present moment orientation (Langer, 1989; 1993; 2000; Langer & Moldoveanu, 2000). By making the common experience of viewing advertisements uncommon, new ways of seeing (i.e., cognitive processing) become possible. Mindfulness requires thoughtfulness, awareness, and attention to the present moment. Most of us simply don't bother to approach our advertising consumption in any other way than we already do – heuristically. In fact, most advertising is produced so we don't spend much time thinking about it.

Mindlessness is typically the result of over learned behavior. Langer and Imber (1979) argue that "individual components of a task become relatively inaccessible to consciousness and therefore unavailable to serve as evidence of task competence" (p. 2014). Therefore, mindless processing is more automatic and perceived to require less skill. Typically, an individual processes most information he or she comes in contact with in non-creative ways (Langer & Piper, 1987). We ignore the novelty or variety of perspectives from which any information may be interpreted. The result is a lack of

attention to details in the information presented. Reasons why individuals tend to process information in this manner vary. “Given the way we are traditionally taught, it simply does not occur to us to think creatively unless explicitly instructed to do” (Langer & Piper, 1987, p. 280). Although media consumption, specifically of advertising, is one of many sources of information where we may process mindlessly, it easily lends itself to more automatic processing.

The way advertising has been taught in the media education community may actually promote mindless consumption. Recognizing the stereotypical role of women as sexual objects in advertisements, for example, does not provide the additional insights into how a particular advertisement is creative or perhaps even funny. This is not to imply advertisements should be depoliticized. They should not. What is does suggest is that media literacy educators must consider more positive ways to teach about advertising. Currently, the majority of media literacy approaches teach only about the negative aspects of advertising. In doing this, we promote mindless consumption. If we teach students to dislike advertisements because they are stereotypical representations intended to manipulate us, how can we possibly encourage mindful consumption? Very few people would want to mindfully engage with any media content if it is automatically perceived as manipulative.

Potter (2004) argues that “people who are media literate spend less time in automatic processing of messages” (p. 61). Thus, students who participate in a media education curriculum should process messages differently as well as have different attitudes toward media than students who do not participate in a media literacy curriculum. The students who participate should be more likely to process using the

central route (i.e., they will think more critically and elaborate the message). Students who do not participate in a media literacy curriculum should be less likely to elaborate upon the message, because understanding that an advertisement may have multiple meanings and purposes opens the possibility of looking at advertisements in a broader context and from multiple perspectives. In order to remain mindful, it is necessary for the media consumer to consistently engage in new and novel ways of seeing or "reading" content. This needs to be taught, it does not automatically happen.

Media Consumption and Advertising

Students will spend much of their waking lives in contact with some form of media. Kaiser (2005) found, "TV and Music are the dominant youth media, with young people spending an average of three hours a day watching television (nearly four when videos, DVD's and prerecorded shows are included) and about 1 ¾ hours a day listen to the radio or to CD's, tapes or MP3 players" (p. 6). When we also factor in the amount of time spent playing video games and surfing the internet – we can begin to appreciate that most young people spend much of their leisure time consuming media in one of its various forms. While the media can have many positive effects on our development and growth, they can also contribute to attitudes, beliefs and behaviors that are damaging to our health (Buckingham & Moss, 1992; CDC, 2000; Kilbourne, 1991; Roberts, et al., 1980). Of concern is students' lack of ability and motivation to process media content they perceive as innocuous or mundane.

Many media messages are created and disseminated by corporations who primarily want audiences to consume their products (Kramer, 2006). Unfortunately, these same corporations neither have care nor concern for the potential harmful effects their

products may have on public or individual health. Organizations spend billions of dollars on advertising in the attempt to influence consumers through persuasion. As an example, advertising spending for the 2008 Super Bowl reached 2.7 million dollars for a 30 second advertisement. It should be noted that quite a few of these advertisements were for alcoholic beverages and energy drinks.

In order to encourage students to actively engage with advertisements, they need to be motivated *and* able to do so. Teaching students how to construct media is easier than motivating them to want to process or think about it. Psychologists agree that human beings are moved to action by two primary means: intrinsic and extrinsic motivation. Engaging students in a classroom so that they are intrinsically motivated to want to think critically about media must be done cautiously. All too often, media education approaches condemn the very media the students enjoy. By incorporating production activities into the media literacy curriculum, providing students with a critical thinking framework, developing an appreciation of the artistic form of the advertising, and learning the basic language of persuasion, students may develop their motivation to process. As noted previously, most human beings are intrinsically motivated to do things simply because they are enjoyable and fun.

Cognitive Response Approach

This study looks at media literacy from a cognitive perspective. Media literacy education is applied as an educational approach to promote mindful engagement with advertising. Issues of interest include: 1) whether or not media education promotes changes in student attitudes and understanding about advertisements; 2) whether or not media education influences the cognitive responses students generate when viewing an

advertisement; 3) whether or not students are motivated and able to think more critically about the advertisements they consume; and 4) whether or not they are more likely to experience the viewing of advertisements as a flow-inducing experience.

The first step of this process is to encourage an attitude change toward advertising and media consumption. Cognitive approaches to learning are concerned with "the importance of the role played by the thoughts that are elicited in a recipient by a message, both during and after the reception of that message" (Manstead & Hestone, 1995, p. 47). The cognitive responses elicited in the individual are the thoughts that arise as the content of the message is consumed and related to existing beliefs and feelings about the topic. The self-generated thoughts (cognitive responses) are presumed to mediate the impact of the message on attitude change regarding the attitude-object (i.e., product) (Manstead & Hestone, 1995).

A type of cognitive approach for understanding attitude change is a dual-process approach known at the elaboration likelihood model (Petty & Cacioppo, 1981). A dual-process approach expands the cognitive model to incorporate one of two processes believed to be responsible for attitude change, and it incorporates the idea that attitude change is based on individual perception of and responses to message arguments. Message arguments are any number of reasons one might use in support of the advocated position. Depending on the type of message and a variety of other variables that will be discussed, different types of arguments can be used in support of the advocated position. Important for understanding why media education might be effective in lessening the persuasive impact of advertisements while fostering critical thinking skills, is the idea that attitude change may result from factors (argument types) not yet addressed in the

ELM research. Media education may encourage receivers to use arguments in support of or against an advocated position by promoting thoughts regarding: the technical/production aspects of the message, stronger initial attitudes about the purpose of the communication (regardless of the product) itself, and mindfulness of the communication situation.

Elaboration likelihood model. ELM is primarily concerned with how the cognitive processing of a message (the route one takes) affects the persuasiveness or effectiveness of the message. Petty and Cacioppo (1986), credited with developing ELM theory, suggest that when individuals engage with persuasive communication, attitudes are formed or changed through two different routes of thinking: the central route or the peripheral route. The central route is best described as thinking critically and thoughtfully about persuasive messages. However, if one is to take a central route two conditions must be met. First, the individual must be able and motivated to process the message (Petty, Cacioppo, Strathman & Priester, 2005). Individuals who actively engage with a persuasive message are following a central route and are more likely to elaborate upon the message. Petty, Cacioppo, Strathman, & Priester (2004) explain elaboration as such:

> The effortful elaboration that is necessary to take the central route involves paying close attention to the relevant information in the message, relating that information to previous knowledge stored in memory (e.g., is the message consistent or inconsistent with other facts that I know?), and generating new implications of the information (e.g., what does this mean for my life?). The ultimate goal of this effort is to determine whether the position taken by the source has any merit. (p. 84).

Second, the cognitive responses or thoughts that a person has in response to a message might be favorable or unfavorable. The process of generating cognitive responses may be

thought of as a private dialogue in which the person reacts to the information presented (Petty et al., p. 84).

The peripheral route is a more automatic response to a message. Individuals exert little effort in processing or thinking about the merits or implication of a message; heuristic models are generally applied in the quick and efficient evaluation of a message. The audience member is less mindful of the communication. Individuals following a peripheral route primarily depend on simple cues within the message to make a decision about the persuasiveness of the message. They are engaged in very little elaboration. In other words, individuals do not engage in much private dialogue. They rely on simple cues contained in the message such as source attractiveness and message length. It would be impossible for each of us to process all messages using a central route. We encounter far too many decisions through out the course of a day to think and elaborate upon each and every one.

Motivation to think critically. The elaboration likelihood model of persuasion first considers if an individual is *motivated* to process a particular message. According to Petty & Cacioppo (1987), central route processing occurs "when a person thinks about and evaluates the issue-relevant information presented" (p. 6). When individuals are motivated and able to engage in issue-relevant thinking, the *elaboration likelihood* is said to be high. When ELM is high, "the probability of a person's following the central route to persuasion is increased" (p. 234). Various variables have been shown to affect a person's motivation to think about a message (Petty & Cacioppo, 1982). The first variable is issue relevance. The more relevant an individual perceives the issue to be, the more likely he or she is to think about it. Studies concerned with issue relevance look at

message cues to determine if the message will engage the person to think. For example, if I am interested in purchasing a car, and I view a car commercial, my relevance to process the message using a central route is increased. In this situation, I would be more likely to analyze and evaluate the arguments within the advertisement. In other words, I am mindful of the car advertisements because I am interested in purchasing a car. A goal of media literacy should be to encourage mindfulness of advertisements regardless of the situational relevance of the information presented.

ELM primarily defines issue relevance in terms of the attitude object (i.e., product) present within a message. However, from a macro-level perspective of media, issue relevance should also consider whether or not media consumers recognize the relevance of analyzing and evaluating advertisements more generally. Advertising appears rather innocuous to most people. Like the air we breathe, advertisements are such a common experience we generally do not take the time to consider the symbolic relevance of the context or content for many, if any, advertisements we see or read. Most people have not been encouraged to think about advertisements. It is more probable that they have been discouraged to think about advertisements. Little time or attention is paid to this aspect of our daily lives because for many it seems rather trivial. Yet, if we consider the amount of time and money advertisers spend developing, producing and disseminating advertisements to us – we must question why advertisements are so easily dismissed as a phenomenon to be studied and understood. Students need to recognize that advertising is not, in and of itself, “bad”. The ability to see advertisements in more than one way is an important part of the media education process.

According to ELM, motivation is also an aspect of personality. Petty & Cacioppo (1986) state, “people who are high in their need for cognition are motivated to scrutinize persuasive messages more carefully than people who are low in their need for cognition” (p. 5). Other variables affecting motivation include: the use of rhetorical questions in the framing of message arguments; the number of people presenting the message arguments; the number of people responsible for evaluating the message; and whether the advocated position is pro or counter attitudinal. Much ELM research has concerned itself with manipulating various characteristics of the source (the message) to determine how motivation to process the message might be affected. Although Petty & Cacioppo (1987) argue that need for cognition is an aspect of personality, when considered in a media context it is believed that need to evaluate and understand media can be taught. If, for example, an individual does not see the need to evaluate and think about media he or she most likely would not spend time or energy doing so.

Television and magazine advertisements are common place in society; many people consume them without much thought about larger contextual issues. Without such awareness, the motivation to process only those messages which are topically relevant will most likely hold higher relevance. Steiner (1988) argues in order to change the way individuals think about media texts a commitment to alternative or oppositional reading of texts may need to be taught and learned. Because mass communication depends on audiences reading and responding to texts through the preferred code, we do not typically think about more novel (i.e. oppositional) approaches.

Petty, Cacioppo, et al. (2005) recognize there are two types of personal relevance. Relevance of the issue “is situational because it is a momentary relevance” (p. 89).

However, “the relevance that stems from a more permanent interest in some issue or connection to the self…is better thought of as contained within the person rather than within the situation” (p. 89). This study argues that this type of personal relevance is related to an individual’s depth of media awareness. The more media literate a person is, the more likely he or she is to have the motivation to mindfully process media messages. In other words, motivation to think critically about media messages is inextricably linked to the attitudes individuals hold about advertising. Therefore, the following research question and hypotheses are considered in this study:

RQ1: Are students who participate in a media education curriculum more intrinsically motivated to process advertisements than students who do not participate?

H1: Students who participate in a media education curriculum will indicate more involvement with advertisements while viewing than students who do not participate.

H2: Students who participate in a media education curriculum will report higher levels of engagement with the advertisement than students who do not participate.

H3: Students who participate in a media education curriculum will generate more thoughts while viewing than students who do not participate.

H4: Students who participate in a media education curriculum will report more positive attitudes toward the media (in general) and advertisements (specifically).

H5: Students who participate in a media education curriculum will report a higher desire to think and hold opinions about the media they consume than students who do not participate.

Ability to process persuasive messages. Petty & Cacioppo (1982) state, "having the motivation to think about a persuasive message is not sufficient to insure that the central route will be followed, however. A person must also have the ability to think about the issue-relevant information presented" (p. 6). Ability, according to the ELM, is conceptualized as an individual's physical ability to consume a message without environmental distractions. "Other variables that affect a person's general ability to think about a message include factors such as: the medium of message presentation; the complexity of the message; the amount of prior information and experience with the issue; and others" (Petty & Cacioppo, 1982, p. 7). There are a variety of variables to consider in terms of ability.

This study is concerned with the amount of prior information and experience with the issue. The "issue" is defined as production and persuasion techniques used in print and television advertisements. The issue is, therefore, expanded to include the message itself not just the attitude-object content contained in the message. "Amount of prior information and experience with the issue" is defined as media literacy knowledge in terms of vocabulary, what to consider when viewing an advertisement, and an understanding of the production process. The more media literacy skills a person has, the better able he or she should be to elaborate upon the message and to think mindfully about it.

ELM theory does not consider the critical thinking ability of the receiver as a necessary aspect of the elaboration process. It does not delineate whether or not awareness and knowledge of the messages' construction and context influence the strength of the central route. The theory falls short in explaining how media literacy curricula may aide in the cognitive processing of advertisements. Therefore, we turn to critical thinking instruction to help explain how media mindfulness may be achieved.

Critical Thinking Instruction and Human Communication

Critical thinking, defined as "reasonable and reflective thinking that is focused on deciding what to believe or do" (Ennis, 1963, p 180), is a skill and a desire that must be developed and ignited. For a century it has been presented as a goal of education (Dewey, 1910). The importance of critical thinking instruction is not new. Scholars have studied the most effective learning strategies for teaching a variety of subjects. Bloom (1956) identified levels of learning one must proceed through if higher cognitive functioning and critical thinking are to be observed in learners. Bloom's taxonomy undergirds most educational practices in contemporary society. Although it may not be addressed directly, aspects of what Bloom considered important and necessary for learning have been and continue to be utilized in the development of classroom materials and learning objectives. In this study, Bloom's taxonomy was applied in the creation of the curriculum materials.

Bloom identified three domains of knowledge necessary for more holistic teaching and learning. The domains include: affective, psychomotor and cognitive. Good instruction should address all three domains (Anderson et al., 2001). Most teaching focuses on the cognitive domain which consists of: knowledge, comprehension, application, synthesis, and evaluation. Psychomotor development allows the students to

utilize tools (i.e., media production). While skills in the affective domain encourages students to think about how they and others feel. This allows for growth and awareness of attitudes, beliefs, and values.

Teaching how to think critically about media content is a much more recent phenomenon. The rationale for using media literacy instruction lies in its similarities to traditional critical thinking curricula. Before we can determine if media education is effective at developing the motivation and ability to think critically, it is important to understand how media literacy and critical thinking are related. Many of the skills considered necessary for thinking critically are similar to, if not identical to, those needed for media literacy. Critical thinking skills most similar to media literacy skills include: value judging, observation as well as credibility and assumption identification. Critical thinking skills provide students with the intellectual tools and standards from which media content can be evaluated.

The basic idea is that when we learn any content we learn the form of thinking required to evaluate and think about that particular content. For example, when we study history properly and deeply, we learn to think historically. When we study science, we learn to think scientifically. When we study the media, we learn to think communicatively. Thinking about the media and in this study advertising we come to a deeper understanding about the world, our communities and ourselves. We develop communicative competence in the context of our media consumption. Communicative competence includes the awareness of points-of-view and different ways of knowing and seeing (Burgoon, Berger & Waldron, 1999). In essence, media literacy is critical thinking within the context of communication. The media are our popular forms of expression. It

is reasonable and reflexive thinking focused on deciding what to believe or do with a particular message or medium. In order to do that effectively, we must be able to analyze and evaluate the messages using a set of critical thinking tools applicable to the communication discipline.

Critical thinking and issues related to persuasive communication are two of the oldest areas of study within human history. Socratic philosophy serves as a foundation for educational efforts in the development of critical thinking and persuasion. Through the development of a line of questioning which served to expose logical inconsistencies in individuals' claims to knowledge, Socrates emphasized the need for clarity and logical consistency in reasoning. His philosophy is particularly important because it emphasizes that just because a person speaks from a position of power, even if done rather convincingly, he may not be correct in his thinking. Much like media literacy, Socratic philosophy also asks individuals to examine the claims made by authorities. In a mass-mediated culture, our authorities include those who speak through the media. Various media use particular methods to convincingly convey information. Without a solid understanding of how communication mechanisms work to achieve this, individuals do not necessarily have the skills to accurately assess claims.

The S-M-C-R model of communication highlights the importance of this process. Specifically, the channel through which a message flows determines how that message is constructed, how it is interpreted and how it is cognitively processed. If we want to effectively communicate, understanding how and why the message is constructed is necessary. It also requires cognitive flexibility to understand that others may have different interpretations. Socrates and Plato understood that in order to be a learned

person, one had to be able to persuade through speaking. Contemporary scholars argue that in order to be a learned person in the 21st century, one must be media literate (Alvermann & Hagood, 1993; Duncan, 1994; Hobbs, 1997; 1998; Jenkins, 2006; 2008; Krucsay; 1998; Lewis & Jhally, 1998; Meyrowitz, 1998; Tyner, 1998)

Most would agree learning how to think critically is the result of education and training. However, a limited number of educators encourage students to critically analyze and evaluate the media, specifically persuasion and advertisements. More often than not, contemporary educational efforts focus on the basics of reading and writing the printed word. While invaluable, this type of education is incomplete. Parents, more often than not, are not providing their children with the tools either. This lack of attention to media literacy is particularly ironic considering that much of what we know or think we know is the result of our interaction with the media.

Corder-Bolz (1980) argues that primary and secondary agents teach us how to navigate through life. Primary agents are people who interact with us during the course of a day. They provide information, values, and models of behavior. They are able to reward or punish our actions (e.g., teachers, parents). Secondary agents teach and influence us, but they are not able to reward or punish us (e.g., television, movies). When our primary agents ignore the influence of the secondary agents in providing information about how to act, eat, dress, and behave, they overlook an important aspect of socialization in contemporary society. By ignoring the influence of and interest in the mass media, contemporary educational efforts are incomplete (Considine & Haley, 1999; Hobbs, 1998; Silverblatt, 1995).

While there are various definitions and ways to conceptualize critical thinking, the majority of critical thinking assessments have been based on paper and pencil tests. Students demonstrate critical thinking ability by reading communications and identifying flaws in the reasoning provided. This study expands the concept of literacy to include visual and auditory texts. As a consequence, it necessitates expanding the traditional definition of literacy.

Expanding the Definition of Literacy

Educators agree that the most important skill students must develop in order to function in society is the ability to read and write the printed word. If we extend the definition of literacy to include visual and auditory information, as many scholars have suggested we should (Hobbs, 2001; Postman, 1985), those students who have mastered reading and writing but do not critically evaluate their own media consumption beyond print are, in many ways, 21st century illiterates. Illiteracy is the inability to encode and decode the printed word. Twenty-first century illiteracy is the inability to encode and decode all electronic, pictorial and auditory media products critically. Postman (1985) argues "intelligence is primarily defined as one's capacity to grasp the truth of things, it follows that what a culture means by intelligence is derived from the character of its important forms of communication" (pp. 24-25). In order to "grasp the truth" of things, critical evaluation and analysis of media products is a necessary aspect of contemporary literacy. Media and critical thinking scholars have been concerned with the lack of analysis and evaluation of written texts for many years (Dewey, 1910; Ennis, 1963; 1990; 1993; Kulthau, 1997; McLuhan, 1964; Meyrowitz, 1998).

Many media literacy advocates believe that traditional definitions of literacy ignore the literacies necessary for a technological world (Hobbs, 1997). Tyner (1998) argues that computer, technology, and network literacies encompass information, visual and media literacies. She considers all of these literacies to be "literacies of representation." She argues that they easily lend themselves to build on alphabetic literacy. As the world grows increasingly more symbolic, students need new and better ways to evaluate the information they receive. Because of the demands of our technologically oriented culture, we are expected to synthesize large amounts of information in a variety of media formats on a daily basis. Without a thorough understanding of the processes of communication and the various strengths and weaknesses of each medium, we are at a clear disadvantage in being able to synthesize, analyze and evaluate the content of what we see, hear, and read quickly. Educators and scholars continue to question whether we are properly educating members of society to be conversant in our various forms of communication.

Buckingham, Hey and Moss (1992) argue that using the term literacy in the context of television-related curriculum "often enables us to get away from behavioral notions about what television does to children" (p. 128). They argue for a social literacy--"a view of literacy as a form of *communicative competence*" (p. 129). Their perspective raises interesting questions about how the process, context, and production of communications relate to issues of media literacy. Silverblatt (1995) states, "in order to become media literate, you must first develop an understanding of the communication process" (p.13). He provides a vision of media literacy that is rooted in communication studies and is extremely helpful in integrating the various paradigms. He identifies four

keys to interpreting media messages: process, context, framework, and production values. The keys are aspects of media literacy which elucidate important knowledge a media literate person should possess.

If critical thinking is defined by the discipline (i.e., biology, sociology, history, psychology) of thinking that informs it, we must consider how our understanding of the processes of communication influence our ability and motivation to process persuasive messages. Unfortunately, communication is not something that many people tend to spend much time thinking about. We learn how to speak at age two and take this ability for granted because we can communicate. While we spend time in school learning how to read and write, we do not think about our intrapersonal, interpersonal or media consumption habits. Communication is a complicated process that requires an informed understanding of the roles it plays in our construction of self and society.

Media literacy involves an understanding of the mass media's communication systems, logic, biases, perspectives, and points of view. It asks us to respond with caution and healthy skepticism instead of simply accepting or rejecting the story or advertisement we see, hear, and read because it may be familiar. The media literate person respects and understands how mass communication influences, teaches, persuades and motivates us both consciously and unconsciously. As such, this study assumes media literacy is critical thinking within the context of mass communication.

Although media literacy is a legitimate area of study in and of itself, it lacks an overarching coherent framework from which outcomes can be quantitatively measured. There are a variety of different approaches for teaching media literacy. Not all of the approaches would necessarily produce the same types of thinking. This study considers

the ability and desire to think critically about advertising as one aspect of media literacy. The more one thinks about and elaborates upon messages he or she receives through various media, while applying standards to his or her thinking, the higher level of media literacy an individual would exhibit. With such mechanisms in place, the possibility for mindful consumption and flow experiences are more probable.

Approaches to Media Education

In theory and in practice, the learning objectives of media education programs vary. The manner in which an educator, policy maker, parent or non-profit group conceptualizes media literacy will determine how and why media literacy should be approached pedagogically. Piette and Giroux (1997) argue that an individuals' understanding of the mass media influences his or her media education paradigm. They suggest that although individuals do not consciously decide to believe in one mass media theory or another, approaches to teaching about and with the media are reflected in what a person theoretically believes about the influence of media in the lives of media consumers. In essence, two mass media theory issues inform the paradigms: the passivity or activity of the audience member and the perception of power or influence of the media.

Masterman (1997) and Masterman and Mariet (1994) identify the major approaches within European media education curriculum over the past fifty years. The following conceptualizations provide perspective regarding the current state of media education curriculum within the United States as well. The paradigms include the following perspectives: media as agents of cultural decline; media as popular arts; and media as representational systems. Each paradigm reflects different worldviews about the influence, impact, and importance of media in our lives as well as our culture. Hobbs

(1998) argues that one of these paradigms is at the heart of any media education curriculum. Each perspective will encourage different ways of thinking about mass media products, symbols, influence, and purpose. It will also influence the types of outcomes important for analysis.

The media as agents of cultural decline. Proponents of the first paradigm, media as agents of cultural decline, see "media as virulent diseases that threaten the cultural and moral health of society" (Masterman, 1997, p. 21). Curricula that reflect this approach either believe the media are irrelevant or take a protectionist stance whereupon they teach cultural resistance. This pedagogy is also known as the innoculative or protectionist approach. Students are expected to discriminate media choices based on timeless values of high culture. Individuals who take the innoculist or protectionist stance believe that media education acts as protection against any negative effects media messages may have on an individual's behavior or psychological development. Effects research related to issues of violence (Centerwall, 1992; Gerbner, 1977), family values (Zillmann, 1994), body image (Kilbourne, 1999), desensitization (Linz, Donnerstein & Adams, 1989), and risk-taking behaviors (Brown & Walsh-Childers, 1994) are representative of the protectionist stance. It should be noted that many of the media education programs within the United States are oriented toward a protectionist position and use media effects research as the rationale as to why media education needs to be taught in schools and within the community.

However, other media educators believe that innoculist approaches to media literacy run counter to good pedagogy. "The teaching methods that result from educators

who see themselves as protecting students are ineffective in the classroom" (Hobbs, 1999, p. 19). Masterman (1985) and Buckingham (1990) agree that media education which disempowers students' interpretations and understanding of media messages loses its authenticity and relevance. Important here is the idea that media education should increase student motivation and interest in learning because it celebrates multiple and diverse interpretations of media texts. An innocultist approach does not provide students with voice and considers the audience to be relatively passive. As such, instructors more or less tell students what to think about media texts. This view perceives popular culture as somewhat uncivilized and repulsive. In doing so, it communicates to students that the programs they enjoy are irrelevant and that they can easily be manipulated by media messages.

Media as popular arts. The second paradigm, media as popular arts, celebrates certain kinds of popular texts over others. "When media education was taught from a popular arts perspective, it implied that some – but not all media was worthy of study" (Tyner, 1998, p. 115). Similar to protectionists' stance toward media's contribution to the decline of mass culture, the popular arts perspective indicated that certain media messages are, inherently, better than others. This idea, rooted in auteur or film theory (Sarris, 1979), validated the idea that certain popular arts within a particular medium deserve to be elevated above others. This approach, at its core, argues that students' tastes needed to be improved, and it is up to the teachers to do it. Although the value question is of central concern, the paradigm does not question whose values are being promulgated.

The value of the text is considered to be a feature of the text itself, not a set of arbitrary conventions imposed by those in positions of power and authority. Gans (1999)

argues, “The culture war is, however, not just about high culture and popular cultures. It is really a debate about the nature of the good life, particularly about which culture and whose culture should dominate in society” (p. 4). As evident in this paradigm, this approach is highly dependent on the “good taste” of the teacher. The approach is problematic for three reasons. First, certain texts are regarded as relatively worthless. For example, a teacher operating out of this paradigm would be less likely to show television programs such as The Simpsons or South Park during a lesson. In fact, many U.S. educators express concern about showing such programs in class (Hobbs, 1997). What will parents say to the educator after children return home and reveal that they watched 15 minutes of either program in class? Second, by ignoring or discounting cultural products enjoyed and consumed by students, student-centered learning is less likely. Research by Cooper & Stewart (1982) report the specific language used by the teacher in the classroom impacts students’ attitudes. They state, “each child needs to know that he or she is a person whose opinion is valued and whose feelings are respected” (p. 23). Third, by ignoring certain media texts, deeper questions about the purposes and uses of such texts are not available for use. From an audience perspective, viewers are perceived as somewhat less passive, but still in need of instruction as to what is considered “good” and “bad” media.

Masterman (1997), Buckingham (1990), and Considine and Haley (1999) argue that media education should be student-centered, not teacher-centered. It is the teachers’ role to guide the student through the thought process. The teacher should not tell the student what to think, but what to ask about specific media messages. Teaching media from a popular arts perspective does not encourage student reflection; it merely

contributes to a reproduction of the values of the status quo. Although teaching media from a popular arts perspective does not demonize all media, it still frowns upon many media texts enjoyed by students and parents alike. It does not encourage students to ask more critical questions regarding who created the message and for what purpose.

Media as symbolic systems. The last paradigm, the concept of media as representational or symbolic systems, best exemplifies what a media education curriculum should ultimately address. This study applies this paradigm in the overall design and delivery of the curriculum and research. There are a variety of assumptions embedded within the paradigm which influence the overall design of this study. First, all media are considered to be texts worthy of study. An advertisement is not any more or less important than, for example, information received from news broadcasts. Second, the audience is considered an active meaning maker in what is seen, heard or read. Therefore, teaching students how to apply critical thinking standards to media products helps learners engage in deeper meaning-making processes. Third, this approach is not as common in the United States as it has been in other countries. However, as media literacy is integrated into more state curriculum, it is likely that teachers will recognize the value of teaching media as a means toward developing critical thinking skills instead of trying to "inoculate" students from the harmful effects of media.

Masterman (1994) argues that research in Europe during the 1970's heightened awareness of the media as representational systems. Barthes (1973) is credited with applying semiotics to media texts. Tyner (1998) argues semiotics established that "media are not invisible conduits for information, but shape content in specific, representational ways. They are not 'windows on the world', but carefully manufactured products" (p.

115). Looking at media as texts to be deconstructed opens them up to critical analysis. Masterman (1997) states, “Another way of saying this is to say that media are symbolic systems; not simply reflections of a reality which must be accepted, but languages which need to be actively read, and interrogated” (p. 28). From this perspective, audiences are considered active meaning makers of what they see, hear, and read. It is not so much what the media do to the audience, but what the audience does with the media messages they consume. However, the audience member must be intrinsically motivated to think about the text. It is a more holistic approach to understanding the complexity of the relationships between messages and audiences, but it does not address the issue of the audience’s motivation to process different types of content.

Media education approaches should depend on who and what is being taught. Each of the paradigms mentioned reflects issues relevant to both the European and U.S. media education experience. However, Europe is much more advanced in their delivery of media education. Their media literacy curriculum is most illustrative of the “media as representational systems” perspective. Many U.S. educators either operate from the protectionist paradigm or the popular arts perspective. However, as time progresses, more U.S. educators are moving toward approaches that question the ideology and political economy of media institutions (Considine, 1999; Tyner, 1999). This is most evident in the recent split of the Action Coalition for Media Education (ACME) from the American Media Literacy Association (AMLA).

The AMLA is the first large scale United States national non-profit organization of teachers, commercial media organizations, practitioners, and academics interested in furthering the importance of media literacy curriculum approaches. In February 2002,

ACME supporters announced their departure from AMLA. Media literacy is central to ACME's mission, but their aim is to develop U.S. media literacy initiatives and curriculum that will exist independently of media organizations, and focus on issues related to corporate censorship, commercialism in the schools, and news monopolies. Obviously, there is disagreement among media education practitioners and researchers about the purposes and goals of media literacy instruction.

Media Education in the United States

Although the U.S. is unique among western nations in its virtual absence of media education in schools (Brown, 1991), we are making progress. Kubey and Baker (1999) found that 48 of the 50 states now have some form of media literacy instruction as part of their curriculum requirements in social studies, language arts, and health. However, just because standards exist in curriculum frameworks does not mean that teachers have the skills or desire to teach media literacy. Once clear linkages can be established between media literacy curriculum and outcomes on state and national tests, media literacy curriculum should be more widely accepted in the United States.

However, outcomes of media literacy curriculum depend on how it is taught and where it is placed in the curriculum. Duncan (1994) states,

> Media literacy should not be considered as an add-on to the already crowded curriculum. A truly interdisciplinary activity, media literacy should be conceived as a means of facilitating the integration of critical thinking skills, aesthetics, the study of value messages, and the study of the social and political implications of media texts. (p. 32)

An interdisciplinary concept, media literacy curriculum can be developed and implemented in several different areas of the curriculum. For example, Considine (1995) offers the following topics for inclusion in various aspects of a school's curriculum:

aesthetics and appreciation (language, grammar, and vocabulary of film, television, the Internet, etc.); production (hands on experience with video, photography, websites, etc.); citizenship (in relation to critical thinking skills, political advertising, news values, etc.); protection (issues related to health and resistance to the media's influence); and vocational education (technical skill development). Masterman (1997) provides three contexts for these areas. He argues media literacy can be taught as discipline (e.g., media studies or television production), as element within an already existing curriculum subject (e.g., analysis of political advertisements in social studies classes), or across the curriculum (e.g., critical thinking skills or as an extension of literacy in all subjects).

However, there is still concern over what will be taught and how it will be approached. In addition, relatively few instructors teach media courses exclusively. Many must combine aspects of the media into their core subjects – literature, social studies, or political science. According to McBrien (1999), "teacher's feel unprepared to teach media literacy, and they don't have time to collect media materials that they would need for examples" (p. 77). Teacher education programs that support media literacy are growing, but are not widespread. In addition, very few textbooks exist for teachers to use. This is quite relevant to researchers interested in studying media education outcomes. Variability in teaching styles, use of materials, and purposes of media education programs has limited the ability to conduct large-scale efficacy studies.

Research on the Efficacy of Media Literacy

Media education faces its own research challenges. First, media literacy has not traditionally been taught in the schools. Educational theorists who study critical thinking curriculum recognize there is a great need to find better ways to teach critical thinking

skills (Ennis, 1963). Media education practitioners believe media literacy education can help foster critical thinking skills, but little research has been done to quantify their results. By addressing needs in both the critical thinking literature and the media education literature, this study hopes to identify: the effectiveness of a media literacy curriculum at cultivating the motivation and ability to think critically and mindfully about advertising.

The research literature on media literacy efficacy is lacking. To date, the majority of literature has focused on why media literacy is important or what should be taught from a curriculum perspective, but very little exists on the efficacy of such a curriculum. There are a few reasons why this is the case. First, media literacy does not have a "theory" or overarching set of coherent and agreed upon objectives. Littlejohn (1992) argues that in the early stages of theory development mostly taxonomies exist. Taxonomies identify parts of the process under investigation. Media literacy scholars and educators have presented quite a few taxonomies, but are still negotiating what it means to be media literate in contemporary society. Debates within the field of media literacy contribute to the issue of definition (Hobbs, 1997).

The second reason that efficacy research may be scant results from the fact that only one college in the United States (Appalachian State University in Boone, North Carolina) has a formal Media Education graduate program. Although programs at other universities show promise, the academic community has yet to embrace the issue of media literacy outcome research. While case studies that document classroom practices have expanded (Hart, 1992), and media literacy teachers share wonderful stories about students' interest in media literacy programs, little empirical evidence is available

(Hobbs, 2001). Questions as to what to study (attitude change, behavioral change, or skill improvement) and how to study it remain largely unanswered.

Scholars speculate (Hobbs, 1997; Kubey, 1998; Singer & Singer, 1981) that media literacy approaches may have an impact on students' motivation to develop more sophisticated reading, writing, and analysis skills. However, "research on media literacy outcomes continues to be constrained by the lack of large-scale implementations available for observation and evaluation" (Hobbs & Frost, 2001, p. 3). Hart (1991) states, "we are very far from having any stable basis for the evaluation and effective use of [media literacy] resources" (p. 105). Buckingham, Hey and Moss (1992) state, "there has been a growing awareness among media educators that there is in fact very little to back up these [media literacy efficacy] claims, and that the process of teaching and learning about the media is much more problematic than some of its advocates would have us believe" (p. 125).

However, there is some evidence to suggest that media literacy curricula do have positive outcomes. Hobbs and Frost (2001a) found that "students' critical thinking skills are strengthened as a result of an intensive educational curriculum that explicitly uses the process of 'asking critical questions about what you watch, see and read' as an instructional framework" (p. 22). In a related study, Hobbs and Frost (1998) found that "classrooms which engaged in more extensive and comprehensive approaches to integrating media literacy skills into existing curriculum had students with higher levels of information processing skills including recall and comprehension of ideas presented in a video" (p. 123). In another study, Hobbs and Frost (2001b) studied 7th grade Australian students who participated in a 14-week media instruction curriculum. They found that

students whose media literacy course work was more in-depth performed better at basic media literacy competencies.

Early media literacy research focused on elementary school age children and identified positive outcomes. Roberts et al. (1980) found that "it is possible to teach children to be more critical of commercial appeals by showing them instructional films that teach how commercials attempt to persuade" (p. 102). Rapaczynski, Singer and Singer (1982) provide evidence that media literacy lessons adapted to the cognitive level of the student led to an increase in knowledge about how television works. Students' comprehension about camera effects, special effects and editing substantially increased as a result of their curriculum. Dorr, Graves, and Phelps (1980) found that children exposed to a media literacy (critical viewing) curriculum were able to apply the concepts they learned to discussions about television reality, but were not changed in their social attitudes.

In addition, Kubey and Marcello-Serafin (2001) report that elementary school students who were introduced to a media literacy curriculum became more cautious about claims made in advertisements and on the Internet. Students also reported being more aware of the commercial influence of media in general. In light of such findings, the question as to *why* students process media messages differently remains open for debate.

Media Education and Motivation

Ability and motivation to think about media are prerequisites necessary for critical thinking to occur. Students have to be motivated to want to think critically about the media. Much like going to the gym or working out, we know we should exercise but many of us lack the motivation or energy to get ourselves to the gym. One of the reasons

that media education may encourage critical thinking to occur is because it may motivate students more than other forms of teaching. Teachers who use media education in their classrooms may be more likely to motivate students to want to think critically. Talking about the students own internal life – the one spent in front of the television or the computer – in the classroom has tremendous potential for growth and learning. Teachers of media education report that students become excited and motivated to learn when examples used in class come from a variety of media sources especially when the examples are relevant to their day-to-day media consumption tastes (Considine, 1999; Kubey & Marcello-Serafin, 2001). By making critical thinking skills relevant in the day-to-day lives of students we invite them to engage in critical thinking and mindful consumption on a daily basis.

Media Education & Ability

Critical thinking theorists argue that it is a poor assumption to think all instruction can teach and measure all aspects of critical thinking (Ennis, 1993). This is good news because it implies that curriculum can and should encourage different aspects of thinking. Media literacy scholars agree there are at least five core concepts students should use to critically examine media products (Considine, 1995; Hobbs; 1997). They include the following: 1) all messages are constructions; 2) messages are representations; 3) messages have economic purposes; 4) individuals interpret messages differently; and 5) media have unique characteristics. From the five core concepts, five key questions were developed to encourage critical thinking. They include: 1) Who is the author and what is the purpose of the message?; 2) What techniques are used to attract your attention?; 3) What lifestyle, values and point of view are represented?; 4) How might different people

interpret the message differently?; and 5) Who is the target audience? It should be noted the curriculum used in this study was developed using the core concepts and questions of media literacy.

Research Questions and Hypotheses

The review of literature presented here suggests media literacy education curriculum may help students to develop motivation and ability to process advertising. Using the theory of flow, the concept of mindfulness, and the elaboration likelihood model of persuasion, a new construct called *media mindfulness* was proposed. Media literacy curriculum approaches were discussed in order to identify how the approach taken in the classroom ultimately influences how student attitudes and beliefs may be shaped. Content covered within media literacy curriculum approaches vary tremendously. In this study, advertising and principles of persuasion were presented as ideal content for a middle school language arts class. Due to the number of advertising exposures, typically held negative attitudes toward advertising, and the degree to which advertisers exploit basic human needs to sell products, advertising-related content provided a unique opportunity to study cognitive processes, attitudes, media literacy skills, and motivation.

The review of literature presented and the rationale lead to specific research questions and hypothesis. In summary, the following research questions and hypothesis were considered in this study:

RQ1: Are students who participate in a media education curriculum more intrinsically motivated to process advertisements than students who do not participate?

H1: Students who participate in a media education curriculum will indicate more involvement with advertisements while viewing than students who do not participate.

H2: Students who participate in a media education curriculum will report higher levels of engagement with the advertisement than students who do not participate.

H3: Students who participate in a media education curriculum will generate more thoughts while viewing than students who do not participate.

H4: Students who participate in a media education curriculum will report more positive attitudes toward the media (in general) and advertisements (specifically).

H5: Students who participate in a media education curriculum will report a higher desire to think and hold opinions about the media they consume than students who do not participate.

RQ2: Do students who participate in a media education curriculum exhibit more cognitive complexity while processing advertisements than students who did not participate in the media education curriculum?

H1: Students who participate in a media education curriculum will exhibit more knowledge about the media.

H2: Students who participate in a media education curriculum will think more (types of thought) about advertising while viewing than students who do not participate in a media education curriculum.

H3: Students who participate in a media education curriculum will be more mindful of their viewing than students who do not participate in a media education curriculum.

RQ3: Do media literacy production activities have an effect on student cognition and attitudes?

H1: Students who participate in a media education curriculum will have more negative opinions toward tobacco use than students who do not participate in a media education curriculum.

H2: Students who participate in a media education curriculum will be more enthusiastic about school and working collaboratively than students who do not participate.

CHAPTER III

METHOD

A quasi-experimental design was used to determine effects of the media literacy curriculum on participant attitudes and cognitive responses. Non-random assignment to control and experimental groups was used. Groups were already intact as determined by the school in which the research occurred. A mixed method design was used to obtain data regarding participant motivation and ability to process advertisements. As such, this study included both quantitative and qualitative research methods.

Five different types of research instruments were used to gather data: attitudinal questionnaires, semantic differential scales, vocabulary matching items, vocabulary application questions, and cognitive response thought-listings. A post-test only design was used due to the amount of time available to the researcher provided by the school district. Since the control group participated in three days of testing, but did not derive the "benefits" of the curriculum; it was not feasible for these students to miss additional classroom instruction time. In addition, the post-test only design avoided a possible interaction with the stimuli material or sensitizing effects. This design is frequently used in education research because it reduces the possibility of internal threats to validity.

Design

Non-random assignment was used because classroom assignments were determined by the school district. However, participants were randomly assigned to each teacher participating in the study. Two different teachers, both eighth-grade Language Arts educators, participated with two of their classes. The control group teacher was an

experienced male educator. The experimental group teacher was a younger, but tenured, female.

Two classes belonging to the younger female teacher participated in the five week curriculum as the experimental group. Two classes belonging to the older male teacher were used as a control group. Between 24-26 students participated from each of the four classes. Two control groups and two experimental groups (each group consisting of between 25-30 participants) were administered post-test measures over a three-day period. Depending on the question, total response rates in the study range between 86-91 students.

Access to the Population

It took approximately nine months from the time of initial inquiry to establish the program within the school district. The researcher submitted a proposal to the Superintendent of Schools. After the Superintendant of Schools for the district reviewed the study, the researcher was asked to participate in interviews with the Language Arts Curriculum Supervisor, the Assistant Superintendent and the middle school Principal. There were three meetings during which the school administration determined the value of the program for their students. The Board of Education was informed and agreed to the program.

The researcher was assigned, by the Language Arts Curriculum Supervisor, to work with a Language Arts teacher. Prior to being allowed to team teach the curriculum with the teacher, the researcher was required to apply for a Substitute Teaching License. Once the license was issued by the State of New Jersey, the researcher spent many days observing interactions in the classroom the year prior to the study. Observations occurred

during the Spring 2005 academic school year. At this time, various research instruments were tested for clarity. The curriculum implementation and data collection occurred during the Fall 2005 school year.

Selection of Language Arts Classes

Language arts classes were selected because the State of New Jersey Department of Education's Core Curriculum Content Standards requires students to be proficient in strand 3.5 "Viewing and Media literacy" (State of New Jersey Department of Education, http://education.state.nj.us/cccs/?_standard_matrix;c=3). As such, a media literacy curriculum falls under state guidelines and is, in essence, expected to be taught. While this may be the case, however, not all school districts include this type of instruction for students. Even if media education instruction is implemented, it can vary greatly within the school and the district. The proposal presented to the Superintendent stated that students would receive instruction on persuasive principles, specifically advertising. The curriculum also indicated that students would have the opportunity to produce their own 30-second animations. The proposed curriculum learning objectives were in alignment with the district's eighth-grade curriculum specifically because students are expected to study persuasive writing, reading and speaking principles during the eighth-grade year.

Cumulative progress indicators in New Jersey for the eighth-grade suggest students should be proficient in three areas: constructing meaning, visual and verbal messages, and living with media (for a list of progress indicators for eighth-grade, see Appendix N). The progress indicators were used as a guide in developing the curriculum and the research instruments. It should be noted that the researcher was involved with the development of the State of New Jersey's progress indicators and recognizes the

indicators are intimately related to core concepts and questions prevalent in the media literacy literature. In other words, the indicators were designed in order to engage student thinking within the media literacy tradition of evaluation and analysis of media content and tools.

Participants

The participants were eighth-grade language arts students from an upper middle class community in Morris County, New Jersey. Many students came from affluent homes with highly educated parents. Lazar Middle School in Montville, New Jersey is where the study occurred. In 2007, Montville was ranked 13th by *Money Magazine* in its list of the "Best Places to Live" in the United States, the highest ranked town in New Jersey.

Student ages ranged from 12 to 14 years. Of the experimental group, 64% were female [*n*=29] and 36% were male [*n*=17]. The control group consisted of 51% females [*n*=23] and 49% males [*n*=22]. Unequivalent gender samples was the result of assignment by the school district. It is unclear as to why the eight grade consisted of more female than male students.

All participants were enrolled in "regular" classes. In other words, these students were performing at their grade level. They did not receive or need remedial instruction nor were they in advance placement. This ensured that participants in both the control and experimental group were relatively equivalent in terms of placement within the school district.

Classroom group assignments. Although participants were randomly assigned to either the control or experimental group *teacher* by the school district, it may be the case that students in the experimental group liked their teachers more. The control and

experimental groups of students were on different teams (groupings of teachers) in the eighth grade. It was also revealed to the researcher, during the curriculum implementation, that the Social Studies and Language Arts teacher for the experimental groups regularly discussed work they were doing in class. The Social Studies teacher did, in fact, slightly alter his curriculum to include more media based examples during this study. This was outside of the control of the researcher to stop or prevent.

Treatment

Participants in the experimental condition participated in 18 fifty-minute lessons over a five week period. The classroom teacher for the experimental condition assisted the researcher with curriculum instruction. Daily activities included: lecture, small group work, homework, quizzes, and development of an anti-smoking animated public service announcement (see Appendix S & T for an overview of daily lessons).

The curriculum was a combination of lessons the researcher developed or adapted from a variety of media literacy educators, classroom activities the LA (language arts) teacher helped develop or suggest, and the production process provided by AnimAction Inc. In order to fully develop the curriculum, the Language Arts teacher met with the researcher on multiple occasions to review materials and make suggestions. The LA teacher did not participate in the production training.

Production process. AnimAction's founder and President, Clifford Cohen, of Hollywood, California, provided the researcher with training and materials to implement the production process which taught students how to create 30-second animated shorts (Appendix O for an overview of AnimAction's philosophy). AnimAction "gives young people the opportunity to experience the joys of collaboration and creativity through

animation" (http://www.animaction.com). The process developed and implemented by the company has been used with thousands of young people around the world. It was part of the overall design for the curriculum used in this study.

In order for the researcher to incorporate a production element into the curriculum, it was necessary for the researcher to be trained on the animation production process. The training for the researcher involved a two-day intensive workshop. The animation production process included: the development of a story (including identification of a target audience); storyboarding each scene; drawing and coloring each scene (this involved 10-15 drawings per scene and each short had approximately seven scene changes); capturing the drawings to a specialized software program; adding sound; and editing. The principles of message creation (i.e., the process of selecting a target audience and designing a message appropriate for that audience), in most cases, are identical across media. The animation process differed in terms of the technical skill required to organize and construct a story using only images. Students needed to be able to make a connection between how the visual elements of the message translated from the verbal story they wanted to tell in their animation. Because of this, the overall curriculum emphasized the ability to read advertisements as a type of story.

The production process for the students (from message selection to the completion of an animated short) occurred within a two-week period. Participants were involved with all aspects of the production process except the capturing of the drawings into the software. Participants could not participate in this aspect of the curriculum due to time. Because the curriculum was incorporated into traditional class time, the curriculum could not take more time than had been allotted by the school district.

The participants' curriculum varied somewhat from the original process taught by AnimAction. In order to facilitate instruction within limited blocks of time, organization was extremely important. Participants were assigned to work groups or teams. They were asked to imagine that they were an advertising firm and had to develop and produce an anti-smoking public service announcement to a target audience of their choice. In all cases, students either selected their immediate peers or high school age students as the target audience. Each team named their company. Within each team of six, roles were assigned (see Appendix MM). Students, in matched pairs, were either assigned as continuity checkers (responsible for the details in each drawing), overall organization, and sequencing checkers. Participants were graded on the final outcome of their animations. They were provided with specific responsibilities during the process and held accountable for completion of their section by the group and the teacher (Appendix LL). This was necessary because the teacher needed to provide grades for those students who participated in the study. After post-testing, students watched all of the animations created by their peers and received a copy to take home.

Prior to the production of the animated anti-smoking public service announcements, students spent approximately nine days (approximately half of the time for the entire curriculum) evaluating and analyzing advertisements (television and magazine) each morning. The first "warm-up activity" highlighted a particular learning objective for each lesson. The researcher and the teacher agreed this approach would help facilitate student learning so that they would feel prepared to create their own ads. It was also in alignment with how the LA teacher structured each class period with the students. The first five minutes were used to settle the students down and get them ready to work.

Throughout the curriculum, the following topics were covered: persuasion vocabulary (Appendix U); animation vocabulary (Appendix V); editing techniques; use of jingles (Appendices Y and Z); use of music; deconstructing and advertisement including techniques used to gain and keep attention (Appendices GG) ; target audience (Appendix CC); use of symbols (Appendix K); point of view; purpose of message (Appendix HH); intention/credibility of the author; representation of various groups in the media (e.g., societal expectations for men and women based on symbols in media products such as magazines and television programs); and how smoking is glamorized and normalized through magazine advertisements and product placement. Students were also taught how to view an advertisement as a type of story (see Appendix BB). Students identified characters, setting, conflict or problem being presented (if any), solution to the problem (person, product, or lifestyle), theme (or moral of the advertisement) and logic or assumptions of the advertisement (did something not make sense). Students also learned the animation process (Appendices P, Q, II, and JJ) including learning how to work as part of a creative team (Appendices LL and MM).

The curriculum was an in-depth look at how advertising influences us both directly and subtlety. Through familiarity with vocabulary and the process of production, students were exposed to and engaged with a variety of aspects of advertising development emphasizing persuasion and the use of story. For a comprehensive overview of the curriculum learning objectives as well as activities please see Appendices S and T. Learning objectives, activities, homework and in class exercises are available for review in Appendices U – Z and Appendices AA-LL.

Data Collection

Data collection occurred over a consecutive three day period. The time allotted by the school for each day of testing was 30 minutes. Because students had shortened class periods during that week of school, more time could not be granted. However, additional time was not necessary. Students were able to complete each post-test without rushing. Classroom teachers were asked to distribute the questionnaires without the researcher's presence. Unfortunately, the teachers did not feel comfortable giving the post-test without the researcher. Therefore, the researcher was present in the control and experimental group classrooms during post-testing. However, this ensured that the post-test was administered exactly the same way in all four classrooms. Although it can be argued that the researcher's presence may have affected student performance, it could not be avoided. It may be the case that the researcher's presence, instead of the classroom teacher only, may have slightly unmotivated the students to work harder during the post-test. It became apparent during curriculum implementation that if a grade is not going to be given on a "test" the motivation to try hard is somewhat lack luster.

On the first day of testing, the researcher introduced herself to the control group and the purpose of the study to the students. The teachers passed out and read instructions for each set of questions. The researcher was known to both the experimental and control groups prior to post-testing. After working closely with the experimental group everyday for the duration of the curriculum, students in the experimental condition were familiar with the researcher. Students in the control group had also met the researcher earlier in the semester when parental consent forms were sent home (see Appendix R). In addition, the weeks prior to the researcher's presence at the school, *The Daily Record* (county

newspaper) and the *Suburban Trends* (township paper) printed cover story articles about the program. Students in both conditions were familiar with the researcher having seen her in the school for many weeks prior to testing. This could not be avoided and is one of the challenges of conducting research in a small public school.

Description of Stimuli Material for the Post-Tests

The post-test was delivered at the conclusion of the curriculum. The first day of testing involved students responding to attitudinal questions about the media, desire to think about media and desire to hold opinions about media content. Days 2 and 3 of testing involved students responding to stimuli materials (see Figure 1 for an overview of the research design).

The advertisements were used as stimulus material so that attitudinal, cognitive thought, desire to engage, and affect measures could be taken immediately following viewing. Two different advertisements were shown on each of the two days of testing when television advertisements were used. Question sets were presented in a different order to avoid question order bias. This approach was used because two distinct types of cognitive responses were solicited from the students. The first were attitudinal and affect responses. The second types of cognitive responses were thought-listings. Chapter Four discusses the questions asked in response to a Frosted Flakes advertisement (day 2) and a MasterCard advertisement (day 3). These advertisements were used to measure affect, intrinsic motivation to process, and attitudinal responses. Chapter Five discusses thought-listings after viewing a Clearasil (acne medication) and a Diet Pepsi advertisement.

Frosted Flakes stimuli description. The first stimulus shown was an animated Frosted Flakes advertisement. The advertisement portrayed Tony the Tiger eating

"supercharged Frosted Flakes" on a tropical island while ukulele music played in the background. This advertisement was selected because of the production qualities and target audience. As an animated advertisement, students in the experimental condition might have had different thoughts about it because they created their own animations. In addition, the product is commonly consumed by this age group (see Appendix A for a description of the ad).

MasterCard stimuli description. The second advertisement, shown on day 3, was a MasterCard advertisement (integrated live action and computer animation). This advertisement portrayed product mascots from the past 25 years of advertising. The MasterCard advertisement was shown first on day 3 of testing. The mascots included the Jolly Green Giant, Tony the Tiger, the Morton Salt girl, and others sitting around a dinning room table sharing dinner (description of advertisement Appendix B). The advertisement was selected because of the use of computer animation and the use of popular food mascots. Some of the mascots were familiar to the students, others were not. The Frosted Flakes and the MasterCard advertisements were shown on different days and students responded to the same questions for both stimuli.

The advertisements used for the thought listing included a Diet Pepsi commercial and a Clearasil commercial. The Diet Pepsi advertisement, viewed second on day 3, aired during the 2005 Super Bowl. The Clearasil advertisement, viewed first on day 2, aired during after-school hours during the 2001 school year.

Clearasil stimuli selection. The Clearasil commercial is targeted to the teen audience. First, Clearasil is an over-the-counter acne medicine, and most will agree acne medications are particularly important to students in their teenage years. Second, the

actors in the advertisement are the same age, if not slightly older, than the students who participated in the study. Students were able to relate, somewhat, more to the actors.

The advertisement is interesting in that it does not use any spoken language. The audio heard is a funky, upbeat musical tune. The arguments for the product are shown in typed print on the screen. Arguments in favor of the product are presented as rhetorical questions on the screen so that the viewer can conclude the answer is to use the product (see Appendix C). This advertisement engages the senses through the use of music and young, ethnically diverse teenagers jumping around an entirely white room.

Diet Pepsi stimuli selection. The Diet Pepsi commercial was selected because of its clear use of the bandwagon technique and celebrity endorsement persuasion techniques as well as its story telling quality.

Students who participated in the curriculum were encouraged through course work to see advertisements as a story. Aired during the 2005 Super Bowl, the advertisement is a quick and fast-paced *story* about P. Diddy getting stranded on his way to an award ceremony. P. Diddy also known as Sean "Puffy" Combs or Puff Daddy is an African American male rap music artist. He is greeted on the side of the road by a Diet Pepsi truck. He hitches a ride with the driver and arrives at the show in the Diet Pepsi truck. From that point on, everyone else wants to, and starts to, drive Diet Pepsi trucks. The arguments in favor of drinking Diet Pepsi are implied, never stated. This commercial requires students to think a bit more deeply about why they might want the product, given the presentation of the product. The actors in the commercial are well known to the students as popular culture icons in music, film, and/or television (Appendix D).

Description of Research Instruments

Attitudinal questionnaire. In an attempt to avoid an interaction with the stimulus material, students were asked to respond to an attitudinal questionnaire and vocabulary matching list on the first day of the post-test. The attitudinal questionnaire addressed a variety of different statements to which students responded on a seven-point likert scale. The scale included the following statements: strongly agree (1), agree (2), somewhat agree (3), neither agree nor disagree (4), somewhat disagree (5), disagree (6), and strongly disagree (7). The attitudinal statements are divided into two categories: attitude toward media and advertising (Appendix E) and need to evaluate and understand media (Appendix F).

Attitudes toward media and advertising. Attitudinal questions related to media and advertising were adapted from a study done by Kubey and Marcello-Serafin (2001). Nineteen questions consider whether or not students who participated in the curriculum held different attitudes toward the media (in general) and advertising (specifically). The measures were developed considering core concepts of media literacy as presented in the State of New Jersey's Core Curriculum Content Standard 3.5 for Viewing and Media Literacy (Appendix N).

Need to evaluate and understand media. Ten questions were used to measure attitudes regarding the need to evaluate and understand media in general as well as advertising specifically. The statements were adapted and revised from scales used to measure need for cognition and need to elaborate (Cacioppo, Petty & Morris, 1983; Jarvis & Petty, 1996). Statements were included to understand if students varied in their need to evaluate or understand media after participating in the curriculum. Cacioppo and

Petty (1983) and Petty, Caccioppo, and Schuman (1983) have argued motivation to process is related to an individual's need to evaluate and understand. It was believed students had to *want to think* about and evaluate advertisements and other types of media in order to engage with them in a meaningful way. This was one way to measure their motivation to process media.

Vocabulary matching. In order to measure students' basic knowledge about persuasion and advertising, students were asked to: 1) match vocabulary words to definitions and; 2) to match types of print advertising to different persuasion techniques. The vocabulary matching terms were used to determine whether or not students had the language necessary for a basic understanding of how advertising works. Terms included: media, persuasion, target audience, image advertising, bandwagon, slice of life, testimonial, weasel, point of view, and public service announcement (see Appendix G for definitions). More definitions than terms were provided for students. This was done as a way to check student mastery. Students who participated in the curriculum were taught the terms as well as provided many examples in print and television advertising.

Vocabulary application. The application questions required students to look at four different print advertisements (see Appendix NN for the advertisements) and identify either the type of persuasion used or the target audience of the advertisement (Appendix H for questions). This measure was used to determine if students were able to apply concepts, not simply identify definitions. Students who participated in the curriculum participated in activities and homework of a similar nature.

Advertisement A. The first print advertisement was for MasterCard. An attractive woman in her 30's sits alone on a bench talking on her cell phone. The caption stated

"Emergency phone calls to your best friend: $50 monthly, paid automatically (during a not-so-hot date: priceless)".

Advertisement B. The second advertisement for the Candie's Foundation is a blue, black and white print advertisement. It stated, "Don't lose sight of you dreams. Fewer than one half of teen mothers receive a high school diploma". The tag line, in very small type, at the bottom of the page stated, "Educating America's youth about the devastating consequences of teen pregnancy". No other text appeared on the black page with white and blue type.

Advertisement C. The third print advertisement for Winterfresh gum portrayed a blue background showcasing a group of teenagers in brightly colored clothing standing in front of a row of lockers. The text stated, "Icy cool breath. Now poppin' up everywhere". At the bottom of the page it continued, "NEW pop 'em out pieces".

Advertisement D. The fourth advertisement was a public service announcement for parents of teenage girls. A close-up picture of a young woman with pink hair and a nose ring was juxtaposed on an inner city street. The advertisement stated, "Let them be who they are. But know what they're into. Keeping an eye on your kids is not taking away their freedom. It's actually the best way to keep them away from drugs". The advertisement included a website and a toll free phone number.

Advertisement D. The last print advertisement for Burberry portrayed an attractive male. The lone male is dressed in a suit and tie. He stares blankly at the camera. The black and white photo simply states, "Burberry. 9 East 57th street. New York".

Affect scale and statements. Affect measures were asked in response to viewing a Frosted Flakes and a MasterCard advertisement. In order to avoid a possible question

order bias with the cognitive thought listings, the affect scale and statements were completed second on the second day of testing and first on the third day of testing (see Figure 1). Since such statements were intended to elicit emotional responses immediately after viewing, the ordering of the question set was reversed with the order of the cognitive thought listings.

Affect scale. The affect scale asked participants to respond to a series of adjectives describing how they felt while viewing the advertisement. The scale used in this study was a variation of research analyzed by Kubey (1984) which suggest "mental and emotional states are often best studied using the very linguistic forms that people give them, i.e., native categories as used in the ESM" (p. 28).

Participants were asked to report how they were feeling while they watched. Affect items included: alert, happy, tense, suspicious, irritable, strong, active, creative, free, and excited. Opposite states were not provided in order to avoid confusion (see Appendix I). Internal states were reported on a scale of 1 (not very) to 7 (very). This scale was included to determine whether or not students who participated in the program experienced the viewing activity differently than students who did not participate.

Affect statements. In order to determine how involved participants were while viewing, additional affect questions were asked. Nine questions were asked including the following: the level of reported concentration, the difficulty of concentrating while viewing, how challenged the student felt while viewing, self perceived skills in viewing, wish to be doing something other than viewing, the risk involved in the viewing situation, whether or not students were in control of their actions, and the confidence level of the students (Appendix J).

Concentration, confidence and control of actions were reported on a scale of 0 (not at all) to 9 (very much). The challenge of viewing, perceived self-skill of viewing, and wish to be viewing were reported on a scale of 0 (very low) to 9 (very high). Participants were also asked to respond with a "yes" or "no" to whether or not anything was at risk while viewing or if they wanted to think about the advertisement. These questions were asked to determine if students who participated in the curriculum experienced the viewing situation differently than students who did not participate. Considering whether or not students felt more involved with the act of viewing provided insight into how they experienced the stimulus materials as well as the act of viewing. Questions were adopted from Kubey's (1984) thorough analysis of data collected using the Experience Sampling Method (ESM).

Student attitudes toward smoking. On the first day of testing, after responding to the attitudinal questions about the media and advertising, students were asked to provide their opinion of cigarettes. Using a semantic differential scale, students checked how much or little they agreed with a series of paired adjectives describing cigarettes (Appendix K). This was included to determine if students who participated in the curriculum expressed different views about cigarettes. Because participants created their own anti-smoking animations in which negative aspects of cigarette use were considered, it was one way to determine if students thought any differently about cigarettes.

In addition to student perception of cigarettes, students were also asked to respond to three statements about their attitudes toward smoking. Statements included: I believe smoking is bad, I believe smoking occasionally at parties is ok, and I believe staying away from smoking is good. Statements were reported on a five point scale ranging from

strongly disagree to strongly agree (see Appendix L). Three additional questions considered students' behavioral intention to smoke. They included: how likely are you to smoke, how likely are you to smoke at parties, and how likely are you to stay away from smoking. Responses were given on a five point scale ranging from very unlikely to very likely.

Thought-listing Technique

The final type of data gathered were student thoughts about two different advertisements. Participants viewed a Clearasil advertisement first on the second day and a Diet Pepsi advertisement last on the third day of post-testing (see Figure 1). Immediately after viewing, students were asked to write down any and all thoughts they had while viewing (see Appendix M for sample form). Students were provided a sheet of lined paper on which to write their thoughts. A total of fourteen lines were provided. The purpose was not to limit student thinking about the advertisements, but rather to encourage more thought. Preliminary tests, given the prior year to a group eighth graders, indicated fourteen lines were more than enough spaces for the students to write down their reaction to any 30-second advertisement. Thoughts were counted *and* analyzed for type(s) of thoughts expressed.

A hallmark of cognitive research is the thought listing technique. It is "a simple but effective means of tapping subjects' thoughts during or immediately after exposure to a persuasive communication" (Manstead & Hewstone, 1996, p. 37). The technique, frequently used "to determine how many thoughts are listed, whether they are favorable or unfavorable, and whether they are primarily about the product or about some ancillary

feature of the ad" is common in some types of cognitive research (Petty & Cacioppo, 1984).

Data Analysis of Thought Listings.

In order to analyze thought listings, a grounded theory approach was used. Grounded theory encourages the researcher to approach data with few, if any, preconceived categories. Ideally, categories should emerge from the data itself. Glaser and Strauss (1967) are responsible for the development of this qualitative data analysis paradigm. They state:

> Although categories can be borrowed from existing theory, provided that the data are continually studied to make certain that the categories fit, generating theory does put a premium on emergent conceptualizations. There are a number of reasons for this. Merely selecting data for a category that had been established by another theory tends to hinder the generation of new categories, because the major effort is not generation, but data selection. Also, emergent categories usually prove to be the most relevant and the best fitted to the data. As they are emerging, their fullest possible generality and meaning are continually being developed and checked for relevance. (p. 37)

Using examples and methodologies presented by Glaser and Straus, thought listings were entered into a qualitative research software database called AtlasTi. In order to use the software, the researcher attended a full day workshop given by the software developer. This allowed the researcher to develop a general understanding of how to use the software in order to label, code, and manipulate categories once they were identified.

The software also allowed the researcher to label data in ways which can be reported quantitatively. The software can also look for key words or phrases as identified by the researcher. The first step in the process was to read all of the data multiple times and look for obvious trends. Results of this analysis are reported in Chapter 5.

The process used by the researcher to identify categories was iterative. Indeed, the process is one in which the data must be analyzed and coded/recoded multiple times. The process involved adding, removing, or altering categories so that they made sense in the context of the study. Because the researcher was involved with all aspects of the curriculum, she was able to identify categories that made sense within the context of what was taught to the students. It is also important to know what the stimuli materials were used to elicit thoughts. Obviously, different types of stimuli materials would reveal different thoughts. However, because two very different types of advertisements were used, it was thought that trends which would emerge during data analysis would not merely be the result of the *type* of advertisement viewed.

All data were blind coded by the researcher. The researcher did not know while coding the thoughts whether or not a grouping of thoughts was generated by a participant in the experimental or control group. When data were entered into AtlasTi, each case was given a specific code to reduce the possibility of bias during the analysis.

Data analysis occurred over a six week period. Individual coding sessions lasted anywhere from two and half to four hours a day. Thoughts were coded automatically, individually (line by line), and in their entirety (as a complete thought). Automatically coded thoughts were done by the software program. In order to do this, the researcher had to identify which terms to ask the software to search for. Terms related to colors (red, white, blue, etc.), self-reference (I or me), and product name (Diet Pepsi, Pepsi or Clearasil) were the most obvious during the initial phases of data analysis. Although automatically coded, individual thoughts were checked for contextual consistency within each category.

Individual thoughts were coded within each case. For examples of thought-listings see Tables 27-37. Actual thought listings, as *spelled* by the participants, are provided. Since the process was iterative, the researcher, in some instances, started coding data in one particular way and later altered the coding category because too few or too many examples represented a particular category. When this occurred, the researcher would have to recode all thoughts in the category. During the process, codes were expanded or collapsed depending on the data. The process was lengthy and time consuming. However, the software provided an easy way to look at themes as well as terms in particular categories that the researcher had identified. It also allowed the researcher to code certain thoughts in more than one way, if necessary.

Thoughts coded in their entirety, in other words, as a unit of thought (not individually) were done last. After all of the categories were developed, each thought-set was coded as either mindful (critical) processing or not. In order for a group of thoughts to be coded as mindful (a critical evaluation of the advertisement), the thought listings needed to include at least three different types of thought (themes or sub-themes) and at least one of the thoughts had to exhibit an evaluation (favorable or unfavorable) of the advertisement or the product.

The *number* of thoughts (or lines filled on the paper) a student exhibited did not determine whether or not the grouping was coded as mindful, although this was taken into consideration. The variation in the types of thoughts exhibited by the student taken as a contextual whole was the best indicator for whether or not the student was critically thinking about the advertisement. Table 35 presents summary statistics for type of thought, type of advertisement, and condition.

Because two different advertisements were used in the study, it was important to evaluate the thought groupings as each applied to the advertisement viewed as well as whether the student was in the experimental or control group. The evaluation of the thoughts as a unit is, to a large extent, contextually bound to the advertisement.

In order to accurately code and assess a grouping of thoughts as either mindful or mindless it was necessary to consider the stimuli material. Generally, thought-sets (the entire collection of cognitive responses) reflected considerable range within mindful (critical) or mindless categories. In order to qualify as mindful, students had to exhibit different *types* or categories of thought (at least three; this was determined by the researcher's earlier coding), and *one* of the three (in some cases there were more than three) thought-types had to be critical/evaluative (positive or negative) toward the product or the production of the advertisement.

Chapter IV

RESULTS OF QUANTITIVE DATA ANALYSES

"It's hard to imagine where advertising doesn't
appear nowadays," said Erik Gordon, a Johns Hopkins
University marketing professor. "You can make
an argument that the whole world has
become an ad. Nothing is sacred anymore.
It even appears in my dreams -- my bad dreams."
(Quote from August 6, 2006, *Baltimore Sun*)

"Ads seem to work on the very advanced principle that a
very small pellet or pattern in a noisy, redundant barrage
of repetition will gradually assert itself."
Marshall McLuhan, *Understanding Media, 1964*

This chapter reports the results of the data analysis conducted to address the three research questions and seven hypotheses proposed in this study. Descriptive statistics and independent samples t-tests were used to compare differences between groups of participants.

Depending on the question, response rates range between 86-91 students. Of the experimental group, 29 were female and 17 were male (total $n = 46$). The control group consisted of 23 females and 22 males (total $n = 45$). Unequivalent gender differences were the result of assignment by the school district. Additional tests were run within each group to determine if gender differences contributed to trends found within the data. In the majority of cases, gender did not have a significant effect on the responses. In cases where gender differences were observed among groups, they are reported.

The results reported in this chapter are organized into three sections based on each research question and subsequent hypotheses (for an overview of research questions, hypotheses, and constructs see Table 1). Each research question considers possible effects of the media literacy curriculum by analyzing student responses to different types of questions. Each technique and scale used will be addressed within each research question and appropriate hypothesis.

RQ1 asked whether or not students who participated in the media literacy curriculum were more intrinsically motivated than students who did not participate. Five hypotheses were proposed to answer aspects of this question.

RQ2 asked whether or not students who participated in the media literacy curriculum exhibited more cognitive complexity than students who did not participate. Two hypotheses were tested. The first considered whether or not students who participated in the media literacy curriculum were more knowledgeable about persuasive techniques and vocabulary. The second considered the type of thoughts generated by the students while viewing the test advertisements.

RQ3 asked whether or not involvement with the media literacy curriculum affected student attitudes toward smoking, the media (in general), advertising (specifically), and working as part of a team. Two hypotheses were proposed to answer this question.

Intrinsic Motivation to Process (RQ1)

In order to determine if students who participated in the media education curriculum were more intrinsically motivated to process advertisements than students who did not participate, it was necessary to operationalize “intrinsic motivation to

process". Intrinsic motivation to process was assessed through five factors: affect while viewing, desire to engage with message, involvement with message, quality/types of thought, and attitudes.

Affect while viewing (RQ1, H1). In order to determine different emotional states while viewing, affect questions were asked in response to "How were you feeling while you watched the advertisement?" The categories of affect included the following: alert, happy, suspicious, irritable, strong, active, creative, free, and excited. Students were asked to indicate how much they felt a particular way while viewing on a likert-type scale from 1 (not very) to 7 (very).

Ten adjectives were provided for responses on a seven point scale. Of the ten adjectives, responses differed for two of the adjectives for the Frosted Flakes advertisement (Appendix I) – "happy" and "suspicious." A directional independent samples t-test (experimental group M = 5.6, SD= 1.4; control M = 5.1, SD = 1.4) resulted in a $t(86) = 1.4$, $p = .08$ which indicated that students in the experimental group were more likely to report being happy after viewing the Frosted Flakes advertisements than students in the control group. Although not statistically significant at the .05 level, these data are noteworthy. Students in the experimental condition tended to feel happier when viewing the Frosted Flakes advertisement than the control group. Figures 2 and 3 provide mean scores for each viewing situation. Results are provided in Tables 2 and 3.

There was a significant difference between the groups in their reporting of the feeling "suspicious" while viewing the Frosted Flakes advertisement. Students in the experimental group indicated that they were more suspicious while viewing the Frosted Flakes advertisement than students in the control group. A directional independent

samples t-test *t (*86) = .37, p. < .035 (experimental M = 2.6, SD = 1.5; control M =2.0, SD = 1.4) was performed.

These differences may indicate that students in the experimental condition were more engaged with the advertisement. The animation production process may have encouraged them to engage more with the message because they had a familiarity with how the message was created.

Figure 2
Affect While Viewing - Frosted Flakes
Mean Scores

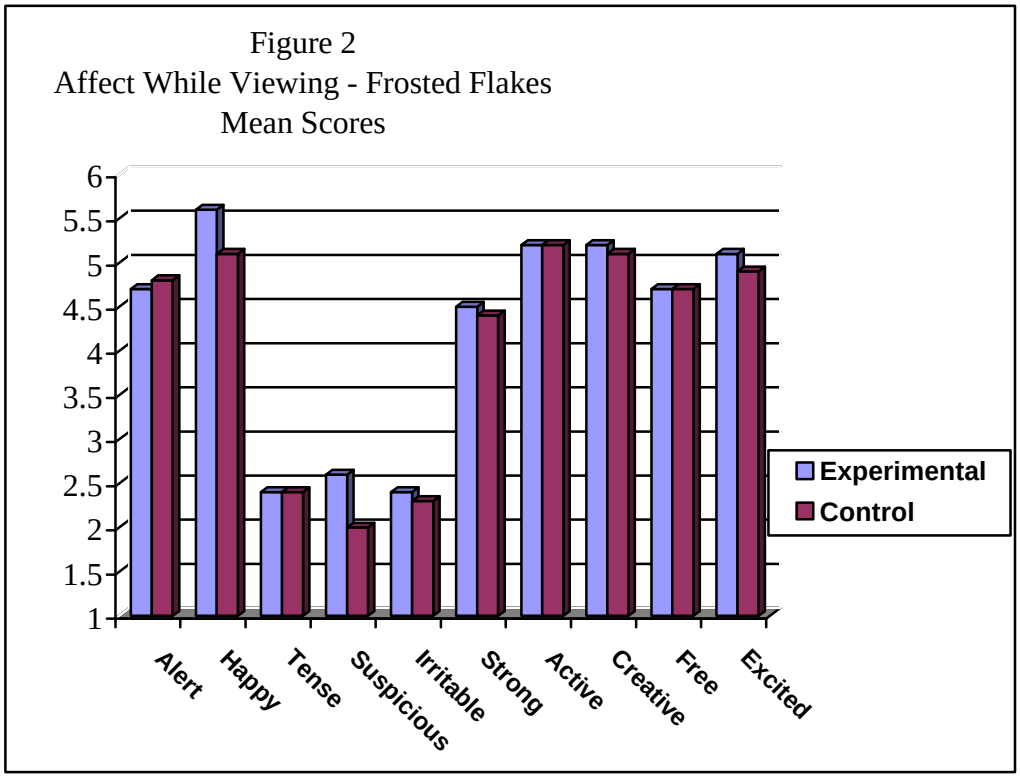
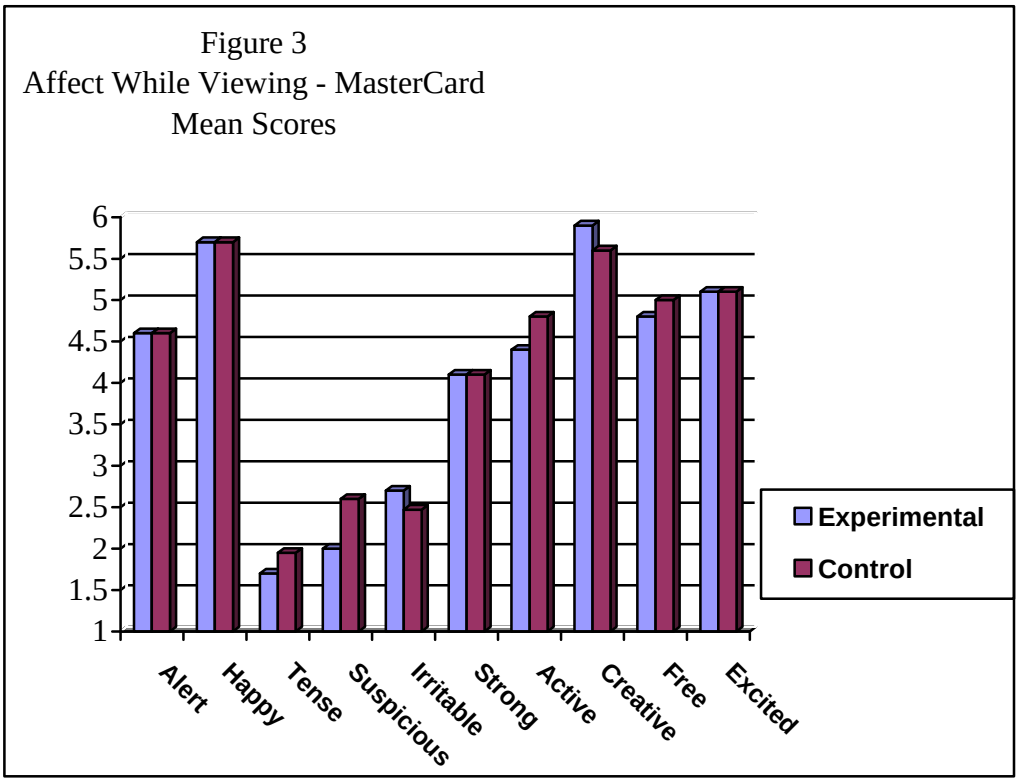


Figure 3
Affect While Viewing - MasterCard
Mean Scores



None of the other items measuring affect while viewing the Frosted Flakes or MasterCard advertisement approached significance (results reported in Table 2 and Table 3). Although these results do not fully support the first hypothesis, they do indicate that students in the experimental condition were happier and more suspicious while viewing. This effect could be compared to someone who enjoys piano. If that person listens to another play piano, he/she may be more observant and critical than someone who has no preference for piano. In this case, the students in the experimental condition were happy to view yet more critical of what they were viewing.

Gender differences, Frosted Flakes advertisement. Gender differences were observed in the experimental and control groups for the term “strong” while viewing the Frosted Flakes advertisement. Males in either condition reported feeling very strong

while viewing. [Experimental group = a non-directional samples t-test with $t(43) = -2.4$, p. < .02 (males M = 5.2, SD = 1.7; females M =4.0, SD = 1.6); control group = non-directional samples t-test $t(40) = -2.3$, p <.03 (males M = 5.0, SD = 1.9; females M = 3.8, SD = 1.6)]. Table 15 reports results for gender differences on affect measures while viewing the Frosted Flakes advertisement. The advertisement shows Tony the Tiger being "Supercharged." The implied message is that the cereal will make you strong, and not surprisingly the boys in both conditions reported feeling stronger while viewing it.

A second gender difference was observed in the control group for the term "free." The males in the control group felt freer than the females while viewing the Frosted Flakes advertisement [non-directional independent samples t-tests, $t(40) = -2.0$, $p < .05$ (males M = 5.1, SD = 1.1; females M = 4.2, SD = 1.6]. No difference was observed in the experimental condition.

Gender differences, MasterCard advertisement. Two gender differences emerged in the experimental group while viewing the MasterCard advertisement for the feelings tense and creative. In the experimental group, males report feeling almost twice as tense as the females during the viewing of the MasterCard advertisement, and they reported feeling more creative. Non-directional independent samples t-tests, $t(44) = -2.5$, $p< .01$ for the feeling of tense (males M = 2.2, SD = 1.4; females M = 1.4, SD = .63) [non-directional independent samples t-test for creative, t (44) = -2.9, $p < .01$ (males M = 6.7, SD = 1.0; females M = 5.5, SD = 1.6]. Table 17 reports results for gender differences while viewing the MasterCard advertisement.

Taken in the context of the curriculum, this advertisement is creative (real world setting and integrated animation). It is interesting that it is the males who had participated

in the curriculum, rather than the females, who were significantly more likely to notice it. Perhaps the males reported feeling tenser because they were trying harder to understand how the animation in the advertisement was created. These data indicate the males were slightly more engaged with the advertisement than females in that the males reported feeling significantly more creative yet more tense than females.

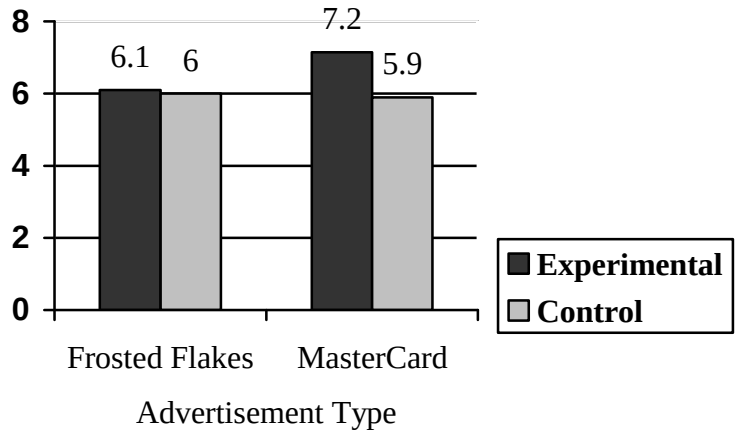
Desire to engage with message (RQ1, H2). In order to determine if students in the experimental group cognitively engaged with the stimulus materials more than students in the control group, eight different sets of questions were asked. The following categories of questions were considered: the level of reported concentration, the difficulty of concentrating while viewing, how challenged the student felt while viewing, self perceived skills in viewing, wish to be doing something other than viewing, the risk involved in the viewing situation, whether or not students were in control of their actions, and the confidence level of the students (see Tables 5, 6, and 7 for findings and Appendix J for survey questions).

The second hypothesis tested whether or not students who participated in the media education curriculum cognitively engaged with the advertisements more than the students who did not participate. The following data support research conducted by Kubey and Csikszentmihalyi (1990) who state, “truly rewarding experiences… almost invariably require concentrated involvement and interaction with complex information” (p. 141). Student motivation to concentrate while viewing advertisements was statistically significant for approximately half of the items used to test the hypothesis.

Concentration. When students were asked, “How well were you concentrating?” results were mixed. While viewing the MasterCard advertisement, a non-directional

independent samples t-test revealed a statistically significant difference between the experimental (M = 7.5, SD = 1.9) and the control group (M = 5.9, SD = 2.6), $t(87) = 2.6$, $p < .01$. Students in the experimental group reported concentrating much more while viewing the MasterCard advertisement, while the control group reported concentrating less. The average score of 7.5 situates student responses between concentrating "quite a bit" (6) and "very much" (9). For the Frosted Flakes advertisement, no significant difference was observed on this item. The average response was "quite a bit" (6) for both conditions. Figure 4 includes mean scores for both types of advertisement.

Figure 4
How Well Were You Concentrating?
Mean Scores



The difference in concentration may be due to the type of advertisement as well as the curriculum. The MasterCard advertisement was more difficult and/or novel because of how the advertisement was produced as well as the type of product. The type of advertisement (computer animated characters interacting in a real world setting), combined with participation in the curriculum, may have resulted in students concentrating more while viewing. Students had to work a little harder, i.e., concentrate

more, while viewing in order to evaluate and analyze this stimulus. Although they were not skeptical of the message (RQ1, H2), they did need to concentrate more when viewing it (RQ1, H3). Table 18 includes findings for concentration and involvement statements.

While viewing the Frosted Flakes advertisement the students in the experimental group felt that they did not concentrate as much, but they were more skeptical. Overall, the data reveal that students who participated in the curriculum were more skeptical with material they understood (the animation) but had to concentrate more with materials (computer generated animation mixed with real world content) that were different. This finding partially supports the hypothesis.

Gender differences among the groups are not significant. Table 18 includes specific p-values for gender comparisons. Figures 5 and 6 include mean scores for the measure "How well were you concentrating?". Ruling out gender differences between the conditions strengthens the possibility that the difference observed in the experimental condition for the MasterCard advertisement viewing experience resulted from the type of advertisement combined with the educational experience.

Figure 5
How Well Were You Concentrating?
Mean Scores
Frosted Flakes Ad

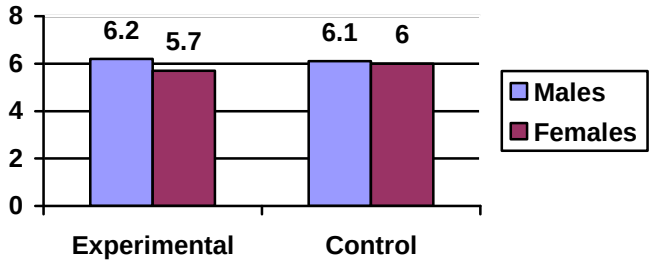
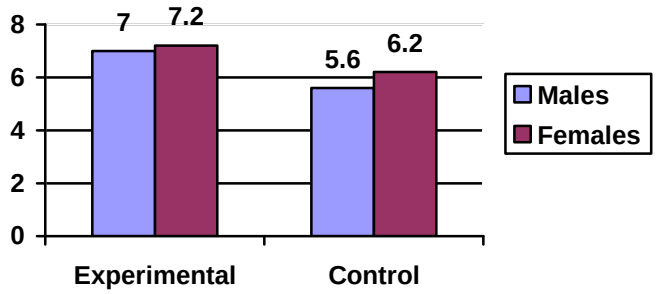
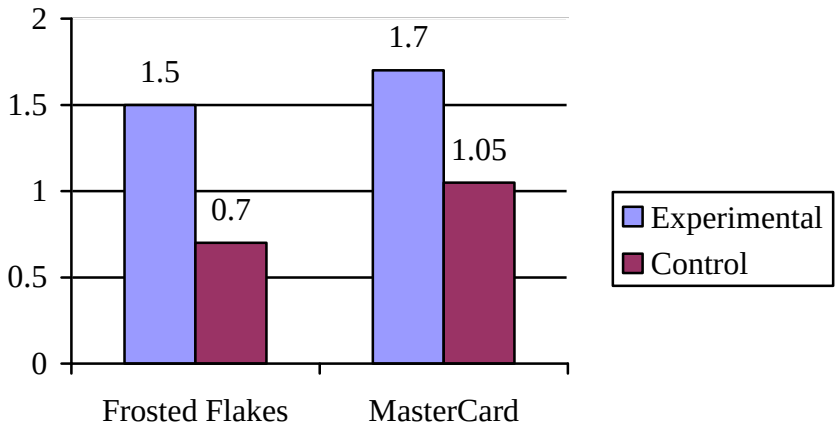


Figure 6
How Well Were You Concentrating?
Mean Scores
MasterCard Ad



Difficulty concentrating. Students were asked, "Was it hard to concentrate?" Results trend toward an interesting finding. For the Frosted Flakes advertisement, students in the experimental group reported greater difficulty concentrating (M = 1.5, SD = 1.8) than the control group (M = .7, SD = 1.1) with a non-directional $t(84) = 2.5$, $p < .01$. Although the mean number is low on the scale (M = 1.5), students who participated in the program report experiencing twice as much difficulty in concentrating than the control group. This may indicate students were more cognitively engaged and trying harder with the stimulus material. Again, this may be related to the fact that the advertisement was a cartoon animation, and they had previously created their own animation, so they were trying harder and thinking more about it. Students in the control group may have seen the animated advertisement and simply applied heuristic models used to typically process a cartoon. Figure 7 includes mean scores for concentration (Table 5 includes findings).

Figure 7
Was it hard to concentrate?
Mean Scores



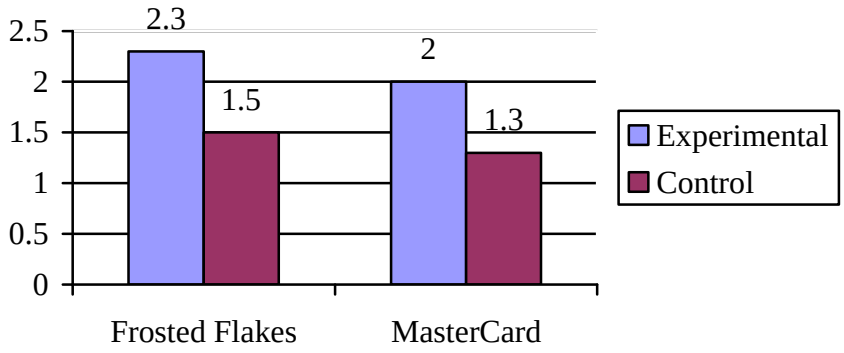
While viewing the MasterCard advertisement, students in the experimental group reported more difficulty (M = 1.7, SD = 2.3) concentrating than students in the control group (M = 1.0, SD = 1.8) with a non-directional $t(87) = 1.4$, $p < .08$. The reason why a stronger statistical difference was not observed may be the fact that both groups found this type of advertisement more difficult to concentrate on while viewing. Although the experimental group exhibits similar levels of difficulty in concentration for both advertisements, the control group's mean scores are slightly higher for the MasterCard advertisement (M= 1.0) than for the Frosted Flakes advertisement (M = .7). Students in the control group found concentrating while viewing the MasterCard advertisement slightly more difficult than while viewing the Frosted Flakes advertisement. Students in the experimental group reported similar levels of difficulty concentrating for both. This finding may indirectly point to the way in which many people approach specific types of advertising. Because the MasterCard advertisement was more novel and different, it was slightly more difficult to concentrate while viewing it than while viewing the Frosted

Flakes advertisement. However, students in the experimental group approached the viewing of the Frosted Flakes and MasterCard advertisements with equal difficulty. This finding partially supports the hypothesis.

When gender differences are considered for the question for "was it hard to concentrate?" no statistical differences were observed. Table 18 reports findings.

Challenged while viewing. While watching the Frosted Flakes and MasterCard advertisements, respectively, students in the experimental group (M=2.3, SD = 2.15; M = 2.0, SD = 2.1) reported being more challenged than students in the control group (M =1.5, SD = 1.9; M = 1.3, SD =2.0) while viewing (results reported in Table 6). While viewing the Frosted Flakes advertisement, students in the experimental group were significantly more challenged than students in the control group, directional independent samples t-test $t(84) = 1.65$, $p < .05$. Although students in the experimental group reported being challenged while viewing the MasterCard advertisement, it was not as challenging as viewing the animated Frosted Flakes advertisement, $t(87) = 1.5$, $p < .07$. Figure 8 reports mean scores for the item.

Figure 8
Challenged While Viewing
Mean Scores



For both stimuli materials, students in the experimental group did report feeling more challenged while viewing than did students in the control group. Students who participated in the program may have felt more challenged because of an awareness of and ability to apply new skills while processing. Indeed, enabling students to view media more critically is one of the goals of media literacy education. This finding partially supports the hypothesis.

In order to determine if gender differences could be observed between and/or among groups, independent sample t-tests were calculated. For this measure, differences were observed in the control group only. The males in the control group (M= 2.1, SD = 2.2) reported greater difficulty while viewing the Frosted Flakes advertisement than the females (M = .95. SD = 1.5), $t(41) = -1.96$, $p < .03$. Table 19 reports non-directional results. The gender difference may be explained by understanding the specific content of the advertisement. Tony the Tiger displays physical strength in pulling the palm trees together as a result of eating Frosted Flakes. The boys may have wondered whether or not eating Frosted Flakes would give them physical strength, too. The action within the advertisement may have encouraged the males to engage with the message more than the females.

The MasterCard advertisement did not reflect a statistically significant difference for either condition in either group. Unlike the Frosted Flakes advertisement, the MasterCard advertisement focused on spending time with family and friends. The message was about how using MasterCard can help you pay for family dinners. The Frosted Flakes advertisement was more focused on what eating Frosted Flakes could do to you physically.

It appears as if the females in the control group reported very little to no challenge while viewing the Frosted Flakes advertisement (M= .95). The mean score of the males in the control group (M= 2.1) was similar to both the females (M = 2.3) and males (M = 2.3) from the experimental group. It may be the case that the females in the experimental condition were more interested (i.e., challenged) because they were able to see this advertisement as an interesting example of animation. They did not focus on becoming "strong" (the implied message of the ad) but rather on how the advertisement was constructed. The females in the control group may not have engaged with the Frosted Flakes advertisement because it was merely a cartoon and it emphasized a message of strength as the result of eating the cereal. This finding further supports the hypothesis. Figures 9 and 10 report mean scores for gender and challenge while viewing.

Figure 8
Challenged While Viewing
Experimental Group
Mean Scores

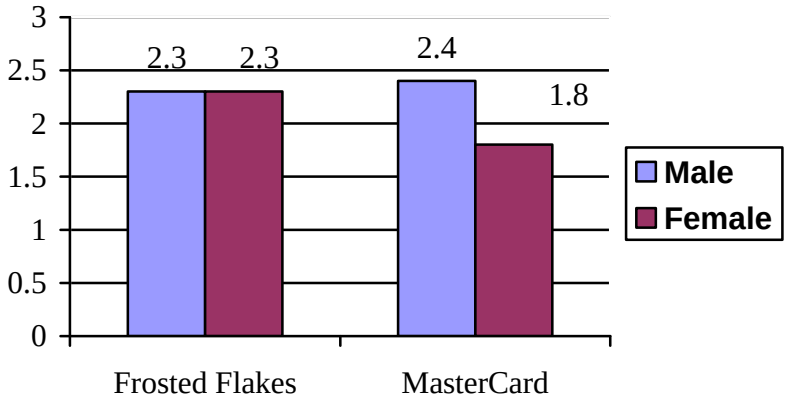
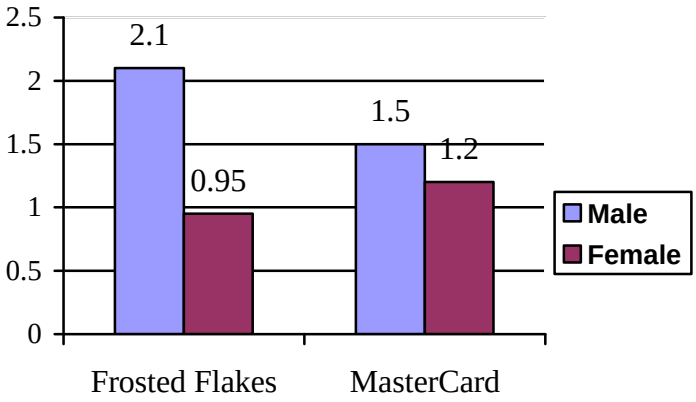


Figure 9
Challenged While Viewing C
Control Group
Mean Scores



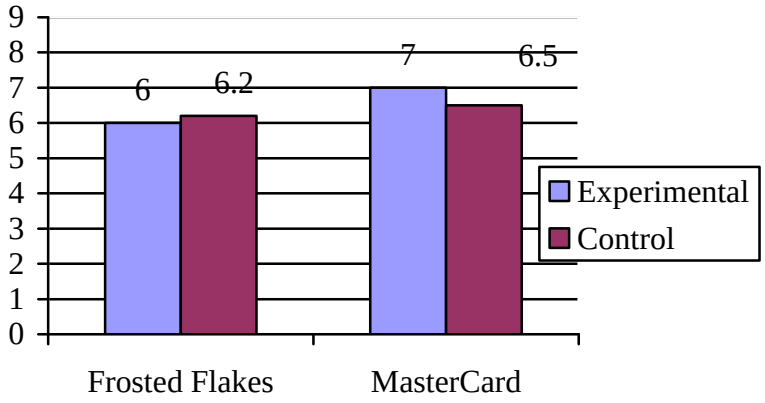
Low or high skills in viewing. After viewing the Frosted Flakes advertisement when students were asked to respond to "How high or low were your skills in viewing?" students in the experimental and the control group rated their skills equally high (experimental M = 6.0, SD = 2.4; control M =6.2, SD = 2.5). Although no statistical difference was found for this measure, it reveals an interesting finding (see Figure 10 for mean scores, Table 6 for results).

Kubey (1989) has argued people assume viewing is simple and easy. Yet, we know critical viewing does require a certain amount of skill. Students in the experimental condition did not recognize that they had developed any skill in their viewing (see Table 6), while students in the control group assumed viewing (in this case an animated advertisement) was easy and simple to do. In other words, they believed that they already had the skills. Gender differences were not observed in response to this item (see Table 19).

For the MasterCard advertisement, students in the experimental group rated their viewing skills as only slightly higher than students in the control group (experimental M

= 7.0, SD = 1.7; control M = 6.5, SD = 2.4), directional independent t-tests *t*(87) = 1.0, p = .15. In other words, students in the experimental group expressed slightly more confidence with their analysis skills while viewing the novel commercial. Although these findings do not support the hypothesis, they can be partially explained by prior research. Most consumers of television believe it is a leisure activity which has little, if any, cognitive demands. In other words, little or no skill is required to do it. This attitude is a deeply ingrained belief about viewing and may be what is reflected in these data.

Figure 10
Low or High Skills in Viewing
Mean Scores

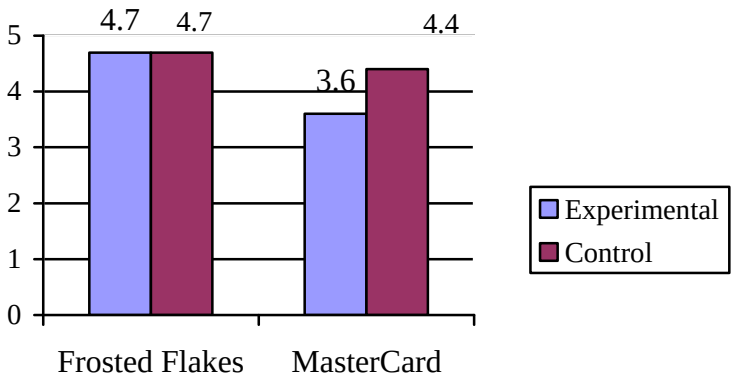


Wish to be doing something else. When students were asked if they wished to be doing something other than viewing, the results were mixed (Table 6). Data for the Frosted Flakes advertisement reveal students in either condition (M= 4.7) equally report "somewhat" wishing to be doing something other than viewing. No statistical differences were found.

For the MasterCard advertisement, students in the control group (M = 4.4, SD = 3.1) were more likely than students in the experimental group (M = 3.6, SD = 2.8) to

report wishing to be doing something other than viewing, directional independent samples t-tests $t(87) = -1.4$, $p < .09$. In other words, the students in the experimental group reported that they wanted to view the advertisements more than students in the control group. Students in the experimental group were slightly more intrinsically motivated to process the more "challenging" and/or "novel" advertisement. Although approaching significance, this finding does not support the hypothesis. Figure 11 reports mean scores (Table 6 results).

Figure 11
Your wish to be doing something
other than viewing?
Mean Scores

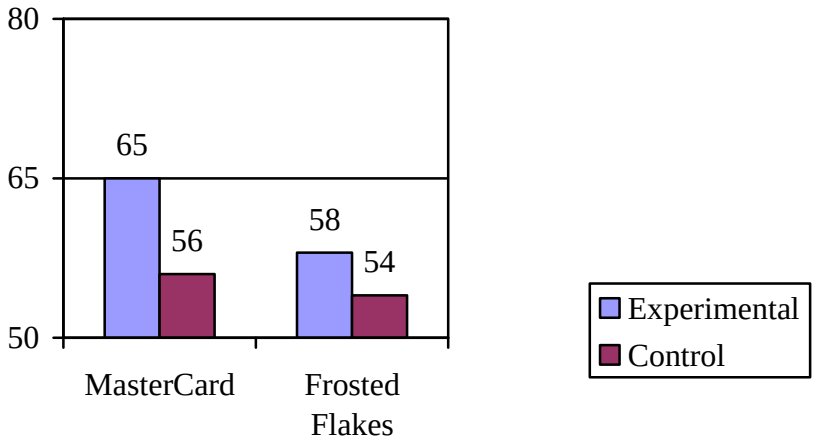


Risk and thinking about advertisement. Table 7 reports results for two questions requiring a yes or no response. The questions asked whether or not students wanted to think about the advertisement and if anything was at risk for them while viewing it. Results for risk and thinking were approximately equal between the groups regardless of the advertisement.

One interesting difference was found when students were asked "Did you want to think about the advertisement [MasterCard]?" Sixty-five percent of the students in the experimental group reported they wanted to think about the MasterCard advertisement

compared to 56% percent of the students in the control group (Figure 12 reports yes percentage). An equal percentage of both groups reveal that approximately 55% of the students wanted to think about the Frosted Flakes advertisements. While somewhat revealing, this finding does not support the hypothesis.

Figure 12
Did you want to think about the advertisement?
Percentage Saying Yes



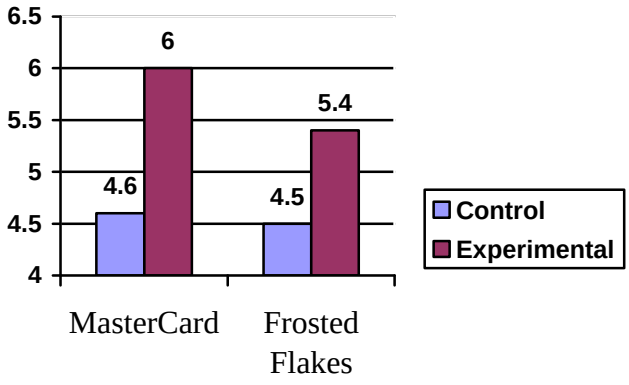
Control of actions. When students were asked to what degree they felt in control of their actions, no significant differences were observed between the experimental and the control group for this item (reported in Table 5). Overall, students felt in control of their actions with mean scores above 6.5. For the Frosted Flakes advertisement, students in the experimental group (M = 6.8, SD = 2.5) and the control group (M = 7.2, SD = 2.4) reported they were equally in control of their actions. The MasterCard responses mirror these results in the experimental group (M = 7.7, SD = 1.8) and the control group (M =7.1, SD = 2.2). These findings do not support the hypothesis.

Confidence of students. Students in the experimental group reported being significantly more confident while viewing the Frosted Flakes and MasterCard

advertisement when asked “How confident were you while viewing [the advertisement]?” Table 5 reports results for this item. Students in the experimental group (M = 5.4, SD = 2.2) reported higher confidence levels while watching the Frosted Flakes advertisement than students in the control group (M = 4.5, SD = 2.1), non-directional independent t-tests $t(84) = 1.9$, $p < .05$. The finding indicates that students may have felt more confident because they had learned how to critically view.

During the MasterCard advertisement, students in the experimental group (M = 6.0, SD = 2.0) consistently reported higher confidence levels than students in the control group (M = 4.6, SD = 2.3), non-directional independent t-tests, $t(87) = 3.0$, $p < .00$. Students who participated in the curriculum felt more confident in their skills than students in the control group perhaps because students in the experimental condition knew what to look for and/or pay attention to while viewing. This finding supports the hypothesis. Figure 13 reports mean scores (Table 5 reports results).

Figure 13
How confident were you while viewing?
Mean Scores



No gender differences were observed in the experimental group for this item. However, a gender difference was observed for the viewing of the Frosted Flakes

advertisement. Males in the control group reported feeling more confident (M = 5.1, SD = 1.8) than females (M = 3.9, SD = 2.3), $t(39) = -1.9$, $p < .04$. Figures 14 and 15 report mean scores for each item.

Figure 14
How confident were you while viewing?
Frosted Flakes
Mean Scores

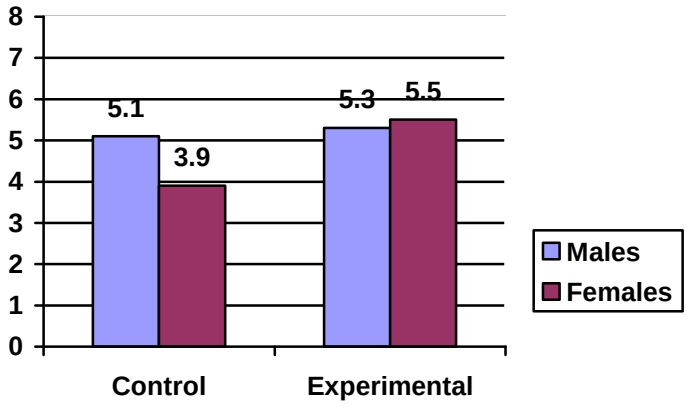
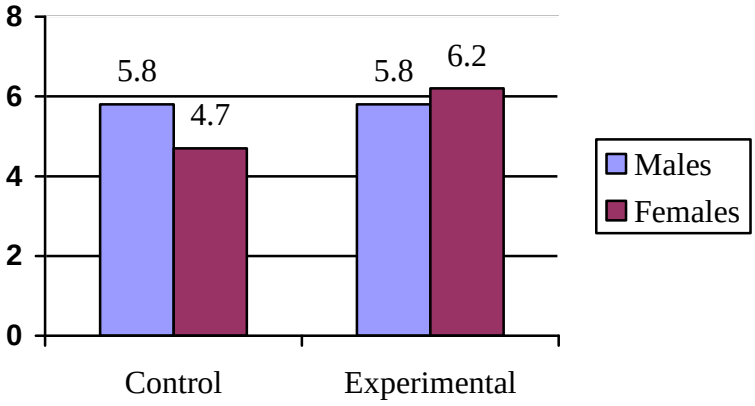


Figure 15
How confident were you while viewing?
MasterCard
Mean Scores



This finding is similar to the one discussed earlier regarding a gender difference in the control group between males and females for the Frosted Flakes advertisement.

Females in the control group reported less confidence and less challenge viewing the animated advertisement than males. It appears as if the curriculum encouraged the experimental group (and the females in particular) to feel more confident and more challenged in their viewing. Animation, because of its cultural association with youth and childhood, is more likely to be discounted as something worthy of attention. This finding is interesting because it points to the possibility that the production experience provided students in the experimental group with a new lens through which this type of advertisement could be viewed.

As mentioned earlier, one of the reasons it is important to study advertising curriculum is because many people discount or ignore advertising all together. Even though many people report not thinking about or paying attention to advertisements, we simply know this is not the case. Marshal McLuhan (1964) noted, "Ads seem to work on the very advanced principle that a very small pellet or pattern in a noisy, redundant barrage of repetition will gradually assert itself" (p. 6). It is when we remain complacent, i.e., unchallenged and unskilled, in our viewing or media consumption that it can have the greatest effect on our thoughts and behaviors. For this reason, these findings are important to the overall study.

Involvement with Message, Number of thoughts generated

The third hypothesis for intrinsic motivation to process (RQ1, H3) explored whether students who participated in the media education curriculum generated more thoughts than students who did not participate. Table 14 reports results for number of cognitive responses.

Stimulus material for cognitive responses. In order to determine how many cognitive responses (thoughts) students generated in response to a stimulus material, they were shown two different advertisements and asked to write down as many and whatever thoughts they had about the advertisement while viewing (see Figure 1 for order of stimulus materials). Because this type of measure is similar to the first set of items in terms of when questions must be asked, different advertisements other than the Frosted Flakes or the MasterCard advertisement needed to be used.

The first was a Clearasil commercial (for a description see Appendix B) shown first on day two. The second advertisement was for Diet Pepsi (for a description see Appendix A) shown second on day three. In order to analyze quantitative differences between groups, thoughts were counted.

The difference in the quantity of thoughts generated was statistically significant for both advertisements. In Table 14 we see that a directional t-test for the Clearasil advertisement resulted in a $t(86) = 7.6$, $p < .00$. Students in the experimental group listed twice as many thoughts about the advertisement as students in the control group (experimental M = 6.6, SD = 2.2; control M = 3.3, SD = 1.8). A directional t-test for the Diet Pepsi advertisement resulted in a $t(87) = 6.5$, $p < .00$. Students in the experimental group listed approximately twice as many thoughts as students in the control group for the Diet Pepsi advertisement (experimental M = 6.0, SD =2.5; control M = 3.3, SD = 1.1). These results very strongly indicate that students who participated in a media literacy curriculum were more involved, more motivated, or able to process the advertisements. Students in the experimental group may well have learned more ways to look at the advertisements indicated by the fact that they generated twice as many

thoughts. Data presented later in this chapter confirm that the students in the experimental condition were indeed more knowledgeable and better able to identify different types of advertising techniques. This finding supports the hypothesis.

In order to rule out a gender interaction, independent t-tests were run within groups (Figures 17 and 18 report mean scores). No significant differences are observed in either condition [experimental condition $t(44) = -.82$, $p = .2$ for the Clearasil advertisement and a $t(44) = -1.4$, $p = .08$ for the Diet Pepsi advertisement; control group $t(40) = .42$, $p = .3$ for the Clearasil advertisement and a $t(41) = -.11$, $p = .5$ for the Diet Pepsi advertisement]. Mean scores for the control group indicated that females generated a similar number of thoughts (M = 3.4) as males (M = 3.2) for the Clearasil (Ad 1) and for the Diet Pepsi advertisement (M = 3.3, females) (M = 3.3, males). Females in the experimental group (M = 6.4) generated slightly fewer thoughts than males (M = 7.0) for the Clearasil advertisement and the Diet Pepsi advertisement (M = 5.6, females) (M = 6.7, males).

Figure 16
Experimental Group
Mean Number of Thoughts

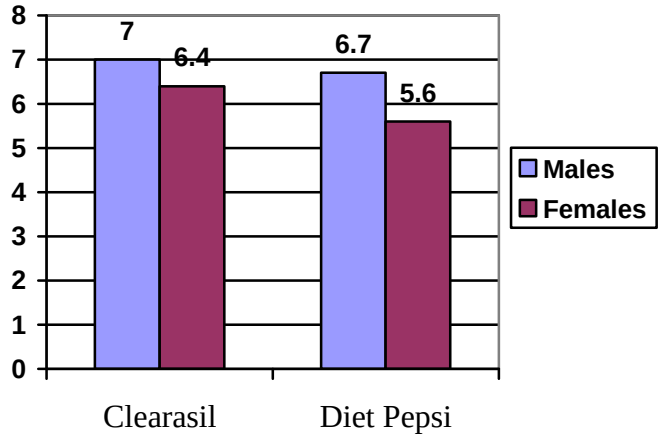
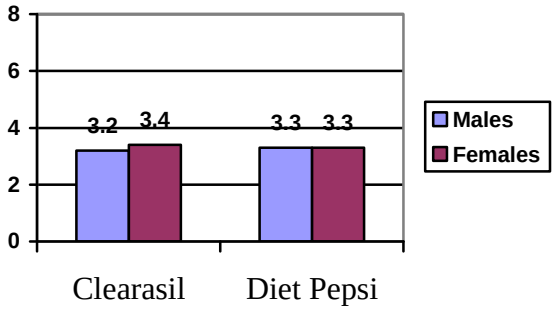


Figure 17
Control Group
Mean Number of Thoughts



This finding supports the hypothesis. Students who participated in the curriculum were, indeed, thinking more about the advertisements regardless of gender.

Attitudinal measures of involvement (RQ1, H5)

Another way to determine motivation is to directly ask students their attitudes. Students were asked to respond to a series of statements about thinking (cognitive complexity), forming opinions about media and learning about media. Students were provided a series of statements and asked to rate the statements on a scale of 1 (strongly agree) to 7 (strongly disagree). All attitudinal questions were asked on the first day of post-testing. Table 4 and 16 reports results for attitudinal measures of involvement. Figure 18 provides mean scores.

Students in the experimental condition tended toward enjoying an active engagement with media, rather than cerebral reflection. The attitudinal items where students were asked to consider active involvement with media such as creating or talking about media show a clear difference between the experimental and the control group. For example, students in the experimental condition were more likely to agree that they: 1) really enjoy creating media; 2) like learning new ways to think about advertising;

and 3) like being able to talk about media they enjoy at home in class. The data trended toward an active engagement with media instead of a cognitive need to think about media. Although there was no difference between the experimental and control groups in terms of desire to think about media, the trend was toward an engagement with it.

Enjoyment creating media. Students were asked to agree or disagree with the statement, "I really enjoy creating media (animation, websites, advertisements, music, etc.)". A directional independent samples t-test was significant, $t(87) = -2.5$, $p < .02$. Students in the experimental group (M=2.8, SD = 1.6) were significantly more likely to agree than students in the control group (M = 3.5, SD = 1.8). This measure confirms that students who participated in the media literacy curriculum enjoyed creating media more than their counterparts. This finding supports the hypothesis.

Learning new ways to think about advertising. When students were asked their attitude toward learning new ways to think about advertising, students in the experimental group indicated a higher level of liking. Using a directional independent samples t-test, analysis of responses to the statement "Learning new ways to think about advertising doesn't excite me very much" resulted in a $t(87) = 2.77$, $p < .00$. Students in the experimental group (M = 3.85, SD = 1.63) were significantly more in agreement about being excited to learn new ways to think about advertising than students in the control group (M=2.97, SD = 1.3). Clearly, students in the media literacy curriculum group developed a greater interest in learning about advertising. This finding strongly supports the hypothesis.

Learning about media creation. When students indicated their attitude regarding enjoyment in learning about how and why certain programs, movies, advertisements, etc.

were created differences between the experimental and the control group were significant. A directional independent samples t-test resulted in a $t(86) = -2.68$, $p < .00$. Students in the experimental group reported (M = 3.65, SD = 1.59) more enjoyment learning about all types of media creation than students in the control group (M=4.6, SD = 1.7).

The curriculum clearly created an interest in learning about how media of all types are created. Igniting an interest in a subject area may well encourage (i.e, motivate) the student to think about the particular subject more mindfully. This finding supports the hypothesis.

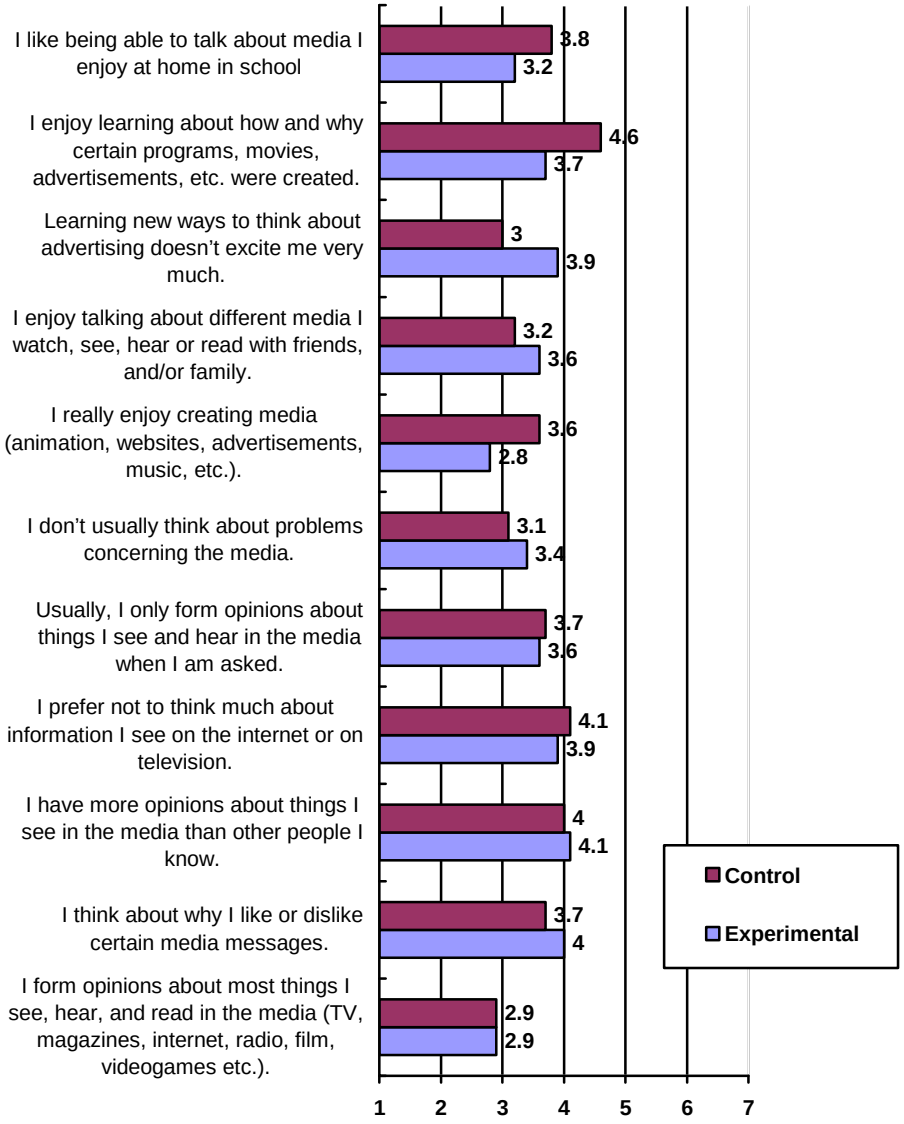
Talking about media in class. Next we look at responses to the question: "I like being able to talk about media (television shows, movies, advertising, etc. I enjoy at home in class." Students in the experimental group (M = 3.2, SD = 1.5) were more likely to agree with the statement than students in the control group (M = 3.8, SD = 1.6) [directional independent sample t-tests, t (85) =-1.8, $p < .03$].

Responses to this statement are particularly interesting when contrasted with responses to a somewhat similar question: "I really enjoy talking about different media I watch, see, hear or read with friends, and/or family." Responses to that statement were not significantly different between the experimental and the control groups. What this may reveal is that students like talking about media in class, but may not enjoy talking about their media consumption with significant others outside of school. This finding supports the hypothesis, while pointing to an important issue regarding media consumption in the home.

Wanting to think about media (RQ1, H6). The last hypothesis considered if students who participated in a media literacy curriculum would report a higher desire to think and hold opinions about the media than students who did not participate. Although these measures were not statistically significant, it is important to note these questions asked students if they were "thinking", i.e., reflective about media content in general. Questions such as, "I form opinions about most things I see, hear, and read in the media" and "I prefer not to think much about the information I see on the internet or on television," were adapted from previous scales which considered whether or not subjects held a high need for cognition. Table 4 reports these results.

When data were analyzed for gender, one significant difference was observed in the control group. The males (M = 3.2) reported stronger agreement than the females (M = 4.1) with the statement: "I really enjoy creating media (animation, websites, advertisements, music, etc.)", directional $t(41) = 1.8$, $p < .04$. When control group males are compared to the experimental group, we see females (M = 2.7) and males (M = 2.9) share similar attitudes. This may, in some ways, be explained by the males' interest in the production of media rather than talking about the content. It may also be the case that females in the experimental group were brought into alignment with males' attitudes about the production of media content.

Figure 18
Attitudinal Measures
Mean Scores



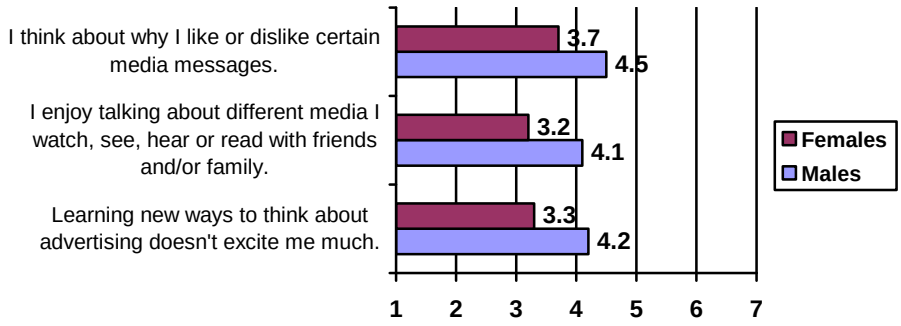
In other words, the real difference on this item was with the females in the control group. Perhaps the females learned that production can be enjoyable and fun.

Further exploring attitudinal gender differences among the experimental group, a few interesting trends emerge (see Table 16). The data indicate that males (M = 3.3) in the experimental group were more likely to strongly agree that they like learning new ways to think about advertising, directional $t(44) = 1.9$, $p < .03$, than females (M = 4.2). On the other hand, females (M = 3.2) more strongly agreed than males (M = 4.1) that they enjoy talking about different media they consume with family and friends, $t(44) = -1.7$, $p < .05$. Females (M =3.7) also reported thinking more about why they like or dislike certain media messages [$t(44) = -1.6$, $p = .06$] than males (M = 4.5). This finding makes sense if we consider that enjoying talking about the media we consume with friends and family necessitates thinking about why we like certain content, for example. Perhaps males in this age group are simply less likely to enjoy talking about their media consumption with their family. Conversely, we can say females at this age are more intensely social. This may be why the females enjoy talking about media with family and friends more than the males.

Overall, the data trend toward the possibility that females were more excited about the production aspects of the curriculum and this carried over into their talking about it at home. Where males may have already shown interest in production, it was new to females. In either case, these data indicate that females in the experimental group enjoy talking and thinking about why they like or dislike media content more than males. These differences are related to a more active engagement with media content.

The remaining attitudinal measures also indicate an interesting trend (Figure 19 for mean scores). Females in the experimental condition more strongly agree that they think about why they like certain messages, enjoy talking about different media more, but do not feel excited about learning about new ways to think about advertising (Table 17 reports results).

Figure 19
Experimental Gender
Attitudinal Differences



Cognitive Complexity (RQ2)

The second research question asks, "Do students who participate in a media education program exhibit more cognitive complexity while processing advertisements than students who do not participate?" Cognitive complexity was measured by asking students to identify vocabulary terms related to media (specifically persuasion techniques), by asking students to apply the concepts to four different print advertisements, and by determining whether or not students exhibited more sophisticated thoughts during their viewing experience. In order to determine what differences exist among participants, it is necessary to assess their depth of cognitive complexity. First, it is necessary to identify whether or not basic skills and vocabulary exist for higher order

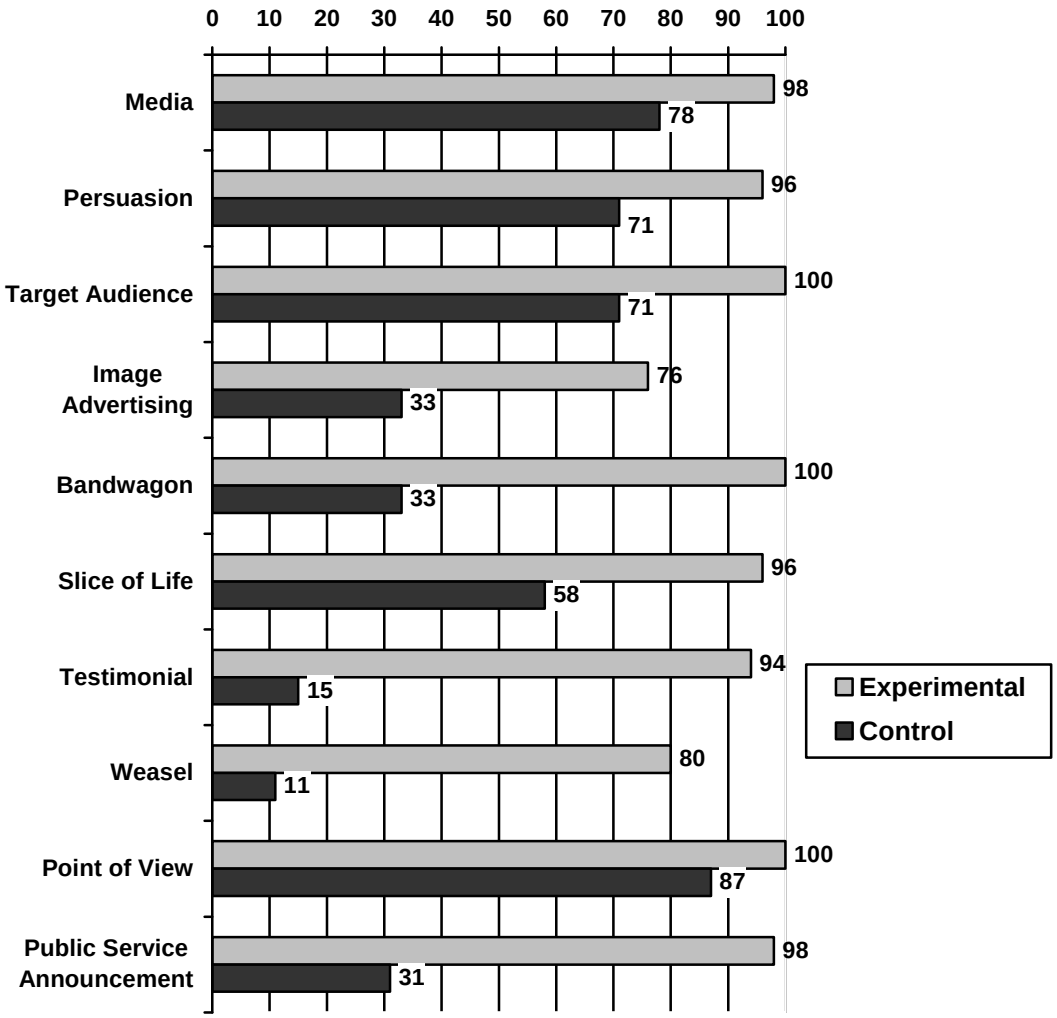
thinking. Next, application of knowledge is considered. Finally, the thoughts generated while viewing are analyzed. RQ2, H1 states: "Students who participate in a media education curriculum will exhibit more knowledge about the media."

Vocabulary knowledge (RQ2, H1). In order to determine if students exhibited more complex thoughts about advertising, the first step was to determine if students who participated in the curriculum had a more expansive language with which they could discuss advertising. Communication scholars have argued our language shapes our perceptions. Others believe knowledge (such as basic vocabulary) in a particular area is necessary for higher cognitive functioning to occur (Bloom, 1965). Providing students with a language for "seeing" advertising is the first step toward developing more sophistication in thinking about it.

Students were asked to identify the correct definition of ten vocabulary words. In order to do this, they were provided with twelve different definitions. The media-related vocabulary included the following terms: media, persuasion, target audience, image advertising, bandwagon, slice of life, testimonial, weasel (type of persuasive technique), point of view and public service announcement. Students in the experimental group outperformed students in the control group for identification of all of the vocabulary words (results reported in Table 8). Vocabulary identification revealed that students in the experimental group identified the correct definition more than twice as many times as students in the control group (see Table 9). Students in the experimental group (n=46) were three times more likely than students in the control group (n=45) to identify the correct terms for bandwagon and public service announcement. They were seven times more likely to identify the terms testimonial and weasel technique. This finding supports

the effectiveness of the curriculum in teaching students basic persuasion vocabulary (Figure 20 reports percentages correct).

Figure 20
Percentage of Correct Vocabulary Items



Basic knowledge about a subject area is necessary for deeper understanding and critical thinking to occur. Students in the experimental group exhibited significantly more familiarity with persuasion techniques and terms. Thus, students in the experimental group had a higher level of media literacy. In order for students to speak and think about the media in a meaningful way, they need to have a basic vocabulary to do so.

When gender is considered, a clear difference can not be observed. Males and females in either condition perform based on condition. Gender does not appear to play a significant role in how students performed on this measure (Figures 20 and 21 report results).

Although we observe considerable differences on this measure between conditions, and it is a solid indication of learning, many times vocabulary terms can be memorized without a deeper connection to what the terms represent. In order to determine if students in the experimental group were able to apply the concepts and vocabulary as part of the curriculum both groups were asked to identify advertisements that used different persuasion techniques.

Figure 21
Percentage of Correct Vocabulary
Control Group

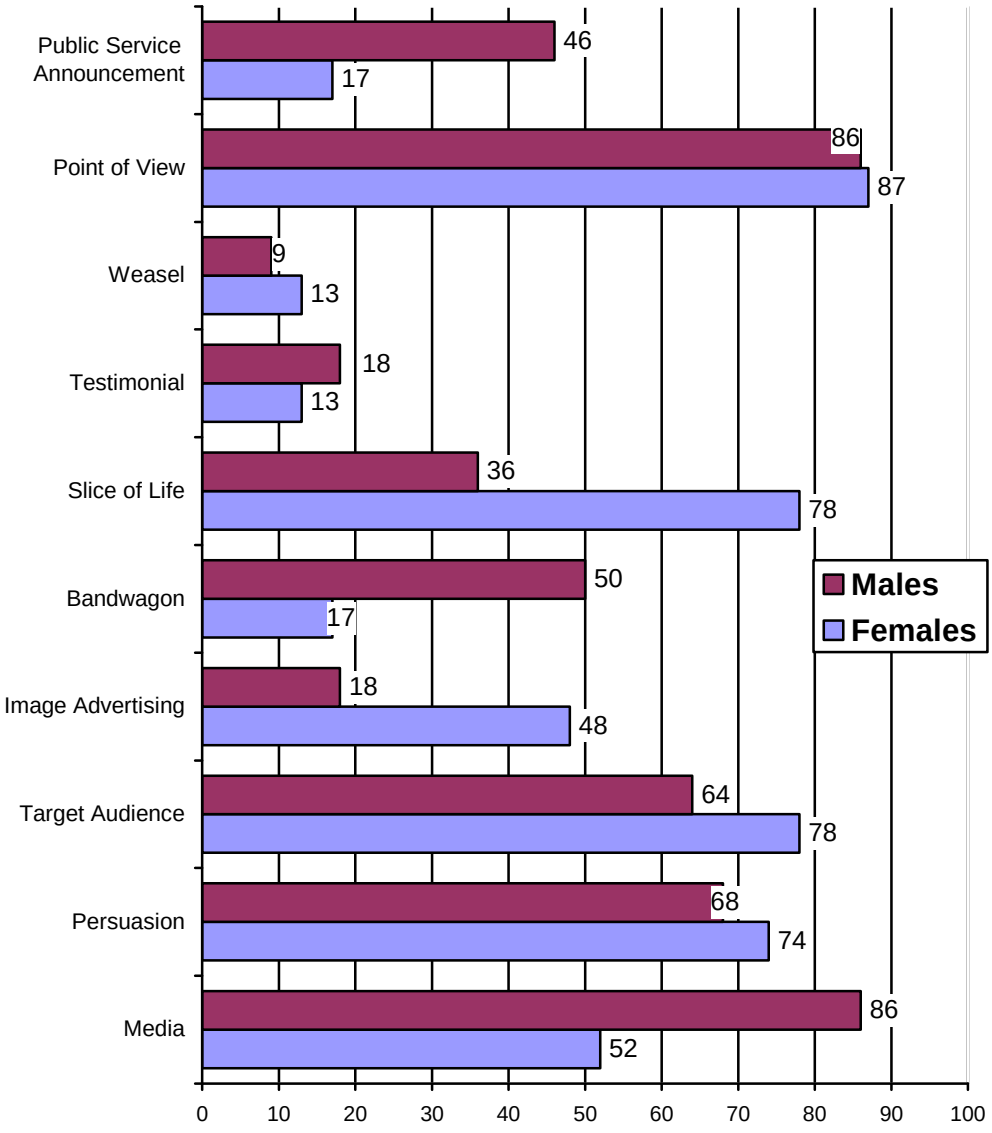
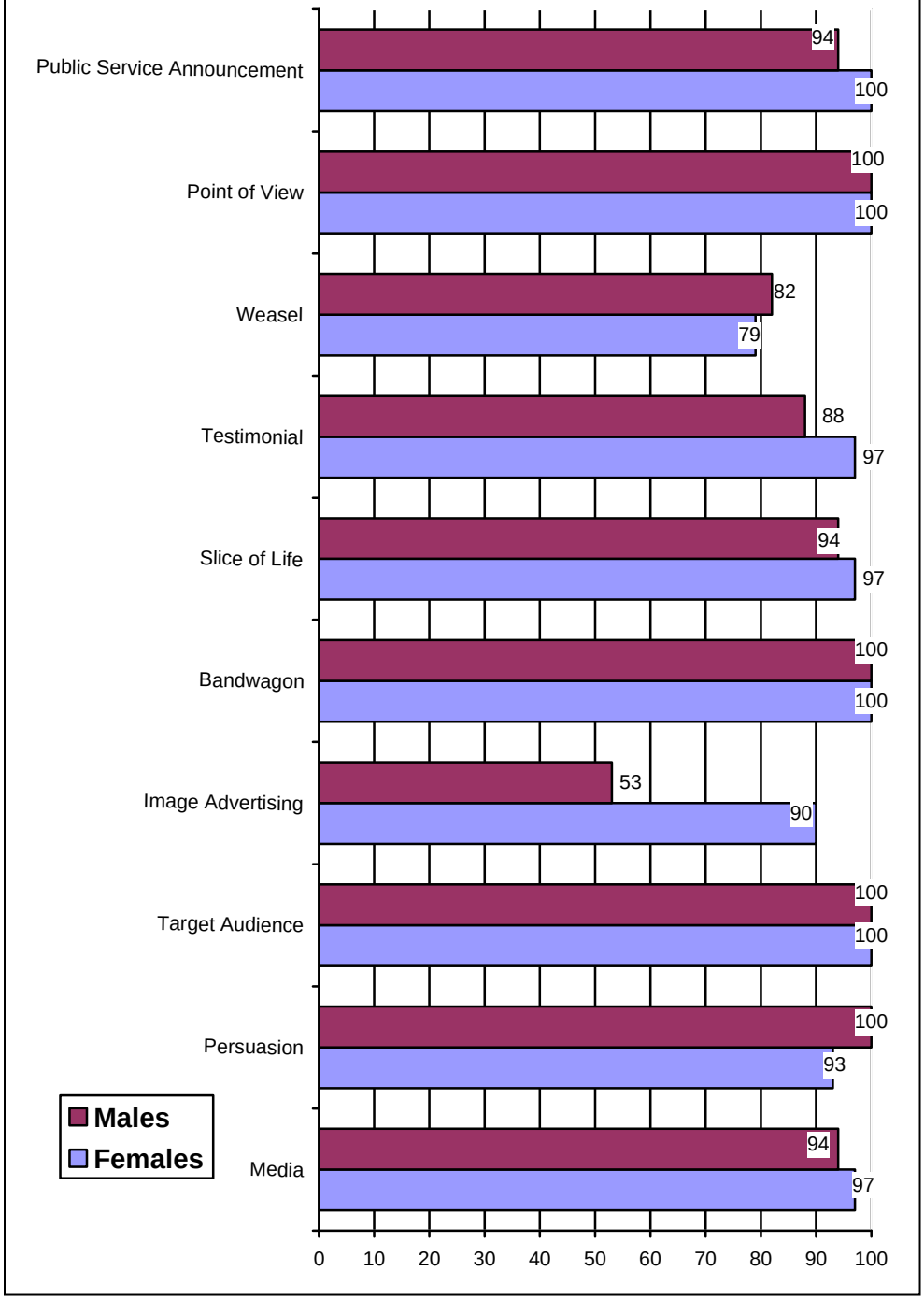
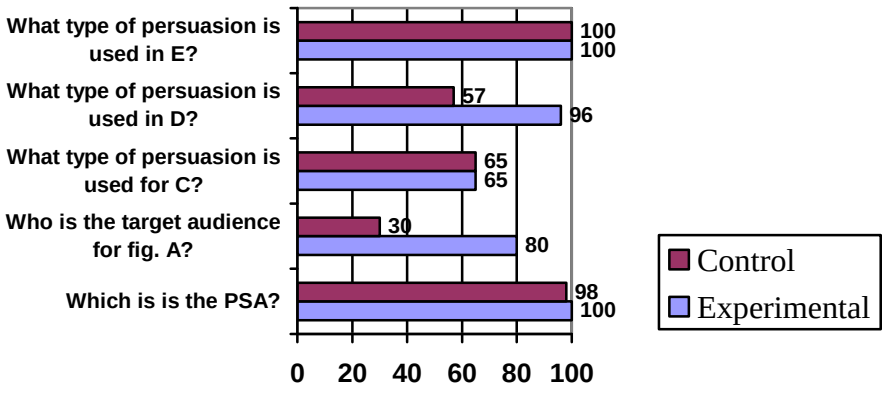


Figure 22
Percentage of Correct Vocabulary
Exerimental Group



Print advertisement application (RQ2, H1). Students were provided with five different print advertisements on the first day of testing and were asked to identify the advertising technique used (Table 9). The advertisements selected for the students included items that ranged from easy to more difficult-to-identify persuasion techniques. The print advertisements included: MasterCard, The Candie's Foundation (women's clothing store), Winterfresh Gum, an Anti-Drug advertisement for parents, and Burberry men's clothing (Appendix NN).

Figure 23
Media Literacy Skill for Print Advertisements
Percent Correct



Students in the experimental group outperformed students in the control group for each of the five application questions. For the more difficult to identify persuasion techniques, students in the experimental group were correct twice as frequently as the control group (Figure 23 reports percentages).

Not only were students in the experimental group better able to identify persuasion terms, they were also better able at applying the concepts they learned to print

advertisements. These data support the hypothesis that students in the experimental group exhibited more knowledge about types of persuasive techniques. Students in the experimental condition were better able to process the advertisements. As with the vocabulary matching items, a gender difference was not observed.

Student Attitudes toward Smoking & the Media (RQ3)

The third research question considered if media literacy activities had an effect on student cognition and attitudes. Although students produced their own animated anti-smoking public service announcements, it is important to note that students did not analyze tobacco advertisements during the curriculum. Attitudinal questions for the following hypotheses were collected on the first day of testing. Three hypotheses were identified in support of the research question (Table 1 identifies each hypothesis). The first hypothesis considered if student attitudes toward smoking were different between the experimental and the control group.

The second hypothesis considered if students who participated in the media education program would be more enthusiastic about school and working collaboratively. The fourth hypothesis considers if students who participated in the media education curriculum had different attitudes toward advertising and media use.

Opinion of cigarettes (RQ3, H1). The first hypothesis stated “Students who participate in a media education program will have more negative opinions toward tobacco use than students who do not participate”. This hypothesis was proposed because students who participated in the study were asked to create an animated public service announcement against tobacco use even though the curriculum did not cover the negative effects of smoking or tobacco advertising. Students were asked to respond to two

semantic differential scales related to cigarettes. Unlike other measures used in this study, this measure did not have a prompt. It simply asked students to report their attitudes toward cigarettes (results reported in Table 10).

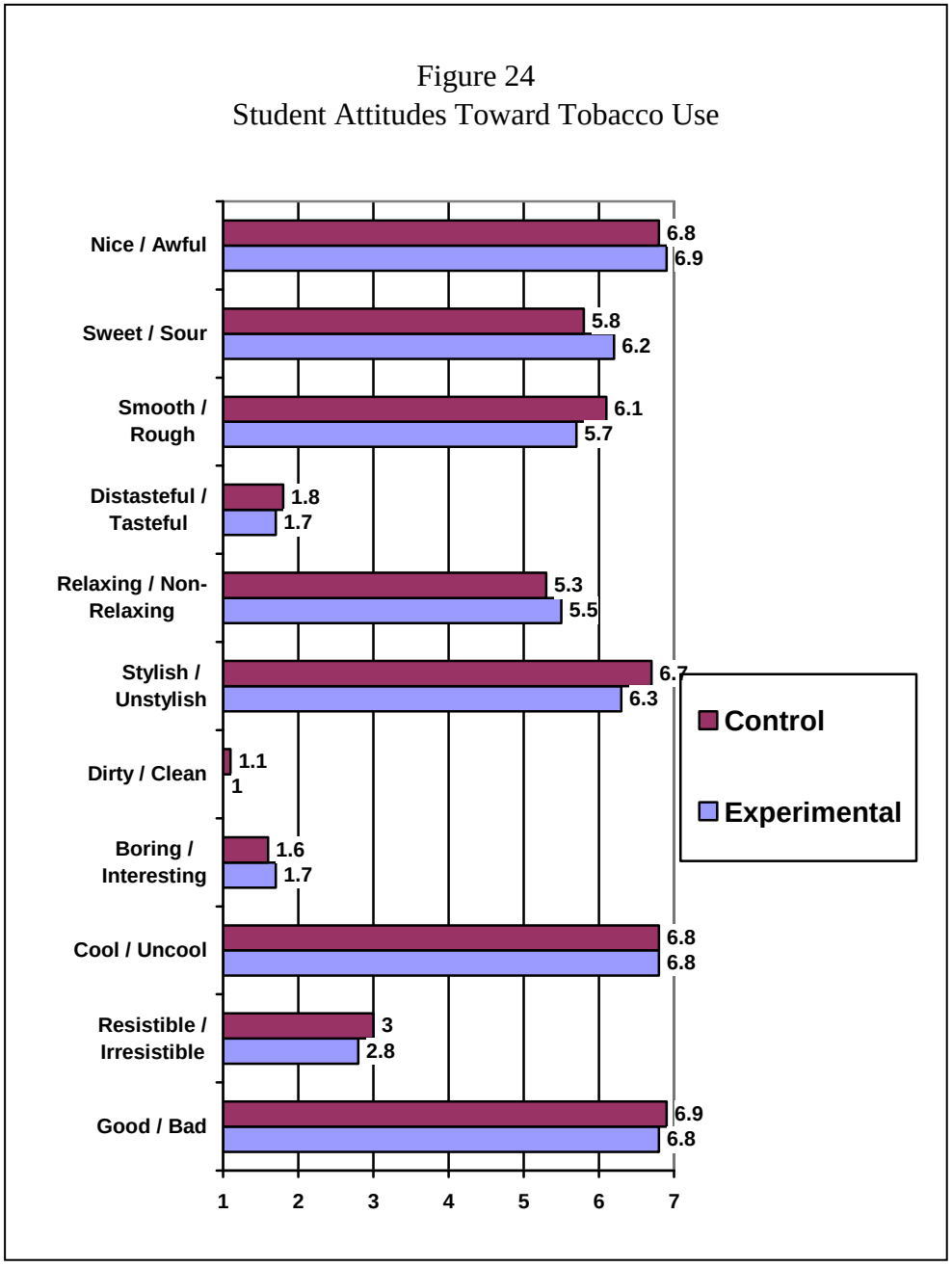
The word pairs for the first scale included the following: good/bad, resistible/irresistible, cool/uncool, boring/interesting, dirty/clean, and stylish/unstylish. No significant differences were observed. One word pairing "stylish/unstylish" approached significance. Students in the experimental group (M = 6.3, SD = 1.6) were slightly more likely to find cigarettes stylish than the control group, directional independent samples t-test (M = 6.7, SD = .75) $t(89) = 1.46$, p = .07. It is possible that students in the experimental group found cigarettes more stylish that students in the control group because they used them in their animated production. Using cigarettes in creative ways in the public service announcements may have encouraged the students in the experimental group to see them as more stylish. No significant differences were identified between the groups for any of the other pairings. Although approaching significance, the findings do not support the hypothesis.

Students were also asked to respond to three statements about their attitudes toward smoking on a scale of 1 (strongly disagree) to 5 (strongly agree). The statements included: "I believe smoking is bad", "I believe smoking occasionally at parties is okay" and "I believe staying away from smoking is good". No significant differences were observed between the groups. This finding does not support the hypothesis. Figure 24 reports mean scores.

Student enthusiasm and group work (H2).

Media literacy educators have claimed that students who participate in a media education curriculum express a greater interest in school and working in groups. In order to determine if student attitudes toward school and working as a team member were altered as a result this curriculum, they were asked to respond to the following statements on a seven point likert scale (1 = strongly agree through 7 = strongly disagree): “Working on a project alone is more important than working in a team”, “Working in a team is more interesting and exciting than working alone”, “I enjoy school”, “I like language arts class”, and “I like social studies class” (Table 12). Responses to these items except “I enjoy school” showed significant differences between the experimental and control groups.

Figure 24
Student Attitudes Toward Tobacco Use

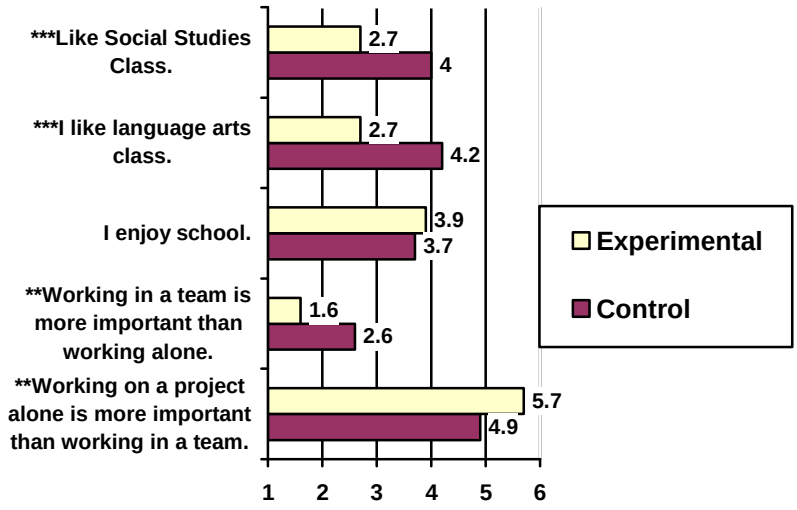


An independent samples t-test revealed that students in the experimental group (M = 5.7, SD = 1.5) were less likely than students in the control group (M=4.9, SD = 1.55) to agree with the statement "Working on a project alone is more important than working in a team," directional $t(87) = 2.5$, $p < .00$. Students in the experimental group disagreed more with this statement than students in the control group. In other words,

students in the experimental group reported it was more important to work in a team rather than alone. This finding is encouraging because students were asked to work in teams for most of the curriculum. This finding supports the hypothesis.

Students in the experimental group were also more likely to agree that working in a team is more interesting and exciting than working alone. Students in the experimental group (M =1.57, SD = .97) were much more likely than students in the control group (M=2.6, SD = 1.6) to agree that they enjoyed working in a team, directional $t(86) = -3.61$, $p < .00$. A lower score (1) indicated stronger agreement with the item. Considering the last weeks of the curriculum involved students working collaboratively to develop anti-smoking PSA's these findings are extremely positive. Students who worked on group projects reported enjoying working in a team more than students who did not. These findings also support the hypothesis.

Figure 25
Mean Scores for Attitudes
Toward School and Group Work



Student enthusiasm for school (H3). Educators continue to look for ways to excite and engage student learning. Media educators claim that when teachers use media literacy principles in class, students are more enthusiastic about learning. If students like school, they should be more motivated to learn. This study considered whether or not students who participated in a media literacy curriculum expressed different attitudes toward their classes than students who did not participate.

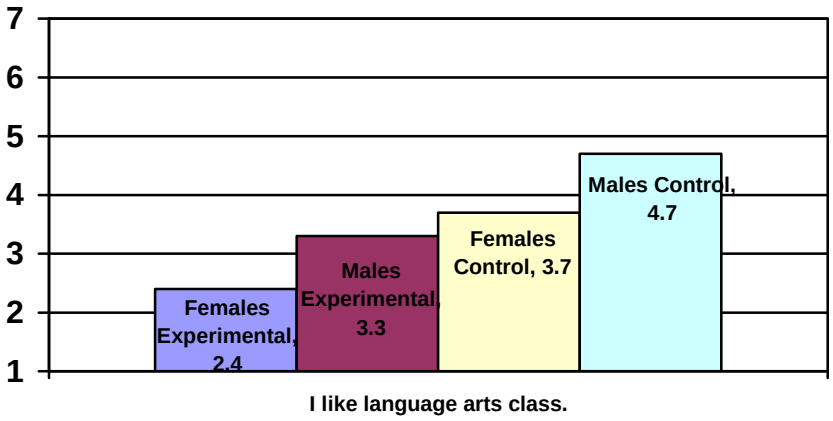
Data reveal students in the experimental group (M=2.7, SD=1.3) more strongly agreed that they liked language arts class than students in the control group (M=4.19, SD = 1.7), directional independent samples t-test, $t(86) = -4.58$, $p < .00$. The experimental group (M=2.7, SD=1.5) also reported a stronger liking for social studies class than students in the control group (M=3.95, SD=1.8), $t(87) = -3.33$, $p < .00$. These findings can be interpreted in two different ways. It may be the case that students in the experimental group liked their teachers more. Or, it may be the case that students in the experimental group were excited about what they were doing in language arts class, and this feeling carried over into other classes. Their excitement was shared with other teachers, in this case the Social Studies teacher, and this may have encouraged the Social Studies teacher to add more media related items to class than he otherwise would have had the media literacy curriculum not occurred. These findings support the hypothesis, but must be interpreted cautiously.

When gender is considered for these same measures, one important difference is observed for both conditions on the item “I like language arts class”. Females (n = 30) in the experimental group reported liking language arts class more than males (n = 15) with a directional $t(43) = -2.4$, $p < .01$. This trend is also observed in the control group with

females (n = 22) liking language arts class more than males (n = 21) with a directional $t(41) = -2.1$, $p = .02$. Table 23 reports results for both conditions. Figure 26 reports mean scores; a lower score on the scale indicates more liking.

Females in the experimental group reported the highest level of liking of language arts class, while males in the control group reported the least. While females liked language arts class more than their male counterparts, there is a clear difference between the experimental and control groups. This finding supports the hypothesis and is a good indication that the curriculum had an influence on student attitudes toward language arts class.

Figure 26
Mean Scores for Liking Language Arts Class



However, this feeling did not carry over to student attitudes toward enjoying school. There was not much difference between the experimental group and the control group in terms of agreement with the statement “I enjoy school”. In fact, mean scores for the experimental group (M = 3.9) are slightly more negative than the control group (M=3.7). What this may reveal is that students in the experimental condition became more aware of how much their other classes lacked in comparison to what they were

doing in language arts. This finding is important because it reveals that while a student may like one or two classes this feeling does not necessarily transfer to the "school" experience. However, it strongly points to the individual importance and impact of teachers and the curriculum in the classroom.

Student attitudes toward the media and media use (H4). Media education teaches five core concepts related to all types of media. The concepts include: media are constructed, media messages are constructed using a creative language with its own rules, different people experience media messages differently, media have embedded values and points of view, and most media messages are constructed to gain power and/or profit (Center for Media Literacy, 2005 media kit online). This study considered whether or not students who participated in the curriculum were more aware of these concepts as well as their individual attitudes toward the media. Many of these attitudes are indirectly related to the core concepts mentioned above. Of the 19 likert-type items asked on a scale of 1 (strongly agree) through 7 (strongly disagree), 7 items showed significant differences between the groups (Table 12).

Students in the experimental group more strongly agreed that "People who create media think a lot about how to get people interested in watching, reading or listening". The experimental group (M = 1.3, SD .65) and the control group (M = 1.7, SD = 1.33) differed with a directional reported $t(87) = -.209$, $p < .02$. Students who participated in the program more strongly agreed that media creators think (i.e., plan) about how to get audiences interested. This finding supports the hypothesis that considers whether or not students who participated in the curriculum had different attitudes toward advertising and the media.

In addition to recognizing that media creators are mindful of the creation process, students in the experimental condition recognized that “People are likely to understand the same media messages differently”. Students in the experimental group (M = 2.3, SD = 1.7) differed from the control group (M = 2.8, SD = 1.49) with a directional $t(87) = -1.88$, $p < .03$. Students in the experimental condition reported being more sensitive to differences in the point-of-view or interpretation of the viewer. This is another indicator of media mindfulness and a core media literacy skill. This finding supports the hypothesis.

Thinking about how advertisements are created. When students were asked, “When I watch television advertising, I think about how and why the ad was created”, students in the experimental group were more likely to agree. It should be noted that, on average students in the experimental *and* the control group reported more disagreement with this statement than many of the other statements. However, the experimental group (M = 4.2, SD = 1.86) and the control group (M = 5.3, SD = 1.55) differed significantly in their responses, directional $t(87)$ -2.9, $p < .00$.

The fact that students disagreed, overall, with the statement is not surprising given the prior research that states people tend to ignore or discount advertising all together. The fact that students in the experimental condition more strongly agreed with the statement is a positive indication that the curriculum did have an effect on how students were processing advertisements at home. It is important to point out that another goal of media education is to encourage mindful viewing so that the viewer is aware of the constructed nature of the media consumed. This finding supports the hypothesis which

considers whether or not students who participated in the curriculum processed advertisements differently than the control group.

Creating commercials. Students were asked to what extent they agreed or disagreed with the statement “Creating and making commercials is easy”. By recognizing it takes a great deal of time and energy to create different types of media, specifically advertising, students become more aware of the specialized knowledge needed to develop these messages. Developing an appreciation for the challenges associated with the creation and production process, students are better able to attend to media messages. Students in the experimental group ($M = 6.4$, $SD = 1.86$) were more likely to report disagreement with this statement than students in the control group ($M = 5.28$, $SD = 1.7$) with a directional $t(87) = 3.7$, $p < .00$. In other words, they more strongly agreed that it is not easy to create and make commercials.

Students who participated in the curriculum most likely realized the amount of work required to create advertisements because they created their own. They were asked to consider issues and challenges of message development such as target audience when they created their own animated PSA’s. This finding supports the hypothesis that students who participated in the curriculum were thinking differently about advertising.

TV commercials portray real life. When asked to respond to the statement “TV commercials do not show life as it really is,” students in the experimental group ($M = 3.3$, SD 1.4) were less likely to agree with the statement than students in the control group ($M = 2.7$, $SD = 1.47$), directional $t(87) = 2.03$, $p < .02$. While one might assume that students who participated in the program would be more likely to agree with this statement, it may be the case that students developed an appreciation that advertising does, in fact, reflect

life. Advertising does appeal to things we want, desire, or think we want. Advertising messages target specific people because the creators understand what is important to those they attempt to persuade. If advertising did not reflect life to a certain extent, it would not be effective.

Target audience. Reporting a more mindful perspective about advertising, students in the experimental group (M = 3.5, SD = 1.5) were more likely to agree that "Advertising shows me what type of people like and use certain products" than students in the control group (M = 4.1, SD, 1.8) with a $t(87) = -1.7$, $p < .05$. This response indicates that the experimental group was more aware of how advertising targets particular audiences by using signs/signals in the advertisements that reflect the target audience.

Product placement. Students in the experimental group (M = 2.3, SD = 1.2) were also more likely to agree with the statement "Products (such as cigarettes) are used by actors in movies to sell the product" than students in the control group (M = 3.28, SD = 1.8), non-directional $t(87) = -3.0$, $p < .00$. Product placement was informally discussed with students in the experimental group during curriculum instruction. However, cigarette product placement was not specifically emphasized.

Results indicated students in the experimental group had different attitudes toward the media and media use. Taken together, students in the experimental group appear to show more mindful attitudes regarding media indicating a higher level of media literacy. These findings support the hypotheses that considered whether or not students who participated in the curriculum had different and/or more realistic attitudes about the media and advertising.

When gender is considered, we find that there are interesting trends in the data. Males in the control condition have more strongly held attitudes of agreement (or less strongly disagree) on four of the attitudinal measures. Males in the control group are more trusting of brands advertised on TV, more strongly agree that media producers are influenced a great deal by the need to make money, believe that creating and making commercials is easy, and agree TV commercials do not show life as it really is. Males in both the experimental and control groups are also more likely to agree that TV advertising does not influence their decision about what to buy (results reported in Table 27; Figure 29 and 30 reports mean scores). Males in the control group trusted brands advertised on television more than those not advertised. They were also more likely to agree that making commercials is easy. The males were slightly more skeptical of advertising than the females in the control group, yet report trusting the brands advertised on television more than those not advertised.

Figure 27
Mean Scores for
Experimental Gender Differences

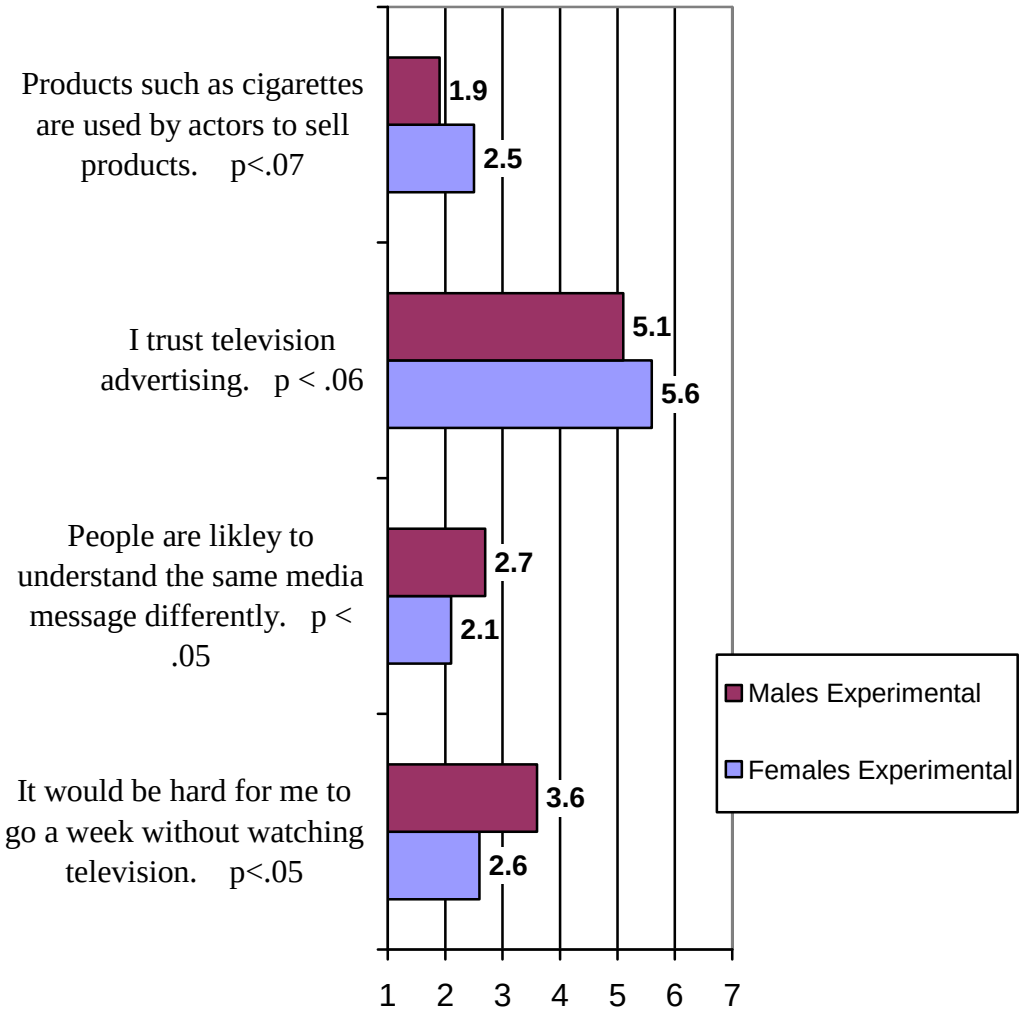
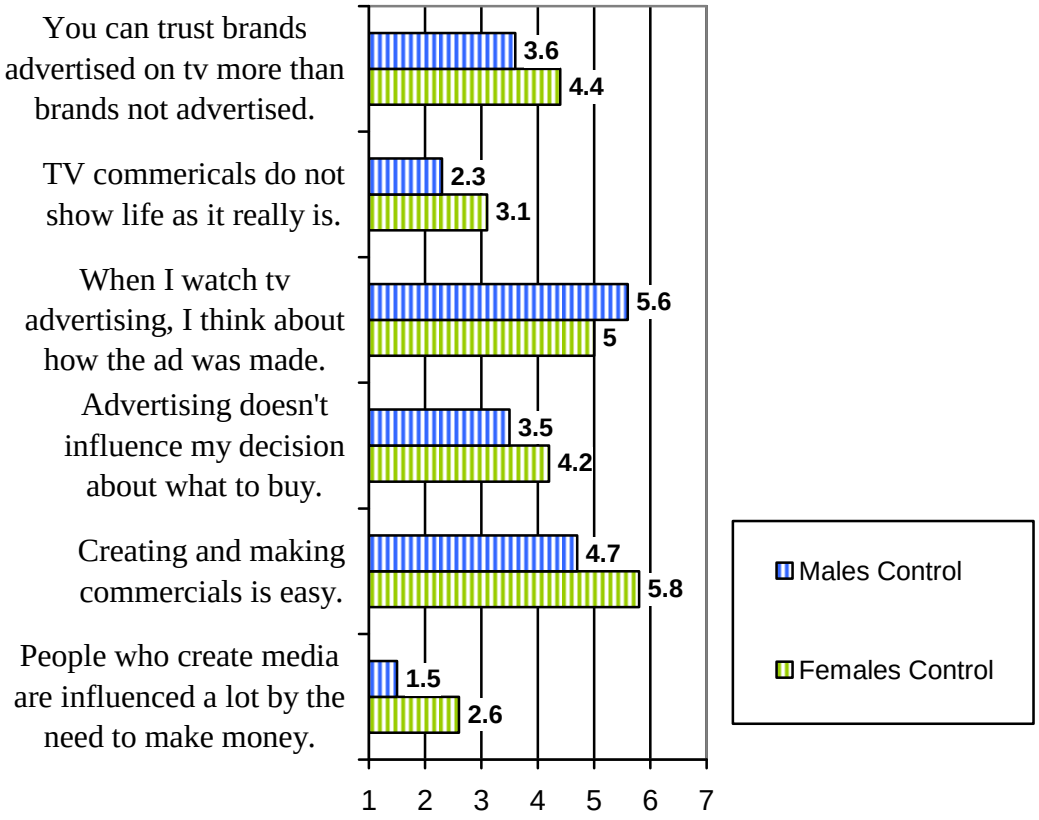


Figure 28
Mean Scores for Control Group
Gender Differences



CHAPTER V

RESULTS OF COGNITIVE THOUGHT LISTINGS

It is the mark of an educated mind to be able
to entertain a thought without accepting it.
Aristotle (384-322 BC)

Adverting is the greatest art form of the twentieth century.
Marshall McLuhan (1976)

This chapter reports the analysis of thought listings elicited from students on day two and three of testing while viewing two different advertisements. The purpose of analyzing student thoughts in this chapter is to determine the types of thoughts offered by students after viewing. Thought-listing techniques are commonly used in research by those who seek to understand what is occurring within individuals in relationship to some type of stimulus. In this study, students were asked to view one commercial each day and list as many and whatever thoughts they had about the commercial.

Data presented in this chapter were gathered to understand if students who participated in the media literacy curriculum had different thoughts than students who did not participate (RQ2, H2; RQ2, H3). RQ2, H2 stated, “Students who participate in a media education curriculum will think more (types of thought) about advertising while viewing than students who do not participate in a media education curriculum”. RQ2, H3 stated, “Students who participate in a media education curriculum will be more mindful of their viewing than students who do not participate in a media education curriculum”.

Thoughts were coded using a grounded theory approach allowing themes to emerge from the data. In order to understand thoughts in a more comprehensive way, thoughts were coded using AtlasTi software. Thoughts were coded automatically (by the

software program), individually (line by line) and in their entirety (as one complete thought about the advertisement). AtlasTi provided the researcher the ability to look for specific words or word grouping. The automatically coded words were identified by the software program, and checked to ensure accuracy by the researcher. Entire thoughts, not specific words, were identified and coded by the researcher, not by the software.

Students were asked to list thoughts (Appendix M for sample form). Depending on the student, the number of words used in each line of thought ranged from one to nine words. Some thoughts were coded more than once. How a thought (line) was individually coded depended on a variety of factors about the language used. This will be discussed in sections that follow.

Stimuli Material Description

Students were asked to view and respond to four different advertisements on two different days of testing. Thought listings were collected for two of the four advertisements. The advertisements used for the thought listing included a Diet Pepsi commercial and a Clearasil commercial. The Diet Pepsi advertisement, viewed second on day three, aired during the 2005 Super Bowl (see Appendix A for description of the advertisement). The Clearasil advertisement, viewed first on day two aired during the 2001 school year (see Appendix B for a description of the advertisement).

Coding Process

Student thoughts were entered into an AtlasTi data base. Each participant was given a number and a letter indicating whether he or she was a member of the control or the experimental group. The participant tags were not visible during the coding process.

The researcher was conscious of not identifying whether the student was in the control or experimental group during multiple coding sessions.

Coding of the data occurred over a three week period. Each coding session lasted from one to three hours each day. This is important to note for consistency purposes. In order to notice multiple layers within the data it is important to spend a reasonable amount of time coding during each session. It was also necessary to code some thoughts more than one time. In some cases, a thought could be coded as representing two or three different themes, depending on what was written. This process is common when coding data using a grounded theory approach.

Each case was entered by the researcher. This was the first step in becoming more familiar with the data. Using the literature as an informative base coupled with the first few readings of the data, the researcher identified terms for automatic coding by the software program. AtlasTi can look for specific words or themes as identified by parameters set by the researcher. Automatic coding categories included: self reference (use of I, me, myself), colors (red, white, blue, black, yellow, green, color, etc.), reference to others (he, she, they), and affect.

After auto-coding using the software, the researcher went back to check the data. The time spent revising, removing or adding thoughts already identified by the software occurred line by line within each case. As the process continued, new categories were added, they included: source discounting, production, actors, reference to product, and processing approach. Once this step was completed, the researcher checked all data again to ensure consistency across cases.

Individual words were checked across all cases to ensure that each word or word groups that referred to similar thoughts were coded similarly. For example, the use of I was identified by the software (e.g., "***I** was bored*"). However, students implied their own voice and use of I (e.g., "*bored*"). Bored was coded as a self-reference because the "I" is implied (*I was* bored). Because the software cannot detect this subtle difference, all thoughts were checked for consistency. This is important because in some cases the idea may have been implied, but would not have been picked up by the software program because the exact word was not used.

Finally, each set of thoughts was coded as either a mindful or mindless processing approach. This was a bit more challenging because it involved looking at the data set for each advertisement viewed in its entirety. The researcher developed a method for determining how a series of thoughts would be coded. The coding process for mindful/mindless processing is reported later in this chapter.

This chapter will first address each of the thematic thought listings separately. Mindful processing is addressed in the last section. This is necessary because each of the thought listings was used as part of the process to determine whether or not a grouping of thoughts was either mindful or mindless. It should be noted that thoughts, in their entirety, reflect a range of processing. In some cases, the thoughts lean slightly toward mindful because of one thought expressed by the student. Table 27 presents an overview of thematic findings.

Quality of Thoughts and Themes

Experimental groups three times as likely to refer to self. Referring to self while viewing an advertisement may indicate a more mindful engagement with the

advertisement. Although studies have not been done that specifically address mindful viewing of advertisements, scholars argue present moment awareness of self is a necessary component of mindfulness (Langer, 1993, 2000). "Mindfulness focuses our attention to the task at hand (Germer, 2005, p 3)." From a communications perspective, we know "the things we say and do and the way we interpret others' word and actions are a reflection of – and a statement about- our meanings, experiences, needs and expectations" (Ruben & Stewart, 2006, p. 86). It is quite significant that students in the experimental group were three times more likely to refer to themselves than students in the control. This may be one of the most significant findings of the study.

Most viewers vary in their activity or passivity when processing any message. Students in the experimental group referred to self more frequently than the students in the control group. Self-reference thoughts were first automatically coded by the software for the use of the word "I" or "me". Thoughts were also coded as self-reference when the use of I was implied, but not stated directly (Table 28). For example, "thirsty" was coded as self-reference because it implies *I am* thirsty or *I feel* thirsty. These statements must be taken within the context of the advertisement viewed. In this case, no one was drinking Diet Pepsi in the advertisement.

Students in the experimental group account for 77% of the self-reference thoughts while students in the control account for 23% of this type of thought. Students in the experimental group expressed forty-six self-reference thoughts, while the control expressed fourteen self reference thoughts.

The *types of thought* students in the experimental group exhibited were also slightly more involved for self-reference. For example, students in the experimental

group stated “it makes me think of my friends”, “I could kick that guy’s butt at arm wrestling” and “I would never drive a diet Pepsi truck”. In each of these examples, the students are clearly identifying with the “story” of the advertisement. The first two refer to the Clearasil advertisement where a group of teenage friends is dancing and having fun. During the ad, two actors arm wrestle each other. The student’s statement “I could kick that guys’ butt at arm wrestling” reveals his internal reaction to what he is viewing. He places *himself* in the advertisement. This could be said of the other comments as well. Although this statement may sound odd for an adult to say, it is quite revealing for an eighth grader.

The students in the control group *did not* exhibit similar types of involvement. While one student notes “it was very enjoyable and humorous”, he or she doesn’t place him/herself into the story of the advertisement. In fact, none of the students in the control group appear to exhibit this type of involvement.

Indeed, even how students refer to themselves in the self-reference thought listings is different between groups. Students in the experimental group use the word “I” or “me” in 74% of their self-reference thoughts (34 out of 46 quotes). Students in the control group use “I” or “me” in 50% of the thoughts listed for self-reference (7 of 14 thoughts). Students in the control group imply that they are referring to themselves, but rarely state it directly.

Affect. When student thoughts in the experimental and control group are compared, students in the experimental group are more likely to identify their own affect than the control group. Affect auto-coding first included the terms: funny, happy, exciting, laugh, or pleasure. Upon further analysis additional terms were added.

Additional affect thoughts related to either how the student felt while viewing or the feelings expressed by the actors in the advertisement. If either type of affect was mentioned, the thought was coded as affect.

When all affect thoughts are combined between the groups, students in the experimental group account for 70% of all affect related thoughts (results reported in Table 29). What this may reveal about the difference between the groups is that students in the experimental group more readily notice the emotions they experience or the actors in the advertisement exhibit because they find the viewing of the advertisement more enjoyable. It may also indicate that when advertisements are viewed from a "story" perspective, viewers tend to pay more attention to the "characters".

Affect thought-types were somewhat different between the groups, but only in terms of the affect of the actors. Three of the 58 thoughts coded for the control group related to the affect related to the actors. They include the following: "the people are happy", "using kids that look happy" and "funny people". The experimental group expressed 19 (of 135) thoughts referring to affect of the actors, they included the following examples: "people having fun", "everyone is nice to each other", "everyone is really happy", "they were happy", "they were having a lot of fun", "they enjoyed using the product" and "excitement and happiness in the truck". Although not a substantial difference in the quality of the thoughts between the control and experimental group, the experimental group does identify the affect of the actors much more frequently than the control group. This may have had more to do with gender differences between the groups than the curriculum. However, at this time, it is not possible to test for gender differences. Future research should further explore this possible explanation.

Source discounting, less common with experimental group. It is not surprising that students would negatively assess the advertisements used in this study. However, it is important to note that the curriculum *did not* encourage students to dislike advertising. Quite the contrary, students who participated in the program were encouraged to enjoy advertising. Although many people tend to negatively perceive and discount advertising all together, it did not occur to the researcher to initially code for this type of thought. Because there is such a range of negative thought types (language used to express) it was not possible to automatically code for these types of thoughts. Source discounting thoughts were identified by the researcher during the coding process. The thoughts were identified individually within each set of thoughts. Negative thoughts toward the advertisement or product were coded as source discounting. The following include examples of source discounting thoughts (Table 30 reports results): “pointless”, “strange”, “kind of unrealistic”, “fake”, “stupid”, “boring”, “dumb” and “corny”.

Students in the control and the experimental group were evenly divided in terms of the raw number of this type of thought. The control group reported 32 source discounting thoughts while the experimental group reported 38. This is particularly interesting because students in the experimental group did list twice as many thoughts as the control group, overall. In other words, of any of the thought listings, this grouping is most similar between the groups even though the experimental group listed twice as many thoughts overall.

Students in the control and the experimental group discounted both advertisements in various ways. Source discounting thoughts could have been negative toward the product and/or the advertisement. However, almost all of the thoughts coded

as source discounting related to the advertisement, not the product. Only one thought "yeah right I'm sure it works" (from a student in the experimental group) related specifically to the product.

All of the other thoughts for both the experimental and control group referred to either the production aspects of the advertisement or the lack of perceived consistency between the product and how it was advertised. For example, students in the experimental group reported the following types of thoughts: "strange", "fake", "very unrealistic", "the commercial didn't really have anything to do with the product", "weird", "the music they chose was weird" and "the advertisement was not related to the product". Students in the control group listed similar types of thoughts: "boring", "pointless", "fake looking", "no point to it…doesn't relate to skin", and "that was a stupid commercial-doesn't appeal to teenagers as cool".

Overall, the nature and the content of the thoughts were relatively similar between the control and the experimental group when it came to source discounting. However, of the thirty-eight negative thoughts found in the experimental group, seventeen students in the group account for all of the thoughts. In other words, less than half of all students in the experimental group expressed source discounting thoughts.

Of the thirty-two thoughts listed for the control group, nineteen students or 60% were responsible for the source discounting. Forty-five percent, or less than half, of the students in the experimental group source discounted. This finding supports the quantitative data as well as the objectives of the curriculum. The curriculum was designed to encourage an appreciation of advertising, not to reinforce possibly held negative attitudes.

Proportionally, students in the experimental group did not list negative, source discounting thoughts as frequently as the control group. Because students in the experimental group had more thoughts overall, they produced fewer negative thoughts overall. What it may reveal is that students in the experimental group were less likely to source discount than the control group because they were more interested in viewing the advertisements. One of the purposes of the curriculum was for students to appreciate advertising, not ignore or source discount all together. As has been mentioned previously, source discounting is one of the reasons people tend to believe that they do not attend or pay attention to advertisements.

Production, elements of color noticed by experimental group. Production elements of any moving image incorporate a variety of different technical elements. Production thoughts were coded individually. During the coding process, three general themes emerged from the data, they included: 1) thoughts about the music; 2) thoughts about the colors; and 3) editing conventions. Table 31 reports results and examples for production. Of all thoughts related to production, the primary difference between the control and experimental groups were those thoughts related to the use of or lack of color. Examples of production related thoughts include: “up-close shots of face”, “music is loud”, “different settings”, “colorful”, “90’s” and “no words”. Table 32 provides examples and a summary of findings for colors.

Of all thoughts related to production (118), students in the experimental group generated 63% of the thoughts while the control group generated 37%. Thoughts related to sound and/or music in the advertisements was similar between the groups. Examples of production thoughts about sound include: “music is loud”, “cheesy music”, “there was no

talking", "upbeat music", "the music catches your attention" and "lame music". But for the number of thoughts, there is very little noticeable difference between the groups regarding sound related thoughts or editing conventions. Only four thoughts, combined between groups, were clearly related to editing conventions of the advertisement, they included, "quick flashes of product", "quick flashes", "up-close shots of face", and "a lot of slides - i.e. editing".

However, there was a noticeable difference between the control and the experimental groups in terms of color-related thoughts. Thoughts related to colors in the advertisement were primarily identified by students in the experimental group. Because of the large number of color-related thoughts they were double-coded as "production" and "colors". Of all thoughts related to color (29 thoughts), 25 or 85% of them were generated by the experimental group. Only 4 thoughts or 14% percent of the total were generated by students in the control group. Color-related thoughts included terms such as "white", "creative & colorful", "colorful", "colorless", "pictures are bright" and "the rooms were all white and the people were wearing bright colors". The implications of this finding may be related to the fact that students in the experimental group created their own animation where they colored (with colored pencils) different elements of their drawings. As such, elements of the advertisement related to color may have been more salient to them.

During the course of the curriculum, students were instructed to notice different techniques that gained the attention of the viewer. These data suggest that when students create their own advertisements, they are more inclined to identify those production elements related to what they themselves produce. Coloring the drawings gained their

attention while they created the PSA's. They were more likely to notice the use or lack of color in other advertisements they viewed. The production aspects of the curriculum coupled with the critical questions of media literacy may have increased awareness of the formal features, in this case use of color, of the advertisements.

Reference to product. Coding product references was done by the researcher, not the software. Several themes emerged from the data coded as product. The following thoughts were coded as product related: thoughts where the product's name was mentioned (Pepsi, Diet Pepsi, or Clearasil), thoughts that question the relationship between the product and the advertisement, the effect of the product on the user or the student, and thoughts where students question whether or not the product works (these were primarily for the Clearasil ad).

Students in the experimental group identified 63% of product-related thoughts. Table 34 reports examples and results. Thoughts for product include the following examples: "after seeing the commercial, I would buy it [Clearasil]", "he got a ride from a Diet Pepsi truck", and "Pepsi is good". There was no noticeable difference between the product thoughts listed by the experimental or the control group. But the thoughts that refer to the product in some way do vary tremendously. In some cases, only one word was used "Pepsi". Obviously, very little thought went into such a thought listing. In other cases, students wrote, "it [Clearasil] makes pimples go away". There were no substantial differences between thoughts expressed by students in the control or the experimental groups when evaluated from the product reference theme.

Overall, these findings support the hypothesis (RQ1; H4). Students who participate in a media literacy curriculum elicit different types of thoughts when

consuming advertisements than students who do not participate. Specifically, this is seen in students' self-referencing thoughts and student's attention to production elements of the advertisement.

Mindful vs. Mindless Processing

Methodology for coding thoughts. In order for a group of thoughts to be coded as mindful, the thought listings needed to include at least three different types of thought (themes or sub-themes) and at least one of the thoughts had to exhibit an evaluation (favorable or unfavorable) of the advertisement or the product. In some cases, the different types of thought were exhibited in one line thought (this typically included more than two or three words). The number of thoughts a student exhibited did not determine whether or not the grouping was coded as mindful or mindless, although this was taken into consideration. The variation in the types of thoughts exhibited by the student taken as a contextual whole was the best indicator for whether or not the student was critically thinking (i.e., mindful) about the advertisement. Table 35 presents summary statistics for type of thought, type of advertisement, and condition.

Because two different advertisements were used in the study, it was important to evaluate the thought groupings as they related to the advertisement viewed. The evaluation of the thought-group, to a large extent, was contextually bound to the advertisement. The thematic data presented earlier did not need to be discussed in terms of the advertisement viewed, although it was taken into consideration to understand individual thoughts. For this analysis, the type of advertisement was important to whether or not the cognitive responses were mindful.

In order to accurately code and assess a grouping of thoughts as either mindful (critical) or mindless it was necessary to consider the stimuli material. Therefore, data discussed in this section are considered within each of the stimuli conditions (Ad1 or Ad2) as well as the condition (experimental or control). In order to gain a better understanding of how the groupings were coded a few examples with explanations are provided.

Mindfulness and Mindlessness, Examples. There were times during the coding process when it became apparent that more thoughts listed did not always indicate mindfulness. For example, a student in the experimental group listed 12 different thoughts regarding the Pepsi commercial but the grouping was coded as mindless. Although there were multiple thoughts, all thoughts related to peripheral aspects of the ad. The terms included the following: "hot, sunny, flashy, funny, famous, impressing, colorful, dull, simple and energetic." Table 36 presents mindless processing exemplars.

The terms listed indicate the student viewed the advertisement and basically listed thoughts reflective of what he or she had seen. Very little critical analysis, reflection, or thought went into his or her thoughts while viewing. Variation and depth of thought were not apparent in this grouping of thoughts so it was coded as mindless. There are other instances when this type of thought-group occurs for both the experimental and the control groups.

On the other hand, fewer thoughts did not indicate less thought or mindlessness. For example, a student in the control group listed the following thoughts: "they used the target audience – teenagers", "they showed the product being used", and "they used people with clear skin, so you don't know if it really works". Although only three

thoughts are listed, the thoughts identify the target audience (production/demographics), actors using the product as part of the advertisement, and the appearance of the actors. Finally, the thoughts progress to where the student ultimately questions whether or not the product works. This thought grouping reflects critical evaluation and analysis of the advertisement as well as the product being advertised. Thought groupings similar to this type were coded as mindful. Table 37 mindful exemplars.

There were also instances where the thought listings bordered on mindless processing, but were coded as mindful. For example, a student in the experimental group listed the following thoughts: “fun”, “funny”, “dance beat”, “light colors”, “teenagers were using it”, and “it said it would work, possibly not true”. The first three thoughts are relatively peripheral, however, the student’s thought is varied. “Fun” (reflects affect of actors), “funny” (reflects affect of student), “dance beat” (refers to the use of music - production), “and light colors” (production-colors). If the student had stopped here, the thoughts would have been coded as mindless. However, the student continues with “teenagers were using it” (production/demographics). This thought is also related to production aspects (as a sub-category). The last thought, “It said it would work, possibly not true”, was the final thought needed to code the grouping as mindful. Here the student evaluates the product. All of the conditions are met for the grouping to be considered mindful and critical.

There were instances when a student had a great deal to say about one particular aspect of the advertisement, but did not vary in his or her thought. These types of thought groupings were coded as mindless. A student in the experimental group listed the following thoughts: “P. Diddy’s car broke down”, “He got a ride from a diet Pepsi truck”,

"He pulled up in the truck", "everyone copied him", and "diet Pepsi trucks were the new fad". While this student does a good job of retelling the story of the advertisement, he or she does not go beyond regurgitating what was just viewed. There is no analysis, evaluation or reflection about the product or the advertisement. In order for a group of thoughts to be considered mindful, the thoughts had to reflect variations and involve some type of analysis or evaluation, as stated earlier.

Experimental group, higher levels of mindful processing. Students in the experimental group exhibited higher levels of mindfulness regardless of condition (Ad1 or Ad2). Overall, students in the experimental group exhibited twice as much critical evaluation. The students in the experimental group processed mindfully in 58% of their thought groupings. The control group processed mindfully in 24% of their thought groupings. Table 35 provides summary statistics.

The data suggest that students who participated in the curriculum were thinking more about the advertisements, their thoughts were more varied, and they were more likely to evaluate the advertisement and/or the product. These findings support the hypothesis (RQ2, H2). Students who participated in the media literacy curriculum exhibited more mindful processing than students who did not participate in the curriculum. Students who participated in the curriculum elaborated more when viewing advertisements than students who did not participate in the curriculum (RQ 1, H4). Overall, students who participated in the curriculum are better able and more motivated to process advertisements.

Clearasil ad, more mindful processing. Mindful processing occurred most frequently for the Clearasil advertisement for both groups (experimental and control).

Fifty-five percent of the thought listings (experimental and control combined) about the Clearasil advertisement were coded as mindful (45% of thoughts were mindless). On the other hand, mindful processing while viewing the Pepsi advertisement occurred in 28% of the thought groupings (72% of the thoughts are mindless). Students in the experimental condition processed the Pepsi advertisement mindfully 43% of the time (57% mindless processing). Students in the control group processed the Pepsi advertisement mindfully 12% of the time (88% of the thought listings are mindless).

The Pepsi advertisement did not directly argue in favor of the product, the Clearasil advertisement did. In other words, the persuasive techniques used in the Pepsi advertisement had more to do with bandwagon and celebrity endorsement and not with whether or not the drink tasted good or was refreshing. Indeed, the Pepsi advertisement could be considered a parody of both techniques.

It could be argued that the Diet Pepsi advertisement actually encouraged mindless processing. Advertisements which emphasize narrative story structure may actually encourage mindless processing. Mindless processing may also be related to the type of product being advertised, the persuasion techniques used in the ad, and the narrative structure of the advertisement. After all, Diet Pepsi is nothing more than carbonated caramel-flavored water. The arguments in favor of drinking it are rather limited when health considerations are taken into account. Using a narrative story structure to sell certain types of product maybe one of the ways advertisers discourage mindful engagement with the product. The viewer is more engaged with the story of the advertisement than the product it is attempting to sell. This finding may reveal that in certain conditions, ability and motivation play an even greater role in how a person

processes an advertisement. In other words, how the product or service is presented in the advertisement also plays a role in whether or not a viewer will process mindfully. However, if the individual is able and motivated to process mindfully, he or she will do so regardless of the stimuli material.

Chapter VI

CONCLUSIONS

> Anyone who tries to make a distinction
> between education and entertainment
> doesn't know the first thing about either.
> -Marshall McLuhan

This chapter presents a number of general conclusions from the results of the quantitative and qualitative analyses of the data gathered in this study. It also situates the application of these findings within the new media landscape (Jenkins, 2006). The media education community should continue to study how media literacy curriculum approaches may shape audience attitudes, ability and motivation to process mediated content. According to the Pew Internet & American Life Project (Lenhardt & Madden, 2005) more than half of all teens produce their own media content-- of these about one-third disseminate what they have produced. Yet, too few teens are provided formal media literacy education even though most state core curricula call for this type of instruction (Kubey & Baker, 1999). This fact should concern parents, policy makers and educators.

In the past, many considered media consumption a leisure activity. Today, new media technologies are changing the ways we engage with media content (Jenkins, 2004). Old and new media consumption and production require the development of specific skill sets and thinking processes so that audiences are mindful of their consumption. The findings presented in this study support the importance of content specific media education approaches and provide additional insight into how the cognitive processing of media content (specifically advertising) may be shaped through media literacy curriculum approaches.

This study attempted to answer the question of whether or not a media literacy curriculum, focused on advertising, had an effect on students' motivations, attitudes and ability. Students who participated in this study were thinking differently about the media in general, advertising specifically, and they had a greater knowledge base than students who did not participate in the curriculum. Overall, it can be said students were more mindful while viewing advertisements. Although flow states were not achieved, students who participated in the curriculum were more likely to exhibit factors which contribute to a flow state. This was shown through intrinsic motivation to process advertisements, affective responses and cognitive thought listings. General findings, limitations, and future research will be discussed in the pages to follow.

RQ1: Are students who participate in a media education curriculum more intrinsically motivated to process advertisements than students who do not participate in the curriculum?

RQ1 sought to understand how media education activities may alter the cognitive processing of advertisements, specifically the intrinsic motivation to process advertisements. The hypotheses considered the following variables as indirect measures of "intrinsic motivation to process": affect while viewing, desire to engage with message, involvement with message, and attitudes toward media (generally) and advertising (specifically). Many of the intrinsic motivation items were similar to measures used to understand flow states (Csikszentmihalyi, 2006; Kubey & Csikszentmihalyi, 1990). Therefore, the following section will also address trends and statistical significance in the data which support a flow experience while viewing.

Hypothesis 1 (RQ1:H1)

The first hypothesis proposed that students who participate in a media education curriculum will indicate more involvement with advertisements while viewing than students who did not participate in the curriculum. Involvement while viewing was measured using ten affective state traits, including: happy, strong, irritable, suspicious, free, tense, creative, active, excited, and alert.

Although differences between the groups were not statistically significant on many of the affect items, students in the experimental condition tended to feel happier and more skeptical while viewing the *animated* advertisement. This is significant. We know flow states occur under conditions where people enjoy what they are doing (i.e., happiness) and are more challenged (i.e., skeptical). Students may have been more skeptical because they were thinking harder. In this study, the differences only occurred while viewing the animated advertisement. As a result of the curriculum, students who created their own animated advertisements report more happiness and skepticism while viewing the animated advertisement.

Affect measures remained similar between groups when viewing the MasterCard advertisement. No measurable differences were observed. This is a bit surprising given the fact the advertisement did use computer animated graphics. The data indicate students in the control group were a bit more engaged with the MasterCard advertisement than the Frosted Flakes advertisement, although not more so than students in the experimental condition. This was most likely the result of the type of advertisement. Arguably, the MasterCard advertisement was more novel than the Frosted Flakes advertisement because of the use of computer animation set in a real world setting. Advertisers regularly use this technique to capture and maintain attention (Eighmey & Sur, 2007). The affect scores for

students in the experimental group remained similar for the viewing of either advertisement. Therefore, the noticeable differences occurred during the viewing of the Frosted Flakes advertisement. Students in the experimental group were slightly less likely to apply simple heuristics while viewing either advertisement. Students in the control group were more likely to apply simple heuristics while viewing the Frosted Flakes advertisement. This was indicated by lower levels of reported concentration and perceived skill in viewing. Perhaps, these students did not perceive the more common animated content to merit engagement. Table 38 reports differences between groups for affect items.

Gender. No gender differences were observed for the items irritable, active, excited or alert between or among groups. However, a gender difference was observed in response to the adjective strong. During both viewing conditions (MasterCard and Frosted Flakes) males in both groups reported feeling twice as strong as the females. This finding is most likely related to gender differences combined with the content of the ad. Tony-the-Tiger, the main character, develops strength after eating his Frosted Flakes.

Gender differences were also observed for the affect states free, tense and creative, but not within both conditions. A difference within the control group was observed in response to the term free while watching the Frosted Flakes advertisement. Males felt freer when watching the animated advertisement than females. Typically, feeling free is related to being unrestricted. Therefore, males felt less restricted while viewing. As mentioned earlier, the type of advertisement (animation) combined with the content (i.e., being supercharged) may have contributed to this difference. No other gender differences were observed within the control group.

In the experimental condition, gender differences were observed for two items while viewing the MasterCard advertisement. Males reported feeling almost twice as tense as females, and females reported feeling significantly more creative while watching than males. While this is most likely related to the curriculum and the stimulus material, additional research would need to confirm that certain media content combined with specific media education approaches may appeal more to male students than to female students. The fact that females reported feeling more creative than males suggests that production activities may encourage female students to think differently about content once they develop an interested in how it is (or may be) constructed. Female students in the experimental group were able to apply a new lens to the viewing of the computer animation. In this case, they viewed the computer animated advertisement and felt more creative than the males did.

In sum, students who participated in the curriculum were more involved only while watching the more traditional animated advertisement. These students felt happier and were more skeptical. This is a step in the direction toward understanding what media education approaches may be able to *do* in shaping student thought processes while viewing. It also points to the strong possibility that the *type* of production experiences one has influences the processing of related content.

By providing students the skills required to view more critically, they felt more enjoyment in their viewing and were more actively engaged. Students may have been more engaged while watching the Frosted Flakes advertisement because they had a better understanding of how it was constructed. A female student responded after the post-test, “I kept wondering how they made his [Tony the Tiger] arm move like that….I thought

about how many drawings would be required to do it." Although anecdotal, this unsolicited statement highlights how student thoughts may be shaped through media education production experiences.

Hypothesis 2 (RQ1: H2)

The second hypothesis considered whether or not students who participated in the curriculum reported higher levels of engagement with the advertisement than those students who did not participate in the curriculum. The following items were considered: how well the students was concentrating; whether or not it was more difficult to concentrate; how challenged the student felt while viewing; students' self-perceived skills in viewing; whether or not there was risk involved with the viewing situation; whether or not students felt in control of their actions; and the confidence level of the viewer. Table 39 reports mean differences between and among groups.

Concentration. Results for concentrating while viewing were mixed. Students were asked: 1) how *well* they were concentrating and; 2) how *hard* it was to concentrate. When viewing the MasterCard advertisement, students in the experimental group reported they were concentrating better than the control group, but *it was not any harder* for them to do so. While viewing the Frosted Flakes advertisement, students in the experimental condition reported it was *harder to concentrate while viewing*, but did not report concentrating better.

Students in the experimental (M=1.7) and control (M=1.5) condition reported equal difficulty (M=1.7) concentrating while viewing the MasterCard advertisement. However, students in the experimental group (M=1.5) reported twice as much difficulty compared to the control group (M=.7) while viewing the Frosted Flakes advertisement.

This finding is quite significant. Students who participated in the curriculum reported more challenge and engagement while viewing the animated advertisement. This indicates they were trying harder while viewing. Conversely, we can say the students in the control group were less engaged while watching the animated advertisement. This finding points, again, to the possibility that the *type* of production experience contributes to how content is cognitively processed.

Challenged while viewing. Each of the outcomes for challenge while viewing was statistically different between groups. When students were asked how challenged they were while viewing the Frosted Flakes advertisement, data indicate students in the experimental group (M=2.6) reported more challenge than the control group (M=1.5), $t(84) = 1.65$, $p < .05$. Students in the experimental condition were thinking more and therefore felt more challenged. They were more engaged because they felt more challenged.

While watching the MasterCard advertisement, students in the experimental group (M=2.0) reported concentrating more than the control group (M = 1.3), $t(87) = 1.5$, $p < .07$. Regardless of advertisement type, students in the experimental group tended to feel more challenged. However, the challenge of the viewing situation was much stronger for students in the experimental group while watching the Frosted Flakes advertisement.

In the future, it would be useful to know whether or not perceived challenge would persist for non-animated content. Challenge may have been higher because the act of viewing was more goal-directed for the students who had participated in the curriculum. They had a better set of critical tools to apply to the viewing situation. As a result, it was a more challenging experience. Yet, both advertisements included some

type of animation. It is not possible, based on this study, to know whether or not students who participated would report more challenge while viewing a completely non-animated advertisement. Future research may want to consider testing various types of advertisements after participation in a similar media literacy curriculum to determine if transfer of media literacy thinking skills would occur across different types of production and viewing experiences.

Risk. Students in the experimental condition report less risk involved in the viewing of either advertisement. While viewing the Frosted Flakes advertisement 9% of students in the experimental group and 15% of students in the control reported something was at risk for them. In other words, the risk involved in the viewing situation was lower for the students in the experimental condition.

Desire to think about the advertisement. We are motivated to participate in activities we enjoy. Students in the experimental group were more likely to indicate that they wanted to think about the advertisements they viewed. Fifty-eight percent of students in the experimental group and 44% percent of students in the control group agreed that they wanted to think about the Frosted Flakes advertisement. When asked about the MasterCard advertisement, 65% of students in the experimental group and 56% of students in the control group agreed that they wanted to think about it. Students in the experimental group were more likely to want to think about the advertisement—regardless of advertisement type.

However, both groups wanted to think about the MasterCard advertisement more than the Frosted Flakes. Thinking about animation (i.e., a cartoon) may diminish the entertainment value for this group of teenagers. There are many times when a viewer

does not want to think about what they are viewing. The suspension of belief occurs when we are not thinking about the fact, for example, the scary movie is completely construction and contrived. The MasterCard advertisement was more novel, and therefore, desire to think about it was higher.

Self perceived viewing skill. Interestingly, no difference between the groups was observed on their reported level of skill. Students in both groups rated their skills equally high. This may point to the prejudice with which people perceive advertising in general and animation in particular. Rarely do audiences assume skills are even needed. This finding points to the importance of teaching media literacy skills within the context of communication skill development. In addition to understanding issues related to media agencies, media categories, media technologies, media languages, media audiences and media representation (Buckingham & Sefton-Green, 1997), students need to develop an awareness of how our attitudes and beliefs toward particular media content influence how we process it. According to Bloom's taxonomy (1956), activities which emphasize affect and psychomotor skills would be necessary. Without such understanding, the recognition that viewing skills are even required to process critically remains obscured.

In sum, students in the experimental group were more engaged while viewing either advertisement. However, while viewing the Frosted Flakes advertisement, students in the experimental group reported it was harder to concentrate, they were more confident while viewing and they felt more challenged while they were viewing. Clearly, the curriculum had an effect on students' level of engagement with the advertisements. Many responses which support the criteria considered necessary for a flow experience were

exhibited by the students in the experimental group during the viewing of the animated advertisement.

The data indicate that depending on what is consumed coupled with prior experience creating within a specific medium, concentration levels will vary. Students in the experimental condition reported that they were concentrating well while viewing the Frosted Flakes advertisement and it was significantly harder for them to do. After learning how animation was created by creating their own, it encouraged them to try harder to understand what was occurring. “Flow is often a force for personal growth and learning because to keep experiencing it, one needs to continue to challenge oneself and to do this, one must keep developing greater skills” (Kubey & Csikszentmihalyi, 1990, 142). Students in the experimental condition had developed some skill in viewing this type of advertisement and were more challenged, even though they did not realize they had developed any new skills.

Affective states were minimally influenced by the curriculum. However, taken together, the findings suggest that when students participate in a media education curriculum focused on a particular *type* of media content, in this study animated advertisements, intrinsic motivation to process is more likely. The data also support the finding that students who participated in the curriculum were closer to experiencing a flow state while viewing the animated advertisement. Future research should consider whether or not on-going instruction and skill development within and across media further enhance the viewing/consumption experience. The findings presented in this study strongly suggest it might.

Because of the differences observed between groups during the viewing of the animated advertisement, it is believed that the production experience further enhanced the viewing experience. If students had also been taught how to use computer graphics to create an advertisement, it is plausible that the intrinsic motivation to process would have been higher. The curriculum provided students in the experimental condition with criteria with which they could analyze, judge, and evaluate the animated advertisement. Therefore, the viewing experience was more engaging for them. They had developed some skill and were applying what they knew to their viewing. This is a very important finding.

Media education scholars argue that production activities enhance the learning experience (Bilowit, 1981; Buckingham, 1990; Chaturvedi, 2005; Masterman, 1990). While this is maybe true and this study also supports that finding, another outcome should be considered and studied. Students who participate in a media education curriculum where they create their own media may be able to view more critically and less heuristically (automatically) because they are more mindful of what they are consuming.

Habituating responses occur in relationship to media content with which we are most familiar (Healy, 1990). Perhaps the students in the experimental condition were given a new lens through which to see the animated advertisements. These findings point to the importance of mindful approaches to media consumption. In order to fully engage, i.e., process media content, knowing how something is created may encourage a viewer to think more about it simply because there are more ways available to actually think about it.

Hypothesis 3(RQ1: H3)

Hypothesis three considered whether or not students who participated in the curriculum generated more thoughts while viewing than students who did not participate in the curriculum. Students were asked to view two different advertisements and write down whatever thoughts they had while viewing. For both advertisements (Diet Pepsi & Clearasil) the results were statistically significant at the $p<.00$ level. Students in the experimental condition generated twice as many thoughts about the advertisements than students in the control group. This finding supports the hypothesis that students who participated in the curriculum were thinking more about what they consumed, regardless of the type of advertisement.

The fact that students in the experimental group generated twice as many thoughts as students in the control group is also significant. Again, these students demonstrated more thought while viewing the advertisements than students in the control group. This is an indication that they were more mindful while they were viewing, and they were more engaged with the process. In addition, nuances in the production quality of the advertisements, as well the effect on the self, were more apparent to the students in the experimental condition. This finding is supported by the results of the qualitative data analysis of student cognitive thought listings, to be discussed later.

Hypothesis 4 (RQ1: H4)

Hypothesis four considered whether or not students who participated in the media literacy curriculum would have more positive attitudes about the media (in general) and advertising (specifically). Attitudes toward media were considered an indirect measure of

motivation to process. The attitudes we hold about our media consumption contribute to how we cognitively process it.

Students in the experimental group differed from the control group on many of the items used to measure attitudes toward media. Students in the experimental group reported enjoyment in learning about how and why certain media content is created. Students who participated in the curriculum (M = 3.7) were more likely to strongly agree that they enjoy learning about how and why certain programs, movies and advertisements are created than students in the control group (M = 4.6), $t(86) = -2.68$, $p < .00$. Students in the experimental condition (M = 3.2) more strongly agreed than the students in the control group (M=3.8) that they enjoyed talking about media consumed at home in class, $t(85) = -1.8$, $p < .04$. Students in the experimental group also reported more strongly enjoying learning new ways to think about advertising. For each of the items where students were able to indicate the degree to which they enjoyed *creating or talking* about media content in class, agreement was much stronger for students who participated in the curriculum. This is a good indication that the curriculum was positively received by the students. These findings also suggest that when students participate in a media education curriculum they are more excited (and perhaps willing) to talk about their home media consumption in class. It also indicates that students really enjoy learning how to create media content.

Most importantly, students who participated in the curriculum (M = 4.2) were more likely to agree than the control group (M = 5.3) that when they watch television advertising, they think about how and why the ad was created, $t(87) = -2.9$, $p < .00$. This finding confirms other findings in this study which indicate students who participated in

the curriculum were thinking more about advertising. Thinking about advertising content is the first step toward mindful consumption of it.

Students in the experimental condition tended to report enjoyment in creating, thinking about, and talking about media in class. The data trended toward active engagement and awareness rather than cerebral reflection about media content and use. On measures where no differences were observed between groups, the items reflected a more manipulative attitude regarding media content and consumption. No differences were observed on measures such as thinking about problems concerning the media, media use (it would be hard to go a week without watching television), the idea that people who create media are influenced a great deal by the need to make money, and the desire to own things advertised on television and in magazines. Students in both groups held more stereotypical perceptions regarding media consumption (it would be hard to go a week without television) and desire to own things advertised on television. The curriculum had little impact on students in the experimental condition in regard to these attitudes. In the future, it would be important to stress the economics of media production, as well as the effectiveness of advertising in shaping opinions and attitudes toward what we want to own or feel we need to buy.

However, the items where differences were observed suggest students can and do find enjoyment in creating media as well as talking about it in class. Findings also suggest students who participated in the curriculum were much more aware of the amount of time and energy required to create advertisements which capture attention. Two items reflect this finding. Students in the experimental condition were much more likely to agree that people who create media think a great deal how to get people

interested in watching, reading, or listening. They also agreed more strongly that it is difficult to create and make commercials. Students who participated in the curriculum were much more aware of the challenges and work required to create an advertisement.

Hypothesis 5 (RQ1: H5)

Hypothesis five considered whether or not students who participated in a media education curriculum reported a higher desire to think and hold opinions about the media they consumed than students who did not participate. Little difference was observed on items concerning desire to think about or hold opinions about media or media content. As scholars have argued, desire to think and hold opinions may be factors of personality (Petty & Caccioppo, 1986; Petty, et. al. 1983). In this study, age may have played an important role. Students were neutral in terms of whether or not they had more opinions about media than others they knew, thinking about why they liked or disliked certain media messages and not preferring to think about the information seen on the internet and television. These findings were not surprising given the daily concerns of most 8th grade students.

It the future, questions specifically targeted to the content covered in the curriculum might have provided more insightful findings. For example, questions should have specifically been asked about advertising use, not the media. While the curriculum did discuss the media in general, almost all of the instruction addressed advertising. Some of the statements asked in this study may have been too broad considering what was covered in the curriculum.

RQ2: Do students who participate in a media education curriculum exhibit more cognitive complexity while processing than student who did not participate?

Research question 2 asked whether or not students who participated in a media education curriculum exhibited more cognitive complexity while viewing than students who did not participate. Three hypotheses were proposed. The first considered whether or not students who participated in a media education curriculum would exhibit more knowledge about the media than students who did not participate in the media education curriculum. The second proposed that students who participated in a media education curriculum would have more varied types of thought than students who did not participate in the media education curriculum. The last hypothesis proposed that students who participated in a media education curriculum would be more mindful of their viewing (the content) than students who did not participate in a media education curriculum.

Hypothesis 1 (RQ2: H1)

At minimum, students who participated in the curriculum should be more knowledgeable about advertising. In this study, students were more knowledgeable about different types of advertising techniques and were better at identifying techniques used in print advertisements. According to Bloom (1965) the lowest level of learning is rote memorization of terms and definitions. Higher cognitive functioning involves being able to apply knowledge to specific contexts. Students in the experimental condition were thinking more critically about advertising because they better understood the language of advertising, thus they were able to apply their knowledge.

Vocabulary matching. Students who participated in the curriculum were better able to match advertising terms to their definitions (i.e., media, persuasion, target audience, image advertising, and bandwagon, slice of life, testimonial, weasel, point of

view and public service announcement), and out performed students in the control group on every item. Considerable differences were observed for the terms bandwagon technique and public service announcement. Students in the experimental group were three times more likely than the control group to identify the correct definition. Basic vocabulary terms indicate a core knowledge base. Students in the experimental condition were much more knowledgeable than students in the control group. This finding indicates the curriculum was effective at teaching students basic vocabulary.

Print advertisements. In addition to vocabulary matching, students were asked to apply what they knew to print advertisements. Application of knowledge is a higher order thinking skill than rote memorization. Students were asked to identify which type of persuasion technique was used in five different advertisements. Students in the experimental condition out performed students in the control condition on each of the five items.

Students in the experimental condition were better able to identify key vocabulary terms and apply their knowledge to print advertisements. The learning objectives of the curriculum included core knowledge of persuasive vocabulary and techniques. Students in the experimental condition were more aware of persuasive communication techniques as well as the elements used within the advertisement to persuade.

Hypothesis 2 (RQ2: H2)

The second hypothesis was concerned with the quality of thoughts generated after viewing two different types of television advertisements. Analysis of thought listings indicated that students who had participated in the curriculum were more engaged and more mindful. Not only did the students in the experimental group exhibit twice as many

thoughts, the also exhibited a larger variety of thought. This was observed in their more frequent use of self-reference, identification of production elements (i.e., use of color), and identification of affect (either self or of the actors).

As mentioned earlier, thought-listings were coded by the researcher using AtlasTi software. One limitation of this aspect of the study is that it lacked inter-coder reliability. Due to time and financial constraints, it was not possible to train additional coders. In the future, it would be extremely useful to code the data using the themes which emerged in this study with two or more researchers.

However, the qualitative data presented here support other findings in the study. In an attempt to triangulate data, the results of the thought listing are useful. The qualitative data confirm students were thinking more about the advertisements they were consuming. The curriculum provided students with new ways and skills to use in the processing of advertisements. Students were able to apply a new lens to what they were viewing. Thus, the viewing was less heuristic (automatic), more challenging, and more interesting (desire to view).

Hypothesis 3 (RQ2: H3)

The third hypothesis proposed students who participated in a media education curriculum would be more mindful of their viewing than students who did not participate in a media education curriculum. Students' thoughts were categorized and analyzed using criteria developed by the researcher following a grounded theory approach (Glaser & Strauss, 2006). Two different advertisements (Diet Pepsi and Clearasil) were shown to the students. After viewing each advertisement, students were asked to write down as many and whatever thoughts they had about it. More thoughts did not always indicate

mindfulness. In some cases, a student would list many similar thoughts---regurgitating what was just viewed – this grouping of thoughts, although plentiful, was considered mindless. Thoughts were coded using the following categories: self-reference, affect, production elements, production/use of color, source discounting (product or ad), reference to product, and actors. These categories emerged from the data.

In order for a grouping of thoughts to be considered mindful, the list of thoughts had to include at least three different *types* of thought; at least one of the thoughts in the grouping had to evaluate (favorable of unfavorable) the advertisement or the product. Measuring mindfulness in this way, it was possible to quantify the variety (quality) of thought after exposure to the advertisement.

Students in the experimental condition exhibited more mindful responses. The results suggest that students who participated in the curriculum varied their thinking more while viewing. Thus, they elaborated more and were also more likely to evaluate either the advertisement or the product. Students in the experimental condition were also more likely to self-reference. Their responses reflect an active engagement with the text (see Table 29). This finding indicates students were more self-reflective. Mindfulness necessitates a present moment awareness of oneself. Media mindfulness requires an additional awareness of the medium and its content.

Mindfulness is best conceptualized on a scale. On the low end of the scale mindlessness (habituating responses/non-evaluative/low affect); on the high end of the scale mindfulness (multiple types of thought/high affect/evaluative). Once a viewer is more mindful, theoretically it should be possible for him/her to achieve flow. However, in order to achieve higher levels of media mindfulness, consumers (in this study the

viewer) would need to possess the critical thinking skills required to view from multiple points of view (i.e., production qualities, self-referencing, and identification of affect). This would provide the viewer with a more structured viewing experience where challenge and skill would be required to experience a mindful state. Once achieved, a flow state would further require that the viewer actually enjoyed the experience. Just as not everyone experiences a flow state for each type of activity where it is possible, not all viewers would experience flow while consuming.

In the future, it would be beneficial to quantify each of the types of thought and rank order students on a scale from mindless to mindful. Students at the further end of the mindfulness scale should then be compared to those students who exhibit more flow characteristics. The results from this study suggest that students who are more mindful also exhibit more flow. Flow is considered an optimal state for a human being –the person has high skill and feels challenged while engaged in an activity which is enjoyable for its own sake. The nuances required for flow and mindfulness need to be researched further. However, this study points to the possibility of more mindful viewing experiences where skill, challenge, and enjoyment are possible while viewing.

RQ3: Do media literacy production activities have an effect on student cognition and attitudes?

The last research question asked whether or not production activities had an effect on student cognition and attitudes. Three hypotheses were considered. The first proposed that students who participated in a media education curriculum would have more negative opinions toward tobacco use. The second proposed that students would be more

enthusiastic about school and working collaboratively. The last hypothesis proposed that students would have different attitudes toward advertising and media use.

Hypothesis 1 (RQ3: H1)

Students who participated in the curriculum did not have more negative opinions toward tobacco use. This was surprising given that the students spent approximately two weeks planning and creating their animated anti-smoking public service announcements. However, there are two factors which may have contributed. During the week prior to the post-test, students through out the school participated in an anti-smoking campaign arranged by school administration. The researcher was not aware of the campaign prior to seeing posters created by students displayed throughout the school. The second reason why no difference was observed may have been due to the fact that very little instruction regarding tobacco use was part of the curriculum. Although students were asked to create animated public service announcements regarding tobacco use, little additional instruction was provided about its negative effects.

Although the first hypothesis was not supported, an unanticipated finding emerged. Curriculum activities must be contextualized with additional information. Production activities must be reinforced with specific learning objectives. Students did acquire knowledge about advertising, but not about tobacco use. The act of production is not enough for media literacy to occur. Production activities should be contextualized. It is naïve to think that the act of producing media specific media content could also create positive or negative attitudes toward the content. Future research should consider how production activities, without information regarding the content of the production, influence media literacy skills, media mindfulness, and ability to process the content.

Hypothesis 2 (RQ1: H2)

The second hypothesis proposed that students who participated in a media literacy curriculum would be more enthusiastic about school and working collaboratively. The hypothesis was supported. Students in the experimental condition (M = 2.7) were more likely than the control group (M =4.2) to agree that they liked language arts class, $t(86) = -4.58$, $p < .00$. Students in the experimental group (M = 1.6) were also more likely to agree than the control group (M =2.6) that working in a team is more interesting and exciting than working alone, $t(86) = -3.6$, $p < .00$. While students agree they enjoyed language arts class more, this feeling did not apply to liking school more. No differences were observed on this item. However, this is not surprising. Although students enjoyed language arts class more, the feeling did not carry over to liking school more.

Research by Shernoff, Csikszentmihalyi, Schnieder and Shernoff (2003) suggests students are more likely to experience flow (higher concentration, interest, and enjoyment) during the school day when involved with group work. They also found "participants experienced increased engagement when the perceived challenge of the task and their own skills were high and in balance, the instruction was relevant, and the learning environment was under their control" (p. 158). Perhaps students who participated in the media literacy curriculum enjoyed language arts class more because they were able to work collaboratively.

Additional research should be done to determine if students who are involved with a media literacy curriculum --where production activities involving group work are used -- promote deeper engagement with the content (i.e., students experience flow). These data suggest it might. Such findings would provide much needed support for media literacy curriculum. If media literacy curricular approaches engage students' more than

traditional curriculum approaches (i.e., lecture and videos), it would be imprudent not to use such pedagogical approaches on a regular basis.

Hypothesis 3 (RQ1: H3)

The last hypothesis proposed that students who participate in a media education curriculum will have different attitudes toward advertising and media use. Students in the experimental group were more likely to agree than students in the experimental group that: 1) people who create media think a lot about how to get people interested; 2) people are likely to understand media messages differently; 3) products (such as cigarettes) are used by actors in movies to sell products; and 4) advertising shows what type of people like and use certain products (see Table 13 for results). Differences were statistically significant at the .05 level for each of previous items. All statements relate to core concepts of media literacy.

Students who participated in the media literacy curriculum had a better understanding that media messages are constructed (creators think a lot about how to get people interested), interpretations of media content vary from person to person (people understand media messages differently), product placement occurs in movies to sell products (economics of media content), and advertising contains visual cues which relate to the target audience (advertising shows what type of people like and use certain products). These findings suggest that students who participated in the curriculum developed more realistic attitudes toward advertising. The attitudes viewers hold about content (advertising) greatly influences how they cognitively process it.

The curriculum was based on the core concepts of media literacy. Students who participated in the program were thinking differently about media creation, intention, and use. Students who participated in the curriculum were more media literate in terms of

their attitudes toward the media and the production process. Students who participated in the curriculum (M =6.4) had more realistic attitudes about the media production process disagreeing more strongly than the control group (M = 5.3) that creating and making commercial is easy, $t(87) = 3.7$, $p < .00$. Taken together, students who participated in the curriculum held media literate attitudes. Students who did not participate in the curriculum held less informed attitudes regarding the intention, creation, and interpretation of media.

Limitations

Like any field experiment with a quasi-experimental design, there are limitations to this study. First, random assignment was not possible. Students who participated in the study (control and experimental participants) were assigned to specific teachers by the school district. In addition, the teacher with whom the researcher worked was assigned by the school administration to work with her. Early in the application process with the school district, the experimental group teacher was quite unhappy about the fact she was asked to participate in this study because she would not receive any compensation for her time. Eventually, she began to enjoy the experience—only to apologize. However, the incident highlights the importance of the teacher's attitude toward the content. The teacher must be willing and able to teach media literacy skills. Unfortunately, not many teachers can facilitate both the critical thinking skills development required for media literacy and the requisite production experiences.

Second, this study was an atypical educational situation. It would be difficult, although not impossible, to replicate the findings of the study because of the situation in which it occurred. The process to get into the school district was time consuming, the development of the curriculum as well as the skills required to teach the production even

more so. Third, the curriculum was novel to the students. Students who participated were excited to be part of something different. The instruction was not typical for language arts class. Therefore, students who participated were more engaged simply because the curriculum, while related to what was required by the school district, was different than what is typically taught.

Fourth, the researcher was responsible for the development and the facilitation of the curriculum as well as the post-testing. There is no denying the strong possibility that the teacher / researcher had an effect on the students --- completely separate from the content of the curriculum. The enthusiasm with which any type of educational content is taught ultimately influences how engaged students will become.

Fifth, the participants in this study reside in a town which was rated by *Money Magazine* as one of the top 15 places to live in the country. This cannot be overlooked. Students from this community are extremely privileged. It was not unusual to see female students in possession of handbags costing hundreds of dollars. Their attitudes toward the media and advertising, specifically, may be different from the general population. Conspicuous consumption is a way of life in this community. In some respects, the curriculum may have been more effective because of the socioeconomic status of the students.

Sixth, as mentioned earlier, the qualitative data was analyzed by one coder –the researcher. Although the researcher did not know which group the thoughts-listings were from, the findings would have been stronger given the ability to run inter-coder reliability tests. Time and financial constraints prohibited the possibility of more than one coder.

Finally, contamination of the data must be addressed. Students from the control and experimental group attended the same school. Two local newspaper articles were printed about the curriculum and the researcher. While students may not have read the article, their parents and other teachers in the school may have. The news coverage most likely initiated the anti-tobacco program in the school which occurred the week prior to the post-test. In addition, students talk to each other and other teachers. Many times over the course of the curriculum implementation, other teachers questioned the researcher and the experimental group classroom teacher about the program. Students were talking about it in other classes. This could not be prevented during the course of the study.

The limitations mentioned here are familiar to those who do educational research. The limitations presented here are some of the reasons why research such as this is so difficult to implement. Limitations such as these shed light on why so few large scale studies have been done in the media literacy community. However, if media literacy is ever going to gain a real curricular foothold, such studies need to continue. Although time consuming and challenging to implement studies of this scope and length, the findings presented in this study are extremely encouraging.

General Conclusions

The media literacy curriculum approach suggested in this study offers a model based on audience engagement. More often than not, the media education community promotes an anti-advertising ideology. This approach, while warranted, may prevent a more active involvement while consuming advertisements. When audiences develop a contempt or distain for any type of media content, they are less motivated to consciously think about it. Most media consumers are aware of the fact that advertisements are intended to sell products or services. Production and persuasion techniques are used to

influence audiences to purchase products or services which maybe unhealthy. Products which promote fast food are just one example. In most cases, advertisers do not want consumers to think critically about the product or service being sold. When the media education community promotes an anti-advertising ideology, it may further discourage more mindful engagement with advertisements.

In order to encourage a more mindful consumption of advertisements, this study suggests a model which appreciates the advertisement as a form of narrative. While this curriculum in no way intends to depoliticize advertisements, it does suggest a more positive consumption approach may be useful in *motivating* audiences to mindfully view. Providing students the skills and the ability to read media texts from a variety of perspectives opens them up for more mindful engagement. However, ability to critically view is not enough. The audience must be motivated to view. When advertising is perceived as a form of manipulation audiences are much less motivated to engage with it in any meaningful way.

Audiences should understand the difference between preferred and oppositional readings of advertisements. In fact, the core principles of media literacy suggest not every media consumer will have the same interpretation. However, if the viewer is not taught to understand, evaluate and analyze advertisements (or any media content) from more than one perspective (the preferred reading), interpretations are more limited. Unfortunately, negative stereotypes are used to sell products and services. A media literate individual should be able to both recognize the stereotype and be able to see the creative elements of the advertisement. In other words, a critical consumer of advertising is able to understand, evaluate, and analyze both sides – the producer and the consumer. More

often than not, media literacy educators focus on the more critical interpretation while ignoring positive elements in the advertisement. The viewing experience, if it is to be mindful, should be somewhat enjoyable too.

Many students know how to technically create different types of new media. Blogs, web pages, and the remixing of media are becoming more common place. Yet, the more traditional media are not being used in the classroom to facilitate learning. Teachers under utilize these technologies in the classroom to enhance the learning environment, and promote more mindful engagement. Students need to learn how to think critically about media content within specific contexts. In order to do this, they must develop the thinking and production skills required to be proficient.

Some scholars may argue studying television is passé. They believe older media are not as dynamic and interesting as the new media. This is an unfair assessment of older media because it ignores how the older media continue to evolve. High definition broadcasts completely change the viewing experience. It is now possible to view programs and advertisements with better clarity and detail than possible in real life. When watching advertisements in high definition it becomes much easier to identify the constructed nature of the product. For example, it is possible to see that the food used in the advertisement has been painted or enhanced so that it looks better. It is also possible to more clearly see actors and actresses. Now, a viewer can see the fine lines and wrinkles, freckles, and skin blemishes once hidden by the camera. The constructed nature of television is now much easier to identify - if you know what to look for while viewing.

In addition to high definition broadcasts, viewers are able to pause, rewind, and replay what they view on demand. Audiences can be much more actively involved in the

viewing experience. Digital IO service provides the viewer with a remote that controls the live broadcast. If I choose to rewind an advertisement in the middle of a program I am watching because I enjoy analyzing and evaluating the advertisement, I can. Ten years ago, this was not possible. Viewers are much more in control of the viewing situation than ever before. This changes how we engage with the medium, and it will continue to influence how we process it. It is more important now than ever before to encourage mindful media consumption.

While new media such as blogs, viral marketing and social networking are changing the way consumers interact with advertising, older media like television provide important clues as to why newer media are more effective. There is no denying that it is quite difficult to think about each and every television advertisement one views. Logistically, a new advertisement can be seen every 30 seconds during commercial breaks. It is difficult to process deeply as the mind is required to jump from one stimulus to another. It is also mentally exhausting for the viewer. New media allow longer contact with a particular product or brand in an isolated condition. Now, it is possible to stop the broadcast and view the advertisement as many times as I wish. Or, I can view it on-line (www.youtube.com). If I desire, I can even send it to my friends as a web-link for them to view too.

The findings suggest that more specifically targeted production activities coupled with core media literacy skills could enhance cognitive processing and engagement with media content. Teaching students how to produce television advertisements, broadcast news programs, websites and the like should be done within the context of media literacy

instruction. Learning the technical aspects of production devoid of other media literacy knowledge limits deeper cognitive functioning.

In order to fully educate today's students, we must recognize there is little distinction between entertainment and education---as Marshall McLuhan noted. Learning can and should be relevant and fun. In order to remain relevant in the lives of our students, we must teach with the tools available to us. The channels of communication have evolved and will continue to evolve. Our educational methods remain inadequate if we are not teaching students how to navigate within a technological society. We need to provide students with the critical thinking skills required for mindful media consumption. If our students spend 6 ½ hours a day in contact with some form of media, why not make it a fun and educational experience--an optimal experience, where students are able to develop socially, psychologically, and emotionally?

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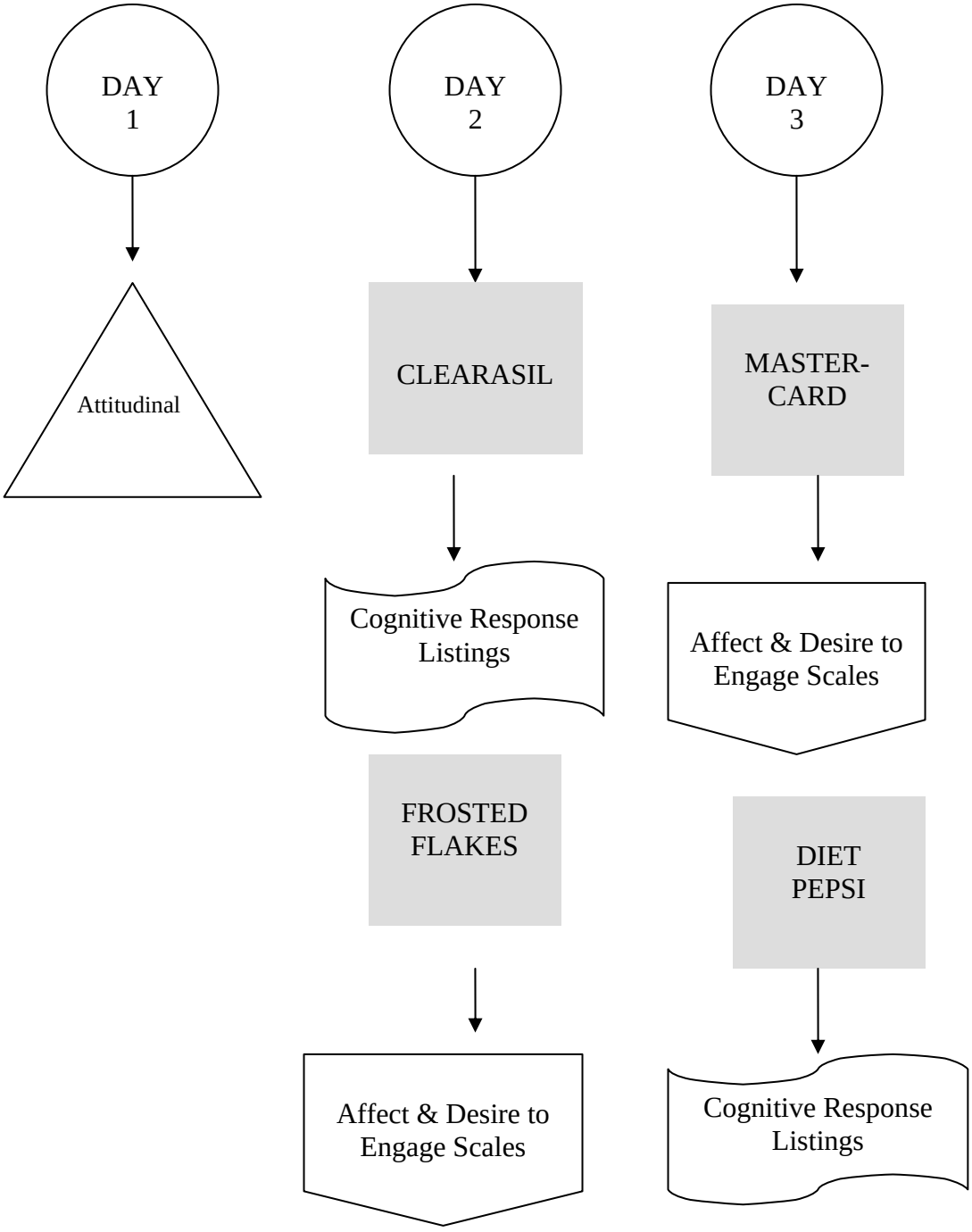
Figure 1.0 Post-test design



TABLES

Table 1. Research Questions and Hypotheses

RQ1: Are students who participate in a media education curriculum more *intrinsically motivated to process advertisements* than students who do not participate?		
H1 Students who participate in media education curriculum will indicate more involvement with advertisements while viewing than students who do not participate.	Affect while viewing	• How were you feeling while you watched scale
H2 Students who participate in a media education curriculum will report higher levels of engagement with the advertisement than students who do not participate.	Desire to engage with message	• Concentration • Difficulty concentrating • Challenged. • Low/high skills • Wish to be doing something else. • Risk Involved • Control of actions • Confidence
H3 Students who participate in a media education curriculum will generate more thoughts while viewing than students who do not participate	Involvement with message	• Quantity of Thought listings
H4 Students who participate in a media education curriculum will report more positive attitudes toward the media (in general) and advertisements (specifically)	Attitudes	• Attitudinal Likert-Scale Items
H5 Students who participate in a media education curriculum will report a higher desire to think and hold opinions about the media they consume than students who do not participate.	Attitudes	• Revised Need for Cognition Scale • Revised Need to Evaluate Scale Attitudinal Scales

RQ2: Do students who participate in a media education invention exhibit more cognitive complexity while processing than student who did not participate? H1: Students who participate in a media education curriculum will exhibit more knowledge about the media. H2: Students who participate in a media education curriculum will think more (types of thought) about advertising while viewing than students who do not participate in a media education curriculum. H3: Students who participate in a media education curriculum will be more mindful of their viewing than students who do not participate in a media education curriculum.	Application of media literacy vocabulary and skills Analysis of thought-listings Analysis of thought listings	• Revised Need for Cognition Scale • Revised Need to Evaluate Scale Attitudinal Scales Cognitive thought listings Cognitive thought listings

RQ3: Do media literacy production activities have an effect on student cognition and attitudes? H1: Students who participate in a media education curriculum will have more negative opinions toward tobacco use than students who do not participate in a media education curriculum. H2: Students who participate in a media education curriculum will be more enthusiastic about school and working collaboratively than students who do not participate in a media education curriculum. H3: Students who participate in a media education curriculum will have different attitudes toward advertising and media use	Attitudes toward cigarettes Attitudes Attitudes	Semantic Differential Scale Behavioral intention to smoke Attitudinal Statements Attitudinal Statements

Table 2. Measures of Affect for Frosted Flakes

How were you feeling while you watched the (Animated Frosted Flakes) advertisement?

	Experimental	Control	t test (1 tailed)
Alert2	M=4.7, SD = 1.71	M = 4.8, SD = 1.5	t(86)= -.33, p = .37
Happy2	M = 5.6, SD =1.4	M = 5.1 SD = 1.4	t(86)= 1.4, p = .08
Tense2	M = 2.4, SD = 1.4	M= 2.4, SD = 1.3	t(86) = -.13, p = .45
Suspicious2	M = 2.6, SD = 1.5	M = 2.0, SD = 1.4	t(86) = .37, p = .03*
Irritable2	M = 2.4, SD = 1.3	M = 2.3, SD = 1.4	t(86) = .37, p = .35
Strong2	M = 4.5, SD = 1.7	M = 4.4, SD = 1.9	t(85) = .09, p = .45
Active2	M = 5.2, SD = 1.7	M = 5.2, SD = 1.6	t(85) = .16, p = .45
Creative2	M = 5.2, SD 1.6	M = 5.1, SD = 1.9	t(86) = .3, p = .35
Free2	M = 4.7, SD = 1.4	M = 4.7, SD = 1.4	t(86) = .02, p = .49
Excited2	M = 5.1, SD = 1.5	M = 4.9, SD = 1.7	t(86) = .54, p = .29

* p<.05. **p<.01, ***p< .001

Table 3. Measures of Affect for MasterCard

How were you feeling while you watched the (MasterCard) advertisement?

	Experimental	Control	t test (1 tailed)
Alert3	M= 4.6, SD=1.8	M=4.6, SD=1.53	t(87)= .01, p = .49
Happy3	M=5.7, SD=1.4	M=5.7, SD=1.3	t (87)=-.17, p = .43
Tense3	M=1.7, SD=1.0	M=1.95, SD = 1.15	t(87) = -1.1, p = .14
Suspicious3	M=2.0, SD=1.4	M=2.6, SD=1.54	t(87) = .7, p = .25
Irritable3	M=2.7, SD = 1.4	M = 2.47, SD = 1.5	t(87) = .9, p = .19
Strong3	M = 4.1, SD = 1.7	M = 4.1, SD = 1.6	t(87) = -.08, p =.45
Active3	M = 4.4, SD = 1.7	M = 4.8, SD = 1.7	t(87) = -1.3, p = .1
Creative3	M = 5.9, SD = 1.5	M = 5.6, SD = 1.5	t(87) = .9, p = .2
Free3	M=4.8, SD = 1.5	M = 5.0, SD = 1.5	t(87) = -.5, p = .3
Excited3	M=5.1, SD = 1.6	M = 5.1, SD = 1.8	t(87) = -.02, p = .45

* p<.05. **p<.01, ***p< .001

Table 4. Attitudinal measures of involvement, desire to think about media, and learning about media.

Scale (1-7) *1-Strongly Agree;* *4 Neutral;* *7 Strongly Disagree*	**Experimental**	**Control**	**t test** **(1 tailed)**
I form opinions about most things I see, hear, and read in the media (TV, magazines, internet, radio, film, videogames etc.).	M = 2.9, SD = 1.3	M = 2.9, SD = 1.2	t(87) = -.14, p = .45
I think about why I like or dislike certain media messages.	M = 4.0, SD = 1.7	M = 3.7, SD = 1.5	t(87) = .82, p = .20
I have more opinions about things I see in the media than other people I know.	M = 4.1, SD = 1.4	M = 4.0, SD = 1.15	t(87) = .06, p = .47
I prefer not to think much about information I see on the internet or on television.	M = 3.9, SD = 1.5	M = 4.1, SD = 1.4	t(87) = -.30, p = .38
Usually, I only form opinions about things I see and hear in the media when I am asked.	M = 3.6, SD = 1.6	M = 3.7, SD = 1.5	t(86) = -.09, p = .47
I really enjoy creating media (animation, websites, advertisements, music, etc.).	M=2.8, SD=1.55	M=3.6, SD=1.81	t (87)= -2.5,p<.02*
I enjoy talking about different media I watch, see, hear or read with friends, and/or family.	M = 3.6, SD = 1.7	M = 3.2, SD = 1.5	t(87) = 1.1, p = .15
I don't usually think about problems concerning the media.	M = 3.4, SD = 1.4	M = 3.1, SD = 1.3	t(86) = 1.0, p = .19
Learning new ways to think about advertising doesn't excite me very much.	M=3.85, SD=1.63	M=2.97, SD=1.3	t (87)= 2.77,p<.00***
I enjoy learning about how and why certain programs, movies, advertisements, etc. were created.	M=3.65, SD=1.59	M=4.6, SD=1.7	t (86)= -2.68,p<.00***
I like being able to talk about media (television shows, movies, advertising, etc.) I enjoy at home in class.	M=3.2, SD=1.5	M=3.8, SD=1.6	t (85)= -1.8,p<.04*

* p<.05. **p<.01, ***p< .001

Table 5. Measures of Concentration and Involvement with Message

	Experimental	Control	t test (1 tailed)
How well were you concentrating? Frosted Flakes	M = 6.1, SD = 2.1	M = 6.0, SD = 2.3	t(84) = .19, p = .43
How well were you concentrating? MasterCard	M=7.15, SD=1.85	M=5.9, SD=2.58	t(87)2.6=, p<.00***
Was it hard to concentrate? Frosted Flakes	M=1.5, SD=1.8	M=.7, SD=1.12	t(84)=2.5, p <.00***
Was it hard to concentrate? MasterCard	M=1.7, SD=2.33	M=1.05, SD=1.8	t (87)=1.4,p <.09
Were you in control of your actions? Frosted Flakes	M = 6.8, SD = 2.5	M = 7.2, SD = 2.4	t(84) = -.75, p = .23
Were you in control of your actions? MasterCard	M = 7.7, SD = 1.8	M = 7.1, SD = 2.2	t(87) = 1.2, p = .11
How confident were you? Frosted Flakes	M=5.4, SD=2.23	M=4.5, SD=2.08	t(84)=1.9, p<.03*
How confident were you? MasterCard	M=6.0, SD=2.00	M=4.6, SD=2.33	t (87)= 3.0,p<.00***

*p<.05. **p<.01, ***p< .001

Table 6. Measures of Concentration and Reported Skill Level

	Experimental	Control	t test (1 tailed)
How challenged were you while viewing? Frosted Flakes	M=2.3, SD=2.15	M=1.5, SD=1.9	t(84)=1.65,p<.05*
How challenged were you while viewing? MasterCard	M=2.02, SD=2.11	M=1.3, SD=2.04	t (87)= 1.5,p<.07
How low or high were your skills in viewing? Frosted Flakes	M = 6.0, SD = 2.4	M = 6.2, SD = 2.5	t(84) = -.5, p = .32
How low or high were your skills in viewing? MasterCard	M = 7.0, SD = 1.7	M = 6.5, SD = 2.4	t(87) = 1.0, p = .155
Your wish to be doing something other than viewing? Frosted Flakes	M = 4.7, SD = 2.4	M = 4.7, SD = 2.8	t(84) = -.12, p = .46
Your wish to be doing something other than viewing? MasterCard	M = 3.6, SD = 2.8	M = 4.4, SD = 3.1	t(87) = -1.4, p = .09

p<.05. **p<.01, ***p< .001

Table 7. Measures of Risk and Thinking About the Advertisement

	Experimental	**Control**
Was anything at risk for you in viewing? (yes/no) Frosted Flakes	No – 91% Yes – 9%	No- 85% Yes – 15%
Did you want to think about the advertisement? (yes/ no) Frosted Flakes	No – 42% Yes -58%	No – 46% Yes – 54%
Was anything at risk for you in viewing? (yes/no) MasterCard	No – 98% Yes – 2%	No – 98% Yes – 2%
Did you want to think about the advertisement? (yes/ no) MasterCard	No - 35% Yes – 65%	No – 44 % Yes – 56%

Table 8. Measures of Persuasion Vocabulary Knowledge

Vocabulary Term	Experimental % Correct	Control % Correct	Experimental N/#correct	Control N/#correct
Media	*98*	*78*	46/45	45/31
Persuasion	*96*	*71*	46/44	45/32
Target Audience	*100*	*71*	46/46	45/32
Image Advertising	*76*	*33*	46/35	45/15
Bandwagon	*100*	*33*	46/46	45/15
Slice of Life	*96*	*58*	45/43	45/26
Testimonial	*94*	*15*	46/43	45/7
Weasel	*80*	*11*	46/37	45/5
Point of view	*100*	*87*	46/46	45/39
Public Service Announcement	*98*	*31*	46/45	45/14

Table 9. Measures of Media Literacy Skill for Print Advertisements

	Experimental % Correct	Experimental # Correct	Control % Correct	Control # Correct
Which one is the Public Service Announcement?	100	46/46	98	43/44
Who is the target audience for Figure A?	80	37/46	30	13/44
What type of persuasion is used in Figure C?	65	30/46	65	29/44
What type of persuasion is used in Figure D?	96	44/46	57	25/44
What type of persuasion is used in Figure E?	100	46/46	100	46/46

Table 10. Measures of Student Attitudes Toward Tobacco Use

	Experimental	Control	t-test (1 tailed)
Good / Bad	M = 6.8, SD = .75	M = 6.9, SD = .36	t(89) = -.86, p = .2
Resistible /Irresistible	M = 2.8, SD = 2.4	M = 3.0, SD = 2.3	t(89) = -.26, p = .40
Cool/ Uncool	M = 6.8, SD = .96	M = 6.8, SD = .54	t(88) = 1.41, p = .34
Boring / Interesting	M = 1.7, SD = 1.5	M = 1.6, SD = 1.0	t(89) = .44, p = .34
Dirty / Clean	M = 1.0, SD = .21	M = 1.1, SD = .38	t(89) = 1.05, p = .15
Stylish / Unstylish	M=6.3,SD=1.6	M=6.7,SD=.75	t(89)=-1.46, p = .08
Relaxing / Non-relaxing	M = 5.5, SD = 2.1	M = 5.3, SD = 2.2	t(89) = .47, p = .32
Distasteful /Tasteful	M = 1.7, SD = 1.5	M = 1.8, SD = 1.6	t(89) = -.32, p = .38
Smooth / Rough	M = 5.7, SD = 1.7	M = 6.1, SD = 1.3	t(89) = -1.2, p = .12
Sweet / Sour	M = 6.2, SD =1.4	M = 5.8, SD = 1.4	t(89) = 1.1, p = .14
Nice / Awful	M = 6.9, SD = .44	M = 6.8, SD = .61	t(89) = 1.0, p = .16
I believe smoking is bad.	M = 4.6, SD = 1.2	M = 4.6, SD = 1.0	t(88) = -.21, p =.42
I believe smoking occasionally at parties is OK.	M = 1.4, SD = .7	M = 1.5, SD = .98	t(88) = -.45, p = .33
I believe staying away from smoking is good.	M = 4.9, SD = 3.4	M = 4.8, SD = .54	t(88) = .54, p = .30

Table 11. Measures of Student Attitudes Toward School and Working Collaboratively

	Experimental	Control	t test (1 tailed)
Working on a project alone is more important than working in a team.	M=5.7, SD=1.49	M=4.9, SD=1.55	t(87)=2.5,p <.005**
Working in a team is more interesting and exciting than working alone.	M=1.57, SD=.97	M=2.6, SD=1.6	t(86)=-3.61,p<.00***
I enjoy school.	M = 3.9, SD = 1.7	M = 3.7, SD = 1.6	t(87)= .8, p = .21
I like language arts class.	M=2.7, SD=1.3	M=4.19, SD=1.7	t(86)=-4.58,p <.00***
I like social studies class.	M=2.7, SD=1.5	M=3.95, SD=1.8	t(87)=-3.33,p <.00***

* p<.05. **p<.01, ***p< .001

Table 12. Measures of Student Skepticism and Awareness of Media Messages

	Experimental	Control	t test (1 tailed)
People who create media think a lot about how to get people interested in watching, reading or listening.	M = 1.3, SD = .65	M = 1.7, SD = 1.33	t(87) = -.209, p < .02*
People who create media are influenced a lot by the need to make money.	M = 2.2, SD = 1.4	M = 2.1, SD = -1.5	t(87) = .34, p = .37
It would be hard for me to go a week without watching TV.	M = 2.9, SD = 2.02	M = 3.4, SD = 2.14	t(86) = -1.0, p = .16
I wish I owned a lot of the things that I see advertised on television and in magazines.	M = 3.24, SD = 1.3	M = 3.35, SD = 1.7	t(87) = .34, p = .35
Advertising doesn't influence my decision about what to buy.	M = 3.9, SD = 1.14	M = 3.9, SD = 1.5	t(83) = .03, p = .49
People are likely to understand the same media messages (movies, television shows, etc.) differently.	M=2.3,SD=1.17	M=2.8,SD=1.49	t(87) = -1.88,p =.03*
I trust television advertising.	M = 5.4, SD = 1.1	M = 5.5, SD 1.1	t(87) = -.48, p = .32
When I watch television advertising, I think about how and why the ad was created.	M=4.2,SD=1.86	M=5.3,SD=1.55	t(87)-2.9,p < .00***

* p<.05. **p<.01, ***p< .001

	Experimental	Control	t test (1 tailed)
Each type of media (television, magazines, radio, etc.) has different strengths and weaknesses.	M = 2.0, SD = .93	M = 2.2, SD = .93	t(87) = -1.3, p = .10
TV and magazine advertising helps me learn about what is in style.	M = 3.3, SD = 1.3	M = 3.4, SD = 1.5	t(87) = -.46, p = .33
Advertising influences what *my friends* want to own.	M = 3.6, SD = 1.4	M = 3.9, SD = 1.6	t(86) = -1.1, p = .15
People who create advertising care about my health and happiness.	M = 5.5, SD = 1.4	M = 5.6, SD = 1.6	t(87) = -.12, p = .45
Creating and making commercials is easy.	M=6.4, SD=1.2	M=5.28, SD=1.7	t(87)3.7,p<.00***
TV commercials do not show life as it really is.	M=3.3, SD=1.4	M=2.7, SD=1.47	t(87)2.03,p<.02*
Products (such as cigarettes) are used by actors in movies to sell the product.	M=2.3, SD=1.2	M=3.28, SD=1.8	t(87)-3.0,p<.00***
Advertising shows me what type of people like and use certain products.	M=3.5, SD=1.5	M=4.1, SD=1.8	t(87)-1.7,p<.05*
In general, TV advertisements present a true picture of the product advertised.	M=4.9, SD=1.5	M=4.45, SD=1.8	t(85)1.3,p<.09
You can't believe some of what you see and read in magazines. Products and people are made to look better than they really are.	M = 1.9, SD = .95	M = 2.1, SD = 1.2	t(87) = -.87, p = .19
You can trust brands (GAP, OLD NAVY, Frosted Flakes, etc.) advertised on TV more than brands not advertised.	M = 4.0, SD = 1.5	M = 4.0, SD = 1.5	t(87) = .0, p = .5

* p<.05. **p<.01, ***p< .001

Table 13. Number of Cognitive Responses

	Experimental	Control	t test (1 tailed)
Number of thoughts listed for Diet Pepsi advertisement	M=6.6, SD=2.2	M=3.3, SD=1.8	t(86)=7.6,p<.00***
Number of thoughts listed for Clearasil advertisement	M=6.0, SD=2.48	M=3.3, SD=1.1	t(87)=6.5,p<.00***

* p<.05. **p<.01, ***p< .001

Table 14. Measures of Affect for Frosted Flakes Advertisement by Gender

How were you feeling while you watched the (Animated Frosted Flakes) advertisement?

	Condition	Male	Female	t test (2 tailed)
Alert2	Experimental	M = 5.0, SD = 1.8	M = 4.5, SD = 1.7	t(44) = -.9, p = .4
	Control	M = 4.7, SD=1.3	M=4.9, SD = 1.8	t(40) = .39, p = .7
Happy2	Experimental	M = 5.6, SD = 1.6	M = 5.6, SD = 1.3	t(44) = .09, p = .9
	Control	M = 5.4, SD = 1.2	M = 5.0, SD = 1.7	t(40) =-.97, p = .34
Tense2	Experimental	M = 2.7, SD = 1.6	M = 2.2, SD = 1.3	t(44) = -1.0, p = .3
	Control	M = 2.7, SD = 1.4	M = 2.2, SD = 1.1	t(40) = -1.2, p = .24
Suspicious2	Experimental	M = 2.7, SD = 1.7	M = 2.6, SD = 1.5	t (44) = -1.8, p = .9
	Control	M = 2.4, SD = 1.5	M = 1.7, SD = 1.2	t(40) = -1.6, p = .13
Irritable2	Experimental	M = 2.8, SD = 1.2	M = 2.2, SD = 1.2	t(44) = -1.6, p = .1
	Control	M = 2.5, SD = 1.4	M = 2.1, SD = 1.5	t(40) = -.77, p =.45
Strong2	Experimental	M = 5.2, SD = 1.7	M = 4.0, SD = 1.6	t(43) = -2.4, p <.02*
	Control	M = 5.0, SD = 1.9	M = 3.8 SD = 1.6	t(40) = -2.3, p < .03*
Active2	Experimental	M = 5.5, SD = 1.9	M = 5.1, SD = 1.6	t(44) = -.8, p = .4
	Control	M = 5.4, SD = .97	M = 5.0, SD = 2.1	t(40) = -1.04, p = .31
Creative2	Experimental	M = 5.6, SD = 1.3	M = 5.0, SD = 1.7	t(44) = -12, p = .2
	Control	M = 5.0, SD = 2.1	M = 5.3, SD = 1.8	t(40) = .56, p = .6
Free2	Experimental	M= 4.7, SD = 1.2	M = 4.7, SD = 1.5	t(44) = -.05, p = .96
	Control	M = 5.1, SD = 1.1	M = 4.2, SD = 1.6	t(40) = -2.0, p <.05*
Excited2	Experimental	M = 5.2, SD = 1.5	M = 5.0, SD = 1.6	t(44) = -.4, p = .7
	Control	M = 5.0, SD = 1.4	M = 4.8, SD = 2.0	t(40) = -27, p =.8

* p<.05. **p<.01, ***p< .001

Table 15. Measures of Affect for MasterCard Advertisement by Gender

How were you feeling while you watched the (MasterCard) advertisement?

	Condition	Male	Female	t test (2 tailed)
Alert3	Experimental	M = 4.8, SD = 2.0	M = 4.5, SD = 1.8	t(44) = -.4, p = .7
	Control	M = 4.5, SD = 1.7	M = 4.7, SD = 1.4	t(41) = .4, p = .7
Happy3	Experimental	M = 6.0, SD = 1.0	M = 5.5, SD = 1.4	t(44) = -1.2, p = .2
	Control	M = 5.6, SD = 1.3	M = 5.8, SD = 1.3	t(41) = .5, p = .7
Tense3	Experimental	M = 2.2, SD = 1.4	M = 1.4, SD = .63	t(44) = -2.5, p <.01*
	Control	M = 1.9, SD = 1.2	M = 2.0, SD = 1.1	t(41) = .5, p = .6
Suspicious3	Experimental	M = 2.3, SD = 1.5	M = 2.3, SD = 1.5	t(44) = .04, p = .9
	Control	M = 2.1, SD = 1.3	M = 2.1, SD = 1.4	t(41) = -.03, p = 1.0
Irritable3	Experimental	M = 2.7, SD = 1.5	M = 2.8, SD = 1.4	t(44) = .1, p = .9
	Control	M =2.5, SD = 1.4	M = 2.4, SD = 1.7	t(41), -.1, p = .9
Strong3	Experimental	M = 4.1, SD = 1.6	M = 4.1, SD =1.8	t(44) = .02, p = 1.0
	Control	M = 4.6, SD = 1.5	M = 3.7, SD = 1.5	t(41) = -2.0, p <.05*
Active3	Experimental	M = 4.8, SD = 1.5	M = 4.1, SD = 1.8	t(44) = -1.2, p = .2
	Control	M = 5.2, SD = 1.6	M = 4.5, SD = 1.8	t(41) = -1.3, p = .2
Creative3	Experimental	M = 6.7, SD = 1.0	M = 5.5, SD = 1.6	t(44) = -2.9, p < .01*
	Control	M = 5.8, SD = 1.5	M = 5.5, SD = 1.6	t(41) = -.6, p = .6
Free3	Experimental	M = 5.1, SD = 1.6	M = 4.8, SD = 1.4	t(44) = -.8, p = .4
	Control	M = 5.4, SD = 1.3	M = 4.8, SD = 1.7	t(41) = -1.2, p = .2
Excited3	Experimental	M = 5.4, SD = 1.5	M = 4.9, SD = 1.7	t(44) = -1.0, p = .3
	Control	M = 5.2, SD = 1.7	M = 5.0, SD = 1.8	t(41 = -.4, p = .7

* p<.05. **p<.01, ***p< .001

Table 16. Attitudinal measures of involvement, desire to think about media, and learning about media by Gender.

Scale (1-7) *1-Strongly Agree;* *4 Neutral;* *7 Strongly Disagree*	**Condition**	**Male**	**Female**	**t-test (2 tailed)**
I form opinions about most things I see, hear, and read in the media (TV, magazines, internet, radio, film, videogames etc.).	Experimental	M = 3.0, SD = 1.6	M = 2.8, SD = 1.2	t(44) = -.48, p = .63
	Control	M= 3.0, SD = 1.1	M= 2.9, SD = 1.4	t(41) = -.23, p = .81
I think about why I like or dislike certain media messages.	Experimental	M = 4.5, 1.7	M = 3.7, SD 1.6	t(44) = -1.6. p = .13
	Control	M= 3.6, SD = 1.5	M = 3.8, SD = 1.6	t(41) = .34, p = .75
I have more opinions about things I see in the media than other people I know.	Experimental	M = 4.4, SD = 1.3	M = 4.0, SD = 1.4	t(44) = -.96, p = .34
	Control	M = 4.1, SD = 1.5	M = 4.1, SD = .8	t(41) = .25, p = .80
I prefer not to think much about information I see on the internet or on television.	Experimental	M = 3.6, SD = 1.7	M = 4.1, SD = 1.3	t(44) = 1.3, p = .21
	Control	M = 3.8, SD = 1.4	M = 4.2, SD = 1.3	t(41) = 1.0, p = .32
Usually, I only form opinions about things I see and hear in the media when I am asked.	Experimental	M = 3.7, SD = 1.6	M = 3.6, SD = 1.7	t(44) = -.13, p = .9
	Control	M = 3.3, SD = 1.4	M = 4.0, SD = 1.6	t(41) = 1.5, p = .15
I really enjoy creating media (animation, websites, advertisements, music, etc.).	Experimental	M = 2.9, SD = 1.5	M = 2.7, SD = 1.6	t(44) = -.3, p = .8
	Control	M = 3.2, SD = 1.7	M = 4.1, SD = 1.8	t(41) = 1.8, p = .09
I enjoy talking about different media I watch, see, hear or read with friends, and/or family.	Experimental	M = 4.1, SD = 1.7	M = 3.3, SD = 1.6	t(44) = -1.7, p = .09
	Control	M = 3.1, SD = 1.4	M = 3.3, SD = 1.6	t(41) = .49, p = .63

	Condition	Male	Female	t-test (2 tailed)
I don't usually think about problems concerning the media.	Experimental	M = 3.1, SD = 1.7	M = 3.6, SD = 1.2	t(44) = 1.2, p = .25
	Control	M = 3.1, SD 1.4	M = 3.1, SD = 1.3	t(41) = .20, p = .84
Learning new ways to think about advertising doesn't excite me very much.	Experimental	M = 3.3, SD = 1.6	M = 4.2, SD = 1.6	t(44) = 1.9, p = .07
	Control	M = 3.0, SD = 1.4	M = 2.9, SD = 1.2	t(41) = -.35, p = .73
I enjoy learning about how and why certain programs, movies, advertisements, etc. were created.	Experimental	M = 3.7, SD = 1.8	M = 3.6, SD = 1.5	t(44) = -.11, p = .90
	Control	M = 4.5, SD = 1.8	M = 4.7, SD = 1.7	t(41) = .53, p = .60
I like being able to talk about media (television shows, movies, advertising, etc.) I enjoy at home in class.	Experimental	M = 3.4, SD = 1.5	M = 3.1, SD = 1.6	t(44) = -.7, p = .50
	Control	M = 4.0, SD = 1.7	M = 3.6, SD = 1.6	t(41) = -.73, p = .47

* p<.05. **p<.01, ***p< .001

Table 17. Measures of Concentration and Involvement with Message by Gender

		Male	Female	t-test (2 tailed)
How well were you concentrating?2b	Experimental	M = 6.2, SD = 2.4	M = 5.7, SD = 2.2	t(43) = -.15, p = .89
	Control	M = 6.1, SD = 2.1	M = 6.0, SD = 2.2	t(49) = -.75, p = .46
How well were you concentrating?3a	Experimental	M = 7.0, SD = 2.3	M = 7.2, SD = 1.5	t(44) = .42, p = .67
	Control	M = 5.6, SD = 2.1	M = 6.2, SD = 2.6	t(41) = .72, p = .47
Was it hard to concentrate?2b	Experimental	M = 1.1, SD = 1.2	M = 1.8, SD = 2.0	t(43) = 1.2, p = .22
	Control	M = .81, SD = 1.2	M = .60, SD = 1.1	t(39) = -.60, p = .56
Was it hard to concentrate?3a	Experimental	M= 1.4, SD = 2.4	M = 1.8, SD = 2.3	t(44) = .53, p = .60
	Control	M = 1.3, SD = 2.1	M = .83, SD = 1.4	t(41) = -.88, p = .39
Were you in control of your actions?2b	Experimental	M = 6.3, SD = 2.8	M = 7.0, SD = 2.3	t(43) = .84, p = .40
	Control	M = 7.6, SD = 2.2	M = 6.8, SD = 2.5	t(39) = -1.1, p = .27
Were you in control of your actions?3a	Experimental	M = 7.5, SD = 2.3	M = 7.8, SD = 1.5	t(44) = .41, p = .69
	Control	M = 7.3, SD = 2.3	M = 7.0, SD = 2.2	t(41) = -.44, p = .67
How confident were you?2b	Experimental	M = 5.3, SD = 2.3	M = 5.5, SD = 2.3	t(42) = .19, p = .85
	Control	M = 5.1, SD = 1.8	M = 3.9, SD = 2.3	t(39) = -1.9, p = .07
How confident were you? 3a	Experimental	M = 5.8, SD = 2.1	M = 6.2, SD = 2.0	t(44) = .70, p = .51
	Control	M = 5.8, SD = 2.1	M = 4.7, SD = 2.1	t(41) = .20, p = .84

*p<.05. **p<.01, ***p< .001

Table 18. Measures of Concentration and Reported Skill Level by Gender

		Male	**Female**	**t test (2 tailed)**
How challenged were you while viewing?2b	Experimental	M = 2.3, SD = 2.6	M = 2.3, SD = 1.9	t(43) = .00, p = 1.0
	Control	M = 2.1, SD = 2.2	M = .95, SD = 1.5	t(39) = -1.9, p = .06
How challenged were you while viewing?3a	Experimental	M = 2.4, SD = 2.1	M = 1.8, SD = 2.1	t(43) = -.81, p = .42
	Control	M = 1.2, SD = 1.7	M = 1.5, SD = 2.3	t(41) = .51, p = .61
How low or high were your skills in viewing?2b	Experimental	M = 5.3, SD = 2.7	M = 6.3, SD = 2.2	t(43) = 1.3, p = .19
	Control	M = 6.3, SD = 2.0	M = 6.2, SD = 2.9	t(39) = -.24, p = .81
How low or high were your skills in viewing?3a	Experimental	M = 6.7, SD = 1.8	M = 7.1, SD = 1.6	t(44) = .83, p = .41
	Control	M = 6.8, SD = 2.8	M = 6.3, SD = 2.0	t(41) = -.55, p = .58
Your wish to be doing something other than viewing? 2b	Experimental	M = 4.7, SD = 2.3	M = 4.6, SD = 2.7	t(42) = .13, p = .89
	Control	M = 4.8, SD = 2.8	M = 4.7, SD = 2.9	t(39) = -.07, p = .95
Your wish to be doing something other than viewing? 3a	Experimental	M = 3.2, SD = 2.6	M = 3.8, SD = 2.9	t(44) = .77, p = .65
	Control	M = 4.7, SD = 2.9	M = 4.3, SD = 3.3	t(41) = -.41, p = .68

Table 19. Measures of Student Attitudes Toward Tobacco Use

	Condition	Male	Female	t-test (2 tailed)
Good / Bad	**Experimental**	M = 6.8, SD = .97	M = 6.8, SD = .60	t(44) = .27, p = .79
	Control	M = 6.8, SD = .50	M = 7.0, SD = .00	t(43) = 1.7, p = .09
Resistible /Irresistible	**Experimental**	M = 3.5, SD 2.7	M = 2.5, SD = 2.1	t(44) = -1.4, p = .18
	Control	M = 3.0, SD = 2.3	M = 3.0, SD = 2.4	t(43) - .07, p - .95
Cool/ Uncool	**Experimental**	M = 6.9, SD = .50	M = 6.7, SD = 1.1	t(43) = -.62, p = .54
	Control	M = 6.8, SD = .43	M = 6.9, SD = .63	t(43) = .60, p = .55
Boring / Interesting	**Experimental**	M = 2.0, SD = 1.8	M = 1.5, SD = 1.3	t (44) = -1.0, p = .30
	Control	M = 1.6, SD = 1.1	M = 1.5, SD = .99	t(43) = -.38, p = .70
Dirty / Clean	**Experimental**	M = 1.0, SD = .00	M = 1.1, SD = .26	t(44) = 1.1, p = .28
	Control	M = 1.0, SD = .21	M = 1.2, SD = .49	t(43) = 1.1, p = .27
Stylish / Unstylish	**Experimental**	M = 6.2, SD = 2.0	M = 6.4, SD = 1.4	t(44) .36, p = .72
	Control	M = 6.7, SD = .63	M = 6.7, SD = .86	t(43) = .05, p = .96
Relaxing / Non-relaxing	**Experimental**	M = 5.8, SD = 2.1	M = 5.3, SD = 2.1	t(44) = -.71, p = .48
	Control	M = 5.1, SD = 2.3	M = 5.4, SD = 2.1	t(43) = .53, p = .60
Distasteful / Tasteful	**Experimental**	M = 1.9, SD = 1.7	M = 1.5, SD = 1.4	t(44) = -.71, p = .48
	Control	M = 1.7, SD = 1.4	M = 1.8, SD = 1.8	t(43) = .21, p = .84
Smooth / Rough	**Experimental**	M = 5.5, SD = 2.1	M = 5.8, SD = 1.4	t(44) = .70, p = .49
	Control	M = 5.5, SD = 1.4	M = 6.6, SD = .84	t(43) = 3.2, p < .00***
Sweet / Sour	**Experimental**	M = 5.5, SD = 1.4	M = 6.6, SD = .84	t(44) = .34, p = .74
	Control	M = 6.1, SD = 1.7	M = 6.2, SD = 1.2	t(43) = 3.3, p < .00***
Nice / Awful	**Experimental**	M = 5.2, SD = 1.5	M = 6.4, SD = 1.0	t(44) = -.76, p = .45
	Control	M = 7.0, SD = .00	M = 6.9, SD = .56	t(43) = 1.0, p = .31

* p<.05. **p<.01, ***p< .001

Table 20. Measures of Student Attitudes Toward Tobacco Use, Continued

	Condition	**Male**	**Female**	**t-test (2 tailed)**
I believe smoking is bad.	Experimental	M = 4.9, SD = .24	M = 4.3, SD = .24	t(44) = -1.7, p = .09
	Control	M = 4.5, SD = 1.9	M = 4.7, SD = .94	t(42) = .70, p = .48
I believe smoking occasionally at parties is OK.	Experimental	M = 1.5, SD = .72	M = 1.4, SD = .95	t(44) = -.21, p = .83
	Control	M = 1.6, SD = .90	M = 1.4, SD = 1.1	t(42) = -.77, p = .45
I believe staying away from smoking is good.	Experimental	M = 4.9, SD = .33	M = 4.9, SD = .35	t(44) = -.19, p = .85
	Control	M = 4.7, SD = .70	M = 4.9, SD = .30	t(42) = 1.1, p = .27

Table 21. Measures of Student Intention to Smoke

	Condition	**Male**	**Female**	**t test (2 tailed)**
How likely are you to smoke?	Experimental	M = 1.5, SD = .71	M = 1.3, SD = .70	t(44) = - 1.1, p = .30
	Control	M = 1.8, SD = .92	M = 1.4, SD = .80	t(42) = -1.6 p = .12
How likely are you to smoke at parties?	Experimental	M = 1.5, SD = .62	M = 1.5, SD = .83	t(44) = -.05, p = .31
	Control	M = 1.9, SD = 1.2	M = 1.6, SD = 1.1	t(42) = -.94, p = .35
How likely are you to stay away from smoking?	Experimental	M = 3.8, SD = 1.6	M = 4.1, SD = 1.5	t(44) = -.05, p = .96
	Control	M = 3.5, SD = 1.6	M = 3.6, SD = 1.6	t(42) = .19, p = .90

Table 22. Measures of Student Attitudes Toward School and Working Collaboratively by Gender

	Condition	**Male**	**Female**	**t-test (2 way)**
Working on a project alone is more important than working in a team.	Experimental	M = 6.3, SD = 1.0	M = 5.4, SD = 1.6	t(44) = -1.9, p = .06
	Control	M = 4.9, SD = 1.6	M = 5.0, SD = 1.5	t(41) = .10, p = .92
Working in a team is more interesting and exciting than working alone.	Experimental	M = 1.6, SD = 1.0	M = 1.6, SD = .94	t(44) = .08, p = .94
	Control	M = 2.7, SD = 1.8	M = 2.5, SD = 1.4	t(41) = -.40, p = .70
I enjoy school.	Experimental	M = 4.2, SD = 1.6	M = 3.8, SD = 1.8	t(44) = -.73, p = .47
	Control	M = 3.4, SD = 1.6	M = 3.9, SD = 1.6	t(41) = 1.1, p = .28
I like language arts class.	Experimental	M = 3.3, SD = 1.7	M = 2.4, SD = .93	t(44) = -2.4, p < .02*
	Control	M = 4.7, SD = 1.6	M = 3.7, SD = 1.7	t(41) = -2.1, p > .04*
I like social studies class.	Experimental	M = 2.8, SD = 1.5	M = 2.8, SD = 1.5	t(44)= -.09, p = .92
	Control	M = 3.7, SD = 1.7	M = 4.2, SD = 2.0	t(41) = .83, p = .41
I pay attention to advertisements.	Experimental	M = 3.6, SD = 1.9	M = 3.0, SD = 1.3	t(44)= -1.3, p = .23
	Control	M = 4.2, SD = 1.5	M = 3.2, SD = 1.1	t(41) = -2.5, p > .02*
I enjoy looking at advertisements.	Experimental	M = 3.4, SD = 1.6	M = 3.0, SD = 1.1	t(44) = -1.0, p = .32
	Control	M = 3.3, SD = 1.5	M = 3.0, SD = 1.3	t(41) = -.67, p = .50

* p<.05. **p<.01, ***p< .001

Table 23. Measures of Student Skepticism and Awareness of Media Messages by Gender

	Condition	Males	Females	t-tests (2 way)
People who create media think a lot about how to get people interested in watching, reading or listening.	Experimental	M = 1.4, SD= .7	M = 1.2, SD =.6	t(44) = -.9, p = .4
	Control	M = 1.5, SD = .81	M = 1.9, SD = 1.7	t(41) = .95, p = .35
People who create media are influenced a lot by the need to make money.	Experimental	M = 2.1, SD = 1.4	M = 2.3, SD = 1.5	t(44) = .5, p = .65
	Control	M = 1.5, SD = .81	M = 2.6, SD = 1.7	t(41) = 2.7, p > .01*
It would be hard for me to go a week without watching TV.	Experimental	M = 3.6, SD = 2.1	M = 2.6, SD =1.9	t(44) = -1.7, p = .09
	Control	M = 3.7, SD = 2.4	M = 3.1, SD = 1.9	t(40) = .-77, p = .44
I wish I owned a lot of the things that I see advertised on television and in magazines.	Experimental	M = 3.0, SD = 1.5	M =3.4, SD = 1.2	t(44) = .9, p = .40
	Control	M = 3.4, SD = 1.9	M = 3.3, SD = 1.6	t(41) = .11, p = .90
Advertising doesn't influence my decision about what to buy.	Experimental	M = 3.4, SD = 1.3	M = 4.1, SD = 1.5	t(44) = 1.4, p = .17
	Control	M = 3.5, SD = 1.3	M = 4.2, SD = 1.7	t(39) = 1.4, p = .16
People are likely to understand the same media messages (movies, television shows, etc.) differently.	Experimental	M = 2.7, SD = 1.5	M = 2.1, SD = .95	t(44) = -1.7, p = .10
	Control	M = 3.0, SD = 1.6	M = 2.7, SD = 1.4	t(41) = -.70 p = .50
I trust television advertising.	Experimental	M = 5.1, SD = 1.2	M = 5.6, SD = 1.1	t(44) = 1.6, p = .13
	Control	M = 5.6, SD = 1.0	M = 5.5, SD = 1.5	t(41) = -.42, p = .67
When I watch television advertising, I think about how and why the ad was created.	Experimental	M = 4.8, SD = 1.7	M = 4.0, SD = 1.9	t(44) = -1.4, p = .18
	Control	M = 5.6, SD = 1.4	M = 5.0, SD = 1.7	t(41) = -1.3, p = .19

* p<.05. **p<.01, ***p< .001

Table 24. Measures of Student Skepticism and Awareness of Media Messages, Continued

	Condition	Males	Females	t-tests (2 way)
Each type of media (television, magazines, radio, etc.) has different strengths and weaknesses.	Experimental	M = 2.0, SD = 1.0	M = 2.0, SD = .9	t(44) = -1.1, p = .90
	Control	M = 2.1, SD = .85	M = 2.3, SD = 1.1	t(41) = .59, p = .56
TV and magazine advertising helps me learn about what is in style.	Experimental	M = 3.4, SD = 1.5	M = 3.2, SD = 1.2	t(44) = -.6, p =.57
	Control	M = 3.7, SD = 1.6	M = 3.2, SD = 1.3	t(41) = -1.1, p = .28
Advertising influences what *my friends* want to own.	Experimental	M = 4.0, SD = 1.6	M = 3.4, SD = 1.3	t(44) = -1.3, p = .20
	Control	M = 4.0, SD = 1.6	M = 4.0, SD = 1.7	t(40) = .09, p = .92
People who create advertising care about my health and happiness.	Experimental	M = 5.5, SD = 1.6	M = 5.5, SD = 1.3	t(44) = .08, p = .93
	Control	M = 5.5, SD = 1.7	M = 5.6, SD = 1.5	t(41) = .33, p = .74
Creating and making commercials is easy.	Experimental	M = 6.3, SD = .95	M = 6.5, SD = 1.3	t(44) = .49, p = .62
	Control	M = 4.7, SD = 1.7	M = 5.8, SD = 1.6	t(41) = 2.2, p >.03*
TV commercials do not show life as it really is.	Experimental	M = 3.1, SD = 1.6	M = 3.5, SD = 1.3	t(44) = .99. p = .33
	Control	M = 2.3, SD = 1.3	M = 3.3, SD = 1.5	t(41) = 1.9, p = .06
Products (such as cigarettes) are used by actors in movies to sell the product.	Experimental	M = 1.9, SD = 1.1	M = 2.5, SD = 1.2	t(44) = 1.5, p = .13
	Control	M = 3.3, SD = 1.9	M = 3.3, SD = 1.8	t(41) = -.02, p = .98
Advertising shows me what type of people like and use certain products.	Experimental	M = 3.6, SD = 1.9	M = 3.5, SD = 1.3	t(44) = -.2, p = .80
	Control	M = 3.9, SD = 1.0	M = 4.4, SD = 1.7	t(41) = 1.0, p = .31
In general, TV advertisements present a true picture of the product advertised.	Experimental	M = 4.9, SD = 1.5	M = 4.9, SD = 1.6	t(43) = -.01, p = .99
	Control	M = 4.1, SD = 1.5	M = 4.7, SD 2.1	t(40) = 1.1, p = .27
You can't believe some of what you see and read in magazines. Products and people are made to look better than they really are.	Experimental	M = 2.1, SD = .93	M = 1.8, SD = .96	t(44) = -.89, p = .38
	Control	M = 2.2, SD = 1.4	M = 2.0, SD = 1.0	t(41) = -.50, p = .62
You can trust brands (GAP, OLD NAVY, Frosted Flakes, etc.) advertised on TV more than brands not advertised.	Experimental	M = 3.7, SD = 1.8	M = 4.2, SD = 1.4	t(44) = 1.0, p = .32
	Control	M = 3.6, SD 1.6	M = 4.4, SD = 1.3	t(41) = 1.7, p = .10

* p<.05. **p<.01, ***p< .001

Table 25. Measures of Student Attitudes toward Advertising by Gender

	Condition	Males	Females	t-test (2 way)
Good/Bad	Experimental	M = 3.5, SD = 1.4	M = 3.6, SD = 1.1	t(44) = .22, p = .83
	Control	M = 2.9, SD = .87	M = 3.6, SD = 1.2	t(43) = 2.1, p > .04*
Resistible/ Irresistible	Experimental	M = 3.1, SD = 1.3	M = 3.8, SD = 1.4	t(44) = 1.7, p = .09
	Control	M = 3.3, SD = 1.2	M = 3.9, SD = 1.6	t(43) = 1.5, p = .14
Pay Attention/ Ignore	Experimental	M = 3.5, SD = 1.7	M = 3.2, SD = 1.5	t(44) = -.71, p = .50
	Control	M = 4.4, SD = 1.3	M = 3.3, SD = 1.3	t(43) = -2.7, p < .00***
Care/Don't Care	Experimental	M = 3.9, SD = 1.7	M = 4.1, SD = 1.5	t(44) = .27, p = .80
	Control	M = 4.6, SD = 1.5	M = 3.9, SD = 1.4	t(43) = -1.8, p = .08
Cool/Uncool	Experimental	M = 3.6, SD = 1.1	M = 3.4, SD = 1.3	t(44) = -.73, p = .47
	Control	M = 3.7, SD = .72	M = 4.1, SD = 1.4	t(43) = 1.2, p = .24
Useful/Not Useful	Experimental	M = 2.9, SD = 1.4	M = 3.2, SD = 1.5	t(44) = .66, p = .51
	Control	M = 3.0, SD = 1.3	M = 2.9, SD = 1.5	t(43) = -.32, p = .80
Like/Dislike	Experimental	M = 3.6, SD = 1.4	M = 3.4, SD = 1.3	t(44) = -.57, p = .57
	Control	M = 3.5, SD = 1.3	M = 3.7, SD = 1.5	t(43) = .40, p = .72
Shallow/Deep	Experimental	M = 3.9, SD = 1.1	M = 3.7, SD = 1.2	t(44) = -.72, p = .47
	Control	M = 3.8, SD = 1.3	M = 3.4, SD = .94	t(43) = -1.1, p = .30
Easy to Create / Difficult to Create	Experimental	M = 5.7, SD = 1.6	M = 6.1, SD = 1.4	t(44) = .96, p = .34
	Control	M = 4.7, SD = 1.7	M = 4.9, SD = 1.8	t(43) = .44, p = .67
Expensive / Inexpensive	Experimental	M = 2.3, SD = 1.6	M = 2.2, SD = 1.6	t(44) = -.24, p = .81
	Control	M = 2.5, SD = 1.2	M = 2.3, SD = 1.3	t(43) = -.65, p = .52
Nice/Awful	Experimental	M = 3.5, SD = 1.4	M = 3.5, SD = .99	t(44) = .13, p = .90
	Control	M = 3.7, SD = .71	M = 3.7, SD = 1.0	t(43) = .05, p = .96

* p<.05. **p<.01, ***p< .001

Table 26. Attitudinal Gender Differences between Groups

				T test one tailed	
	Gender	Experimental	Control	Experimental	Control
I trust television advertising.	Female	M = 5.6, SD = 1.1	M = 5.5, SD = 1.5	t(44) = 1.6, p < .06	t(41)= -.42, p =.4
	Males	M = 5.1, SD = 1.2	M = 5.6, SD = 1.0		
People are likely to understand the same media message differently.	Females	M = 2.1, SD = .96	M = 2.7, SD = 1.4	t(44) = -1.6, p <.05*	t(41)= -.7, p = .3
	Males	M = 2.7, SD 1.4	M = 3.0, SD = 1.6		
It would be hard for me to go a week without watching television.	Females	M = 2.6, SD =1.9	M = 3.1, SD = 1.9	t(44)= -1.7, p < .05*	t(41)= -.8, p = .2
	Males	M = 3.6, SD = 2.1	M = 3.7, SD = 2.4		
TV commercials do not show life as it really is.	Female	M =3.5, SD = 1.3	M = 3.1 , SD = 1.5	t(44)= .98, p = .17	t(41)= -.1.9, p<.03*
	Male	M =3.1, SD = 1.6	M = 2.3, SD = 1.3		
When I watch TV advertising, I think about how the ad was made.	Female	M = 4.0, SD = 1.9	M = 5.0, SD = 1.7	t(44) = -1.4, p =.09	t(41)= -.1.3, p =.09
	Males	M = 4.8, SD = 1.7	M = 5.6, SD = 1.4		
Advertising doesn't influence my decision about what to buy.	Females	M = 4.1, SD = 1.5	M = 4.2, SD = 1.7	t(44) = 1.3, p = .09	t(41)= 1.4, p = .08
	Males	M = 3.4, SD = 1.3	M = 3.5, SD = 1.3		
Creating and making commercials is easy.	Females	M = 6.5, SD = 1.3	M = 5.8, SD = 1.6	t(44)= .5, p = .3	t(41)= 2.2, p < .02*
	Males	M = 6.3, SD = .95	M = 4.7, SD = 1.7		
People who create media are influenced a lot by the need to make money.	Females	M = 2.3, SD = 1.5	M = 2.6, SD = 1.7	t(44) = .5, p = .3	t(41) = 2.7, p <..00***
	Males	M = 2.1, SD = 1.4	M = 1.5, SD = .81		
You can trust brands advertised on TV more than brands not advertised.	Females	M = 4.2, SD = 14	M = 4.4, SD = 1.3	t(44) = 1.0, p = .2	t(41) = 1.7, p <..05*

Table 27. Summary of Thematic Thought-listings

	Experimental Number of thoughts identified	**% Percentage of total**	Control Number of thoughts identified	**% Percentage of total**	Total Number of thought type (combined)
Self-Reference	46	**77%**	14	**23%**	60
Affect	135	**70%**	58	**30%**	193
Source Discounting	38	**54%**	32	**46%**	70
Production, music/text /editing	49	**55%**	40	**45%**	89
Colors	25	**86%**	4	**14%**	29
Actors	143	**72%**	56	**28%**	199
Reference to Product	64	**63%**	38	**37%**	102

Table 28. Summary and Example of Self-Reference Thoughts

	Experimental N	%	Control N	%	Total N
Self-Reference	46	77%	14	23%	60

Examples of Self Reference

Experimental	**Control**
I thought it was cute Thirsty I was entertained while watching I wasn't bored After seeing the commercial, I would buy it Made me feel energetic Thirsty Funny – made me laugh Yeah right, sure it works Got me excited Made me think about my friends A bit annoying Felt like dancing I think the commercial was corny I thought it was happy I thought it was tense I want a Diet Pepsi The commercial made you think why did they make it like that I thought it was crazy I liked Xhibits car I like Diet Pepsi I didn't like it I saw it before I am attracted to the product because I am the target audience I would never drive a diet Pepsi truck I loved the song I like dancing I could kick that guys butt at arm wrestling	I didn't like it Not interested Was interesting to watch Grabs my attention with the sound and peoples actions I like the set up of it Didn't know what was going on Enjoy watching it Makes me want to drink some Pepsi Ok advertisement Keeps me into it Kept attention I thought that was very enjoyable and humorous us Nothing draws me into it Good ad

Table 29. Summary and Examples of Affect

	Experimental N	E %	Control N	C %	Total N
Affect	135	70%	58	30%	193

Examples of Affect

Experimental	**Control**
Funny-humor Happy People enjoying themselves People having fun Everyone is nice to each other Fun music Wasn't boring Fun – they were dancing They were having fun Funny Happy Boring Happy mood Got me excited Lively –fun Energetic Cheerful They were having a lot of fun Fun Everyone seems to be happy They enjoyed using the product Excited Happy Excited Happy with themselves Cheerful/happy Funny You will be very happy with yourself It was cheery Cool	Funny Boring Very exciting Upbeat You'll be happier about your skin Exciting Funny Makes you feel excited The people are happy They had a lot of action (it wasn't boring) A funny commercial Boring not great Enjoy watching it Using kids that look happy You'll have a relationship or better Really funny Very creative I thought it was enjoyable, humorous Cool Humorous Too happy You'll feel better about yourself

Table 30. Summary and Examples of Source Discounting

	Experimental N	%	Control N	%	Total N
Source Discounting	38	54%	32	46%	70

Examples of Source Discounting

Experimental	Control
Strange Fake Yeah right, I'm sure it works Very unrealistic Stupid Boring Silly A bit annoying The commercial didn't really have anything to do with the product Weird Desperate What does it have to do with people jumping around I think the commercial was corny It was confusing The music they chose was weird The advertisement was not related to the product It was confusing Nothing to do with the drink Corny Odd The commercial was a little weird, especially the dancing It was weird Its not really catchy Dumb The people were gay The advertisement looked stupid A weird strange commercial	Pointless Strange Fake looking Boring Kind of unrealistic Not interested Weird Pointless commercial Weird activities Doesn't give a good idea of its sponsor Doesn't make sense No point to it. Doesn't relate to skin. Boring, not great Not very persuasive It was good but not on topic They look like idiots What does dancing have to do with washing face? Weird people dancing It's a little bit corny It was simple, not really persuading They did tell much about the product Didn't emphasize that the commercial was for clear skin Commercial was awkward Didn't really make sense Lame music That was a stupid commercial doesn't appeal to teenagers as cool Old fashioned commercial Bad music

Table 31. Summary and Examples of Production

	Experimental N	%	Control N	%	Total N
Production, music/text/editing	49	55%	40	45%	89
Colors	25	86%	4	14%	29
Total	74	63%	44	37%	118

Examples of Production

Experimental	Control
Up-close shots of face	Verbally present information more
Music is loud	Boring
Different settings	Fake looking
Loud music	Appeals to all ages
Fun music	90's
Well out together	Bad music
Caught my eye	Cool cars
Made sense	Dancing
Fake	Bad dancing
Cute	Good music
Energetic	Terrible music
Creative	Arm wrestling wasn't necessary
A lot of slides (i.e. edits)	90's music
Bad music	Bad clothes
Interesting	Bad styles
Weird dancing	No words
Hollywood	Weird activities
Arizona	Cheesy music
Used teenagers	Grabs my attention with the sound an the peoples actions
Jumpy music	
Very colorful	No talking, just music
Took long to shoot	The music was cheesy
The rooms were all white and the people were wearing bright colors	The dancing wasn't needed
Active	Some of the things the people did were irrelevant
Pictures are bright	There was no talking
	The letters were too small

Table 32. Summary and Examples of Colors

	Experimental N	E%	Control N	C%	Total N
Colors	25	86%	4	14%	29

Examples of Colors

Experimental	Control
Bright colors All white background Lively Colors Colorless Colorful Light colors Very colorful Pictures are bright There rooms were all white and the people were wearing bright colors Bright Bright and clear The background is white Blue Black Dark Colorful	Colorful Creative & Colorful White Not colorful; plain

Table 33. Summary and Examples of Actors

	Experimental N	%	Control N	%	Total N
Actors	143	72%	56	28%	199
Action of actors	51	75%	17	25%	68
Celebrity	29	67%	14	33%	43
Appearance	31	86%	5	14%	36
Demographics	40	65%	22	35%	62

Experimental	Control
Both boys and girls	They don't talk to you, you only read words
Everyone is nice to each other	Makes you want it because Diddy was in it
Clear skin, good-looking	Old people
All Caucasian	Famous people
P. Diddy – celebrity	Had Diddy on it and other people
Pretty girls	Weird characters
Boys and girls are attracted to people with good skin	They used people with clear skin so you don't know if it really works
Teens are happier with clear skin	They used target audience – teenagers
People follow p. diddy	Famous people drink diet Pepsi
Some people were attractive	They used a celebrity
Shows teens being themselves	Funny people
Show teens acting goofy	Actors
Mostly known celebrities	Different people
They were having fun	Bad actors
They were dancing	Good use of celebrities
He pulled up in the truck	It could have been any vehicle that picked him up
Everyone copied him	
Their faces were clear	Everyone saw him in the Pepsi truck so they thought it was cool
He is going to a cool awards show	The guy was nice to pick him up
Everyone is touching their face	Using kids that look happy
Clear skin is great and all but they don't have to throw a party	P Diddy was in it
They were having a lot of fun	Grabs attention with using a famous person
Teenagers were using it	All their skin is clear
The people are having a good time with each other	Weird people dancing
Looks like they'll keep using it	Teen
Mixture of boys and girls-its for everyone	All the people were good looking (should have just put common people)
All the people are young	
All the people have clear skin	The people were smiling

Table 34. Summary and Examples Reference to Product

	Experimental N	%	Control N	%	Total N
Reference to Product	64	63%	38	37%	102

Examples of Reference to Product

Experimental	Control
After seeing commercial I would buy it	Pepsi is good
It showed you the product right away	Pepsi
He got a ride from a diet Pepsi truck	Makes you want it
Diet Pepsi truck were the new fad	How can you be sure if its true or not
Promises clear skin, but might not work	Looks good
All famous people ride in diet Pepsi trucks	They showed the product being used
If your cool you have a diet Pepsi truck	They used people with clear skin so you don't know if it really works
The product sounds good	Famous people drink diet Pepsi
No acne	Truck company (Pepsi)
Easy to use	There wasn't enough info about the product
Good taste	You can see the results of the product
It said it would work, not possibly true	Everyone started getting Pepsi trucks
Quenches thirst	Everyone thinks the Pepsi car was his ride
I think 75% off or something	Makes pimples go away
It is an acne product	Clear skin
Diet Pepsi	Doesn't give a good idea of its sponsor
Clear skin, good-looking	Does advertising diet Pepsi the product
Made the product look like it really works	Trying to sell diet Pepsi
Use diet Pepsi	Everyone wanted a Pepsi truck b/c . Diddy had one
They enjoyed using the product	Take that they'll make you strong
Funny with the diet Pepsi trucks	Putting teens in it to show who it would work for
The cream is good	I didn't know or sure that it was trying to sell diet Pepsi
The product must really work	Make you want to buy it
When P Diddy rode the diet Pepsi truck every else started to	Too many people not using the product
Pepsi was the ad	Quick flashes of product
The advertisements was not related to the product	Too many people using product
Easy, Fast	Was it a good product
I like diet Pepsi	
Using Clearasil makes you cool and look good	

Table 35. Summary of Mindful vs. Mindless Processing

Totals for Ad 1 and Ad 2

	Mindful N	**Central %**	Mindless N	**Mindless %**	Total N
Ad 1	47	**55%**	39	**45%**	86
Ad 2	25	**28%**	63	**72%**	88
Control (Ad1 & Ad 2)	20	**24%**	64	**76%**	84
Experimental (Ad1 & Ad2)	52	**58%**	38	**42%**	90

Results for Clearasil Advertisement

Clearasil Ad (Ad1)	**Mindful N**	**Mindful %**	**Mindless N**	**Mindless %**	**Total N**
Control	**15**	**36%**	**27**	**64%**	**42**
Experimental	32	73%	12	27%	44
Total	47	55%	39	45%	86

Results for Pepsi Advertisement

Pepsi Ad (Ad 2)	**Mindful N**	**Mindful %**	**Mindless N**	**Mindless %**	**Total N**
Control	5	12%	37	88%	42
Experimental	20	43%	26	57%	46
Total	25	28%	63	72%	88

Table 36. Examples of Mindless Processing

Experimental	Control
A. 1. Thirsty 2. Fun 3. Funny 4. Loud music 5. Enthusiastic B. 1. P. Diddys car broke down 2. He got a ride from a diet Pepsi truck 3. He pulled up in the truck 4. Everyone copied him 5. Diet Pepsi trucks were the new fad C. 1. Funny 2. Great commercial 3. Interesting 4. Happy 5. Famous people 6. Award show 7. Rides 8. What they drink D. 1. Hot 2. Sunny 3. Flashy 4. Funny 5. Famous 6. Impressing 7. Colorful 8. Dull 9. Simple 10. Energetic	A. 1. Funny 2. Pepsi is good B. 1. Humorous 2. Makes you want it because ditty was in it C. 1. Pepsi 2. Pimp my ride 3. Old people 4. Cool cars 5. Famous people D. 1. Creative 2. Funny 3. Good use of celebrity E. 1. Advertising 2. Actors 3. Funny 4. Interesting

Table 37. Examples of Mindful Processing

Experimental	**Control**
1. Happy 2. People enjoying themselves 3. Both girls and boys 4. Up-close shots of face 5. Everyone is nice to each other 6. Music is loud 7. Clear skin, good looking 8. All Caucasian 9. Bright colors 10. All white background	1. Strange 2. Fake 3. Yeah, right I'm sure it works 4. Fun – they were dancing 5. Energetic
1. It showed you the product right away 2. It was very clear and understandable 3. I was entertained while watching 4. The commercial had fun and lively music 5. I wasn't bored 6. After seeing the commercial I would buy it 7. The commercial was well put together	1. It was good but not on topic 2. It was funny. No one talked in it. 3. Didn't know what was going on. 1. Using kids that look happy 2. No acne 3. Proud to wash their clean faces 1. The look like idiots 2. What does dancing have to do with clear skin 3. All their skin is clear

Table 38. Significant Mean Differences Between and Among Groups Affect

	Frosted Flakes		MasterCard		Gender – Frosted Flakes		Gender - MasterCard		
Happy	E	M=5.6		M	E		M	E	
					C			C	
	C	M=5.1		F	E		F	E	
					C			C	
Suspicious	E	**M=2.6***		M	E		M	E	
					C			C	
	C	**M=2.0**		F	E		F	E	
					C			C	
Strong	E			M	E	**M=5.2***	M	E	
					C	**M=5.0***		**C**	**M=2.2***
	C			F	E	**M=4.0**	F	E	
					C	**M=3.8**		**C**	**M=1.4**
Free	E			M	E		M	E	
					C	**M=5.1***		C	
	C			F	E		F	E	
					C	**M=4.2**		C	
Tense	E			M	E		M	**E**	**M=2.2***
					C			C	
	C			F	E		F	**E**	**M=.6**
					C			C	
Creative	E			M	E		M	**E**	**M=6.7***
					C			C	
	C			F	E		F	**E**	**M=5.5**
					C			C	
Irritable Active Excited Alert	E			M	E		M	**E**	
					C			C	
	C			F	E		F	**E**	
					C			C	
					C			C	
	C			F	E		F	**E**	
					C			C	

*= p<.05

Table 39. Significant Mean Differences Among and Between Groups – Flow Characteristics

	Frosted Flakes		Master Card	Gender – Frosted Flakes			Gender –Master Card		
How well were you concentrating?	E		**M=7.2*** **	M	E		M	E	
					C			C	
	C		**M=5.9**	F	E		F	E	
					C			C	
Was it hard to concentrate?	E	**M=1.5*** **	M=1.7	M	E		M	E	
					C			C	
	C	**M=.7**	M=1.0	F	E		F	E	
					C			C	
Were you in control of your actions?	E			M	E		M	E	
					C			C	
	C			F	E		F	E	
					C			C	
How confident were you while viewing?	E	**M=5.4***	**M=6.0*** **	M	E		M	E	
					C	M=5.1		C	
	C	**M=4.5**	**M=4.6**	F	E		F	E	
					C	M=3.9		C	
How challenged were you while viewing?	E	**M=2.3***	M=2.0	M	E		M	E	
					C	M=2.1		C	
	C	**M=1.5**	M=1.3	F	E		F	E	
					C	M=.95		C	
How low or high were your skills in viewing?	E			M	E		M	E	
					C			C	
	C			F	E		F	E	
					C			C	
Your wish to be doing something other than viewing?	E		M=3.6	M	E		M	E	
					C			C	
	C		M=4.4	F	E		F	E	

Scale 0 = Not at all (Very Low) 9 = Very Much (Very High)

Appendix A: Overview of Frosted Flakes Commercial

Advertisement begins with Tony the Tiger on a tropical island wanting to hang a hammock. Silly music plays in the background. He hooks one side of the hammock to the nearest palm tree. He looks up only to find the next closest tree is a very long way from where he standing. He picks up the hammock trudges over to the next available palm tree and hooks the other side of the hammock. He lies down in the hammock but it is stretched so tightly that it rolls him up and flings him off. He flies through the air and lands on the ground making a large hole in the sand. Above the hole a box of cereal, a plate of toast, and a pitcher of milk appear.

Voiceover: "Supercharged Frosted Flakes and a good breakfast will bring out the tiger in you".

Tony eats the cereal. Next thing we see is Tony growing four times his original size. The words SUPERCHARGED flash across the screen. He grabs both palm trees and with his shear strength he pulls them closer together. He hangs the hammock once again (this time much easier because the trees are closer together). Laying down with his feet up and yawing.

Tony the Tiger: "Ahhh….They're Great!"

Appendix B: MasterCard Advertisement Overview

Opening scene: Seven food mascots sitting around a formal dining room table. The Morton Salt Guy, Frankenberry (cereal character), Star-Kist Tuna, Planters Peanut, Chef Boyardee, Vlassic Pickle Stork, Morton Salt Girl and the Pillsbury Doughboy exchange pleasantries while the Jolly Green Giant looks in through an exterior window.

Jolly Green Giant: Ho! Ho! Ho!

Voiceover: Broccoli 1.79 on debit card (words also shown on screen)

Star-Kist Tuna: Casserole anyone?

Voiceover: Tuna 3.59 (words also appear on screen)

Pillsbury Doughboy: Hee Hee (laughs in the background)

VO: Getting everyone together for dinner?

Background voice: You certainly are in a pickle.

VO: Priceless

VO: There are some things money can't buy.

Star-Kist Tuna: (walks into kitchen with a handful of plates) I'm stuffed to the gills. (Hands the plates to the Armor Hammer Guy)

VO: For everything else there's MasterCard. Accepted at your favorite supermarket.

Appendix C: Overview of Diet Pepsi Commercial

P. Diddy in the desert-wearing a tuxedo- standing on the side of the road. He attempts to use his cell phone. It has no reception. He's upset.

Pepsi truck drives up to him (as he's passing). Drivers window is down.

Diddy: "Hey, hey I'm late for an awards show. Can I get a ride?"

Driver: "Come on hop in."

Truck pulls up to the awards ceremony red carpet

Announcer: "I'll tell you Carson, the excitement here is tremendous."

Carson: "Look at that…I didn't know P. Diddy drove a Diet Pepsi truck"

Funky Music

Eva Longoria hands keys to a valet.

Eva: "Don't scratch it"

African American Guy: "Alright, this is how I roll"

Sides of truck lift up and inside we see a club scene. People, lights, and music are shown.

Montage of different people driving the truck (old, young, various races)

Music: "Come on, Come on, lets take a ride don't you…."

Guy backs truck into garbage cans he shouts out the truck window

Cute Caucasian Guy: "Hey, yo' P. Check out my new ride"

Diddy looks shocked

End tag line….Light Crisp Refreshing

http://www.mypartypost.com/watchvideobig/2334/Commercial-_Diet_Pepsi-_P_Diddys_Ride

Appendix D: Overview of Clearasil Commercial

When does clear skin matter?*
Product Shot
Funky music
Girl Kisses Guy
Teenagers dancing – group dancing toward camera
Individual actors medium shots

When doesn't it?*
Arm wrestling – guy and girl; girl winning
Shot on an angle, white background

Stay Clear helps prevent acne*
Product shot
Girl hugging guy, white background

75% better than washing alone*
Teens washing their faces, splashing water

Pretty clear huh?*
Close up shots of face
Group running toward the camera
Guy making a muscle
Guy doing a flip

Be comfortable in your skin*
Product shot

*Bolded words are typed print seen during the advertisement

Most of commercial is shot on an angle when people are in it. Only the words are level. No words are spoken. All language must be read by the viewer. Fast paced.

Appendix E: Attitudinal Questions about Media Use & Advertising

		Strongly Agree	Agree	Somewhat Agree	Neither agree or disagree	Somewhat Disagree	Disagree	Strongly Disagree
1	People who create media think a lot about how to get people interested in watching, reading or listening.	1	2	3	4	5	6	7
2	People who create media are influenced a lot by the need to make money.	1	2	3	4	5	6	7
3	It would be hard for me to go a week without watching TV.	1	2	3	4	5	6	7
4	I wish I owned a lot of the things that I see advertised on television and in magazines.	1	2	3	4	5	6	7
5	Advertising doesn't influence my decision about what to buy.	1	2	3	4	5	6	7
6	People are likely to understand the same media messages (movies, television shows, etc.) differently.	1	2	3	4	5	6	7
7	I trust television advertising.	1	2	3	4	5	6	7
8	When I watch television advertising, I think about how and why the ad was created.	1	2	3	4	5	6	7
9	Each type of media (television, magazines, radio, etc.) has different strengths and weaknesses.	1	2	3	4	5	6	7
10	TV and magazine advertising helps me learn about what is in style.	1	2	3	4	5	6	7
11	Advertising influences what *my friends* want to own.	1	2	3	4	5	6	7
12	People who create advertising care about my health and happiness.	1	2	3	4	5	6	7

		Strongly Agree	Agree	Somewhat Agree	Neither agree or disagree	Somewhat Disagree	Disagree	Strongly Disagree
13	Creating and making commercials is easy.	1	2	3	4	5	6	7
14	TV commercials do not show life as it really is.	1	2	3	4	5	6	7
15	Products (such as cigarettes) are used by actors in movies to sell the product.	1	2	3	4	5	6	7
16	Advertising shows me what type of people like and use certain products.	1	2	3	4	5	6	7
17	In general, TV advertisements present a true picture of the product advertised.	1	2	3	4	5	6	7
18	You can't believe some of what you see and read in magazines. Products and people are made to look better than they really are.	1	2	3	4	5	6	7
19	You can trust brands (GAP, OLD NAVY, Frosted Flakes, etc.) advertised on TV more than brands not advertised.	1	2	3	4	5	6	7

Appendix F: Need to Evaluate and Understand Media Questions

		Strongly Agree	Agree	Somewhat Agree	Neither agree or disagree	Somewhat Disagree	Disagree	Strongly Disagree
20	I form opinions about most things I see, hear, and read in the media (TV, magazines, internet, radio, film, videogames etc.).	1	2	3	4	5	6	7
21	I think about why I like or dislike certain media messages.	1	2	3	4	5	6	7
22	I have more opinions about things I see in the media than other people I know.	1	2	3	4	5	6	7
23	I prefer not to think much about information I see on the internet or on television.	1	2	3	4	5	6	7
24	Usually, I only form opinions about things I see and hear in the media when I am asked.	1	2	3	4	5	6	7
25	I really enjoy creating media (animation, websites, advertisements, music, etc.).	1	2	3	4	5	6	7
26	I enjoy talking about different media I watch, see, hear or read with friends, and/or family.	1	2	3	4	5	6	7
27	I don't usually think about problems concerning the media.	1	2	3	4	5	6	7
28	Learning new ways to think about advertising doesn't excite me very much.	1	2	3	4	5	6	7
29	I enjoy learning about how and why certain programs, movies, advertisements, etc. were created.	1	2	3	4	5	6	7
30	I like being able to talk about media (television shows, movies, advertising, etc.) I enjoy at home in class.	1	2	3	4	5	6	7

Appendix G: Vocabulary Post-Test

Write the letter of the correct definition next to each vocabulary word.

1. _____ Media	A. a specific type of advertising used to promote healthy behaviors
2. _____ Persuasion	B. a specific group of people an advertisement intends to persuade or convince.
3. _____ Target Audience	C. the association of a product begin advertised with attractive people, places, sounds, and activities.
4. _____ Image Advertising	D. an advertisement's underlying message suggested through the use of symbols, characters, words, special effects, music…
5. _____ Bandwagon	E. shows a common experience; most people can relate to it.
6. _____ Slice of Life	F. "join the crowd, everybody's buying it so it must be good" persuasion approach
7. _____ Testimonial	G. associating a product with a famous person or authority
8. _____ Weasel	H. a message or promise is implied in the ad; words like ***virtually, usually, might***, and ***if you're lucky*** are used
9. _____ Point of View	I. the place from which, or way in which something is viewed or considered
10. _____ Public Service Announcement	J. the art of trying to convince someone else to do something or think a certain way
	K. various means of communicating which provide entertainment; e.g. TV, radio, books, magazines, movies, and newspapers
	L. makes the product seem better by using unpopular terms about the competition

Appendix H: Application Post Test

The four pages following this are advertisements labeled A, B, C, D. Use them to answer the following questions.

Write the letter of the correct answer in the space provided.

_____ 11. Which one is the Public Service Announcement?

A. Figure A
B. Figure B
C. Figure C
D. Figure D

_____ 12. Who is the target audience for Figure A?

A. Caucasian Women between the ages of 30-50
B. African American Women between the ages of 25-40
C. Teenage Girls
D. Caucasian Women ages between the ages of 65-75

_____ 13. What type of persuasion is used in Figure B?

A. Bandwagon
B. Fear Appeal
C. Testimonial
D. Plain folks

_____ 14. What type of persuasion is used in Figure C?

A. Bandwagon
B. Fear Appeal
C. Image
D. Plain folks

_____ 15. What type of persuasion is used in Figure D?

A. Bandwagon
B. Fear Appeal
C. Testimonial
D. Weasel

Appendix I: Affect Scales

How were you feeling while you watched the advertisement?

Circle the number that best describes how you felt while watching.

		NOT VERY						VERY
3a	Alert	1	2	3	4	5	6	7
3b	Happy	1	2	3	4	5	6	7
3c	Tense	1	2	3	4	5	6	7
3d	Suspicious	1	2	3	4	5	6	7
3e	Irritable	1	2	3	4	5	6	7
3f	Strong	1	2	3	4	5	6	7
3g	Active	1	2	3	4	5	6	7
3h	Creative	1	2	3	4	5	6	7
3i	Free	1	2	3	4	5	6	7
3j	Excited	1	2	3	4	5	6	7

Appendix J: Affect Questions

While watching the advertisement….

		Not at all			Some-what			Quite a bit			Very Much
3k	How well were you concentrating?	0	1	2	3	4	5	6	7	8	9
3l	Was it hard to concentrate?	0	1	2	3	4	5	6	7	8	9
3m	How confident were you?	0	1	2	3	4	5	6	7	8	9
3n	Were you in control of your actions?	0	1	2	3	4	5	6	7	8	9

Circle the number that best describes your feelings while you viewed the advertisement.

		Very Low				Somewhat					Very High
3p	How challenged were you while viewing?	0	1	2	3	4	5	6	7	8	9
3q	How low or high were your skills in viewing?	0	1	2	3	4	5	6	7	8	9
3r	Your wish to be doing something other than viewing	0	1	2	3	4	5	6	7	8	9

3s	Was anything at risk for you in viewing? Yes No
3t	Did you want to think about the advertisement? Yes No

Appendix K: Opinion of Cigarettes

What is your opinion about cigarettes? Place a  on the line.

For example: This means I think cigarettes are "somewhat cool".

Cool :___ :___ :___ :___ :___ :___ :___ Uncool

For example: This means I think cigarettes are "very popular".

Popular :___ :___ :___ :___ :___ :___ :____ Unpopular

Cigarettes are:

Good :___ :___ :___ :___ :___ :___ :___ Bad

Resistible :___ :___ :___ :___ :___ :___ :___ Irresistible

Cool :___ :___ :___ :___ :___ :___ :___ Uncool

Boring :___ :___ :___ :___ :___ :___ :___ Interesting

Dirty :___ :___ :___ :___ :___ :___ :___ Clean

Stylish :___ :___ :___ :___ :___ :___ :___ Unstylish

Relaxing :___ :___ :___ :___ :___ :___ :___ Non-relaxing

Distasteful:___ :___ :___ :___ :___ :___ :___ Tasteful

Smooth :___ :___ :___ :___ :___ :___ :___ Rough

Sweet :___ :___ :___ :___ :___ :___ :___ Sour

Nice :___ :___ :___ :___ :___ :___ :___ Awful

Appendix L: Attitudes toward Smoking and Behavioral Intention

		Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
4	I believe smoking is bad.	SD	D	N	A	SA
5	I believe smoking occasionally at parties is OK.	SD	D	N	A	SA
6	I believe staying away from smoking is good.	SD	D	N	A	SA

		Very Unlikely	**Unlikely**	**Neither**	**Likely**	**Very Likely**
1	How likely are you to smoke?	VU	U	N	L	VL
2	How likely are you to smoke at parties?	VU	U	N	L	VL
3	How likely are you to stay away from smoking?	VU	U	N	L	VL

Appendix M: Thought Listings

Television Commercial

Write down all of the thoughts you had while watching the commercial. Print your answers. Only write one thought per line. Fill in as many lines as you need. When time is up, go back and tell me if your thoughts are POSITIVE or NEGATIVE or NOT SURE. Circle P (positive), N (negative) or NS (not sure).

		Positive	Negative	Not Sure
1a		P	N	NS
2a		P	N	NS
3a		P	N	NS
4a		P	N	NS
5a		P	N	NS
6a		P	N	NS
7a		P	N	NS
8a		P	N	NS
9a		P	N	NS
10a		P	N	NS
11a		P	N	NS
12 a		P	N	NS
13a		P	N	NS
14a		P	N	NS

Appendix N: New Jersey Language Arts Standard 3.5 for the 8th grade

The following indicators are used to help guide the selection of classroom activities and target specific critical thinking skill development opportunities (the italicized indicators will be used as part of this study to guide instruction and assessment in coordination with the goals of critical thinking and media literacy. It should be noted there is considerable overlap):

Constructing Meaning
1. 'Analyzing aspects of print and electronic texts that support the author's point of view, opinion or attitude';
2. Analyze the use of elements (e.g., setting plot, theme, characters) to understand media presentations, such as film, video, television, and theatrical productions.
3. Analyze and respond to visual and print messages (e.g. humor, irony, metaphor and recognize how words, sounds, and still or moving images are used in each medium to convey the intended messages
4. Compare and contrast how the various forms of media (e.g. newspapers, radio. television, internet news outlets) cover the same topic'

Visual and verbal messages
1. Analyze and compare the pros and cons of visual and verbal advertising
2. Evaluate various media messages for credibility';
3. Develop criteria/rubric to judge the effectives of visual and verbal presentations
4. Make inferences based upon the content of still images
5. Compare and contrast media sources, such as film and book versions of a story.

Living with media
1. Evaluate media forms, such as television, video, games, music, and film for content appropriateness (e.g., rating systems, rubric).
2. Analyze media content for emotional effect on audience
3. Create media presentations and written reports, using multi media resources such as an overhead projector, computer, and/or a tape recorder to communicate information

Appendix O: Overview of AnimAction Program

AnimAction, Inc.

Description:
AnimAction trains teachers of all disciplines to give young people the opportunity to experience the joys of collaboration and creativity through animation production. During the training teachers work with AnimAction to create lesson plans such that their students will be able to meet the challenge of producing their own 30-second animated Public Service Announcements and/or school presentations.

Since 1989, AnimAction has successfully demonstrated that this program is an effective media literacy and arts education tool. They have trained thousands of young people and teachers throughout the United States, Canada, Europe, Asia and Africa and won numerous awards. This is a unique program in that it enables its participants to respond to the particular needs of its community. AnimAction trains teachers to provide their students with a variety of methods for learning, understanding and expressing their unique ideas and talents. This animation program offers an exceptional opportunity for creative expression that engages students in a group process in which there are many ways to participate. There is a role for everyone, regardless of learning style or academic ability, as there is a need for a wide array of skill sets throughout the media production process. All students will gain expertise in researching, brainstorming, story development, writing, planning, group decision-making, organizing, developing timelines, character design, color design, drawing, storyboarding, timing, sequencing, computerizing images, post-production and presenting to the public. The final youth-produced animated product is visual with limited or no written language, enabling all youth to work together and share in the pride of project completion. According to a 1999 U.S. Secretary of Education White Paper, at-risk students are engaged best when they are challenged with a curriculum that emphasizes higher order thinking skills, authentic tasks and mixed-ability groupings. This definition aligns exactly with the AnimAction program.

Description of Plan and Components:
AnimAction has developed a successful Professional Development (PD) program, training teachers of all disciplines to work with their students in this hands-on experiential workshop environment in which students have the opportunity to produce their own animation. The program for youth incorporates a combination of media education, researching, critical thinking skills, teamwork and fun. During the training, teachers work with AnimAction animators to create lesson plans such that their students will be able to meet the challenge of creating their own animated short videos, usually only 30-seconds in length. The AnimAction process is a valuable tool that lends itself well to numerous curricula integration including "Open Court." English Language Arts, English as a Second Language, Arts, Communications, Science, Math, Health, and Social Studies all apply. Because of the medium's flexibility the focus could be a science-based classroom presentation or deal with global/cultural topics of concern. The most effective method AnimAction has found for anyone to fully comprehend animation is to engage in it oneself! Therefore each teacher will have the experience of completing an animated piece. A mobile animation studio, all materials and ample technical support are all provided during the PD workshops. By the end of the PD coupled with AnimAction's onsite classroom visits, teachers will feel confident enough to instruct their own students in animation production. The final youth-produced animations can be burned to DVD/CD-ROMs, broadcast, emailed, used for websites, and mass distribution.

Instructional Time with Students:
Per classroom, the curriculum can take up to 12-hours to implement. Each teacher may determine his/her own instructional schedule. As an example: 6 two-hour classes may be structured.

Professional Development for Teachers:

AnimAction trains 5 teachers for twelve hours, usually during two complete school days. Throughout the PD a mobile animation studio and all training materials are provided.
Additionally teachers receive:

- Easy to use PC Professional Animation Software for unlimited production use.
- A Comprehensive Instructional Video covering the basics of animation as well as the complete making of an animated short.
- Animation Lesson Plan Curriculum
- Teacher/Student Training Manuals
- A Compact Disc of 10 thirty-second sound cues
- Free Unlimited Technical Support
- A supply of tools/materials for 40 students that can produce 4 animated Public Service Announcements (PSAs).
- Animation Resource Guide featuring a list of websites, books, supplies, schools and organizations relating to animation and social action
- Ambassador Peer Leader Program and Social Action Curriculum providing guidelines for youth leaders to deliver their message and distribute their PSA
- A Catalog of Animation Accessories

Performances/Exhibitions/Events:
Youth-produced animated PSAs from AnimAction workshops have been shown all over the world on Network TV, in movie theaters, schools, hospitals, and on Web sites. The students' work created with the newly trained teachers may be screened in classrooms, assemblies, and on websites. Teachers may also coordinate screenings at national and international festivals and on local school district channels.

Collaborative Planning Time:
AnimAction schedules one orientation/planning meeting with key people in the school that typically lasts one hour.

Resources:
AnimAction provides all tools and materials during the PD. After the PD, AnimAction will advise the school how best to set-up the "Mobile Animation Studio." Each school will need 1 PC computer (minimum Pentium 3) with 512 MBR, a video camera and/or a scanner. Most school sites already possess such tools. AnimAction will give each school all the animation supplies, software and a camera stand to keep so that each site is set up for success at the end of their training. Additionally teachers enjoy Technical Assistance for 3 two-hour on-site classroom visits and unlimited Technical Assistance via email/phone.

Appendix P: Class work for Animation Timing

Timing Chart

Team Name_____

Team Members_____

Beat	Shot	Seconds
Title		3.0
01		
02		
03		
04		
05		
06		
07		
08		
Credits		3.0
	TOTAL	

Appendix Q: Class work for Timing Explanations and Drawings

Timing Explanation

Team Name_____

Beat	Timing Explanation	Thumbnail Sketches
1		
2		
3		
4		
5		
6		
7		
8		

Appendix R: Parental Consent Form

Media Literacy Education
Parental Consent form

Dear Parent or Guardian,

Your child is being asked to be a part of a study considering the effectiveness of a media education curriculum to develop critical thinking skills. The purpose of the research is to determine if students who participate in the program are better able and more motivated to critically analyze persuasive messages including advertisements.

Your child's participation in this project is completely voluntary. You may decline all together, or your child may leave any questions he or she doesn't wish to answer. There are no known risks to participation beyond those encountered in everyday life. Your child's responses will be confidential and data from this research will be reported only in the aggregate. No one other than the researcher will know individual answers to the questions. However, she will not be able to link individual responses to individual students.

If you agree to participate in this project, your child may receive instruction during language arts class in "Viewing and Media Literacy" (New Jersey's Core Curriculum Language Arts Content Standard 3.5). Students participating in the curriculum will receive 15 days of instruction in media education during language arts class. Assessment of student learning will take approximately three class periods to complete (25 minutes per day) and will be administered during class.

If you have any questions about this project, please feel free to contact Gina Serafin 973-838-0612. Gina is conducting this research in completion of Ph.D. requirements for Rutgers University's School of Communication. She is working with Susan Rappaport and Stuart Carroll in the creation and implementation of the curriculum as part of language arts class. Students who participate in the program may have the opportunity to create and produce their own 20 second public service announcements using animation.

Lazar Middle School Parent Consent Form

Please check below whether you grant permission, sign, and return this form to the teacher who distributed it within three days:

___ I ***give permission*** for my child.

___ I ***do not give permission*** for my child

Signature:_____ Date: _____

My child's name is:_____(Please Print)

Appendix S: Overview of Curriculum Dates

Calendar for Lazar Media Literacy Unit

September

Monday	Tuesday	Wednesday	Thursday	Friday
	6	7	8	9
12	**13** **LETTER TO GO HOME TO PARENTS**	**14**	**15**	**16**
19	20	21	22	23
26	27	28	29	30

October & November

Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**
3	4	5	6	7
10 Vocabulary Handed Out	11 Start Program	12 Day 2 No HW	13 NO CLASS	14 Day 3
17 Day 4	18 Day 5	19 Day 6	20 Day 7	21 Day 8
24 Day 9	25 Day 10	26 Day 11	27 Day 12	28 Day 13
31 Day 14 Editing	1 Day 15 Editing	2 Day 16 Editing	3 Day 17 Editing	4 Day 18 Editing
7 Day 19 POST TEST 25 MINUTES	8 Day 20 POSTTEST 25 MINUTES	9 Day 21 POSTTEST 25 MINUTES	10	11

Appendix T: Overview of Lazar Curriculum Activities

Lazar Overview

Date		Topic	
10/11	1	Overview of Media & Advertising Media Awareness	Show ads, walk through questions HW – watch ½ hr. program track/analyze commercials
10/12	2	Advertising vs. Public Service Announcements Target Audience & Branding	Purposes of Media HW – Advertising Jingles "Tag Lines"
10/14	3	Brainstorm Story Images & Language	Elements of Story / Target Audience HW - Write a 5 sentence story. Handout of Techniques
10/17	4	Select Story – in groups, what will easily lend itself to visual images? Advertising Tells A Story	Discuss story. Begin to identify the beats. Transfer the words into pictures. Set scene, introduce character(s), HW-write one-two sentences per beat
10/18	5	Shot Identification Techniques of Persuasion	Close-up, medium, long shot What does each beat "look" like (who/what is in it/where are they/what are they doing?
10/19	6	Develop Beats (no more than 8)	Write out what will happen in each beat Exposure Sheets- what happens when/for how long.
10/20	7	Thumbnail drawings for each beat	See storyboard for example
10/21	8	Develop Storyboard	Writing Story – Show examples (critical questions)
10/24	9	Develop Storyboard	Writing Story – Show examples (critical questions)
10/25	10	Trace story board	Drawing Animation
10/26	11	Draw	Tracing
10/27	12	Draw	Tracing
10/28	13	Draw	Tracing
10/31	14	Sequence drawings	Sequence
11/1	15	Sequence / Complete Drawings	Sequence
11/2	16	Complete Drawings	
11/3	17	Shoot Video	
11/4	18	Shoot Video	
11/7	19	Post-Test	30 minute period
11/8	20	Post-Test	30 minute period
11/9	21	Post-Test	30 minute period

Appendix U: Vocabulary Terms Taught during Curriculum Implementation

Vocabulary Words

Media: various means of communicating which provide information or entertainment; e.g. TV, radio, books, magazines, movies, newspapers

Medium: one kind of media

Entertain: to hold the interest of and give enjoyment to

Persuasion: (persuade) the art of trying to convince someone else to do something or think a certain way

Inform: to give facts; to teach and instruct

Public Service Announcement Advertisement: a specific type of advertising used to promote healthy attitudes and behaviors

Point of view: the place from which, or way in which, something is viewed or considered

Target audience: a specific group of people an advertisement intends to persuade or convince. Identified by age, gender, religion, economic status, etc.

Opinion: a point of view, judgment or feeling about something or someone

Symbolism: the representation of things by use in symbols

Symbol: something that stands for, suggests or represents another thing

Branding: A traditional advertising method used to create a response from a target audience. These ads are geared towards increased product or company name awareness and lifelong customers.

Metaphor: implied comparison between two unrelated things

Media Metaphor: blend words, images, and sound effects to suggest a shared meaning between two different things

Propaganda: persuasive ways pf sharing ideas and influencing behavior, most often by manipulating human desires and fears

Image Advertising: the association of a product being advertised with attractive people, places, sounds and activities

Plain folks: in advertising, the association of a product with people who appear to be average

Bandwagon: "join the crowd, everybody's buying it, so it must be good" persuasion approach in advertising

Slice of life technique: shows a common experience; most people can relate to it

Demonstration technique: shows how a product works; usually looks better than it is in reality

Testimonial technique: associating a product with a famous person or authority

Name Calling: makes the product seem better by using unpopular terms about the competition

Weasel technique: a message or promise is implied in the ad; words like "virtually", "usually", "might", "if you're lucky" are used

Fear appeal: Fear appeals play on a person's emotions in a negative manner

Myths: stories a society creates in order to bring order to conflicts and disorder in everyday life

Interactive experience: buildings, places, amusement parks intended to promote specific products

Lifestyle: way of life reflected in a person's attitude, possessions, and manner

Subtext: an underlying message. It is never stated directly. The message is implied or suggested through the use of symbols, characters, words, images, music or special effects.

Appendix V: Animation Vocabulary

Storyboard: look likes a comic-strip version of your film. This is the step of pre-production before animating your advertisement.

Thumb nail drawings: small, simple illustrations that give you the basic idea of what will be in each scene. They can be simple stick-drawings. (this is done before the storyboard)

MS – Medium shot: focus on more than one character

WS- Wide shot: shows the setting where action is taking place

OTS – Over the shoulder:

RxN- Reaction shot

Beat: individual scenes; one thumbnail sketch per scene or beat

Shot identification: visual representation of what will occur in a scene

Pencil Test: checking animation through the computer software to ensure consistency and flow

Continuity: making sure drawings match from frame to frame. Ex. If a character is wearing a tie in one drawing/scene he needs to have in later pictures.

FPS – Frames per second

Cycle: shortcut in reusing drawings the animate action.

TV Safe Area: are where drawings need to appear so they are not cut off when aired.

Appendix W: Daily Lessons & Activities

Daily Planning & Overview of Lazar Curriculum

PLEASE NOTE: CRITICAL VIEWING DRILLS - EVERY CLASS PERIOD WILL BEGIN WITH STUDENTS VIEWING (TV & PRINT) ADVERTISEMENTS. FOCUS WILL CHANGE DEPENDING ON THE STAGE OF THE PRODUCTION PROCESS.

Day 1: October 11, 2005

Objectives:
Students will list, define and discuss media including advertising. Identify types of media. Identify the purposes (persuade, entertain, persuade)of different types of media
Identify and discuss different media genres.

Summary: Students will learn about different types of media and their purposes. An emphasis will be placed on media content intended to persuade.

Ask students to define media (List different types on board)
What is the purpose of TV?
Media Content – Target Audience – What shows do you like to watch? Why?
Go over vocabulary words.
"Advertising Media Handout"

What are examples of media?

Students will identify and discuss media types & genres.

Initiate class discuss about different types of media. Discuss how media has changed over the years. Make a master list on the board. Identify different media sources (televisions, radio, internet, radio, newspapers, and magazines) and media content.

Ask students, "What is the purpose of television in today's society?" The primary purpose of television is to sell products. If programs do not have audiences to watch the shows, the shows are taken from the air. Advertisers pay money to place their products during certain programs. Program with larger audiences receive more money when advertising airtime is purchased. All other media (magazines, radio, newspapers, etc.) generate revenue through advertising- different products; brands, etc. are aired during different programs or in different kinds of magazines, radio stations, etc.

Now, consider media content, ask students to consider different types of programs they see on television (game shows, talk shows, reality shows, drama, sports, comedy, cartoons, etc.). Relate the concept of *genre* to books they may have read. List different genres board. In groups, ask students to identify different television programs for each category. List on the board. Ask students who with a show of hands to identify the type of shows they like best. Discuss the concept of target audience.

What is a target audience?

Students will identify and discuss target audience.

After students have formed a list of shows they like to watch, ask why they like the shows. Consider the type of genre, the story line, the characters, how the stories/characters/action relate to them as individuals and as a mass audience (Are there other people like them who watch too? What are characteristics of others who watch?). Discuss the issue of target audience. Certain programs appeal to different people because of age, gender, background, interests, etc.

Homework

What are we watching?

Homework:
Students will be required to track watch ½ hour of television in the evening and keep a log of the commercials they see. They will identify the program they were watching, the product, the number of ads per commercial break and who they think the target audience is for the ad. If possible, they should record the ½ program so that it is possible to go back and look at the ads again. See *Television Advertising Assignment.*

Appendix X: TV Viewing Homework

Television Advertising Assignment **Name:**

For this assignment, you need to watch ½ hour of television. You may choose the program. A show that you usually view is best. As you watch the program, you will need to pay more attention to the advertisements you see during commercial breaks. You may want to record the ½ hour program so that you can go back and view again. You'll be surprised at what you might miss. Use additional paper to complete the assignment. You may need to go back (after the commercial break is over) to answer each section. Remember: most commercials last 30 seconds (not a long enough time to fill out & watch).

Name of Television Program_____
Time_____
Station_____

	Type of Product	Brand	Think of 3 adjectives that describe the ad	Briefly describe the ad
1.				
2.				
3.				
4.				
5.				

Appendix Y: Day Two Learning Objectives

Day 2: October 12, 2005

Objectives:
Students will review and discuss advertisements (print and television) using techniques of persuasion.

POD – Jingles Activity (What are tag lines? How many do you know?

Review Homework Assignment- identify how many commercials, types of products, the shows watched, ease or difficulty of paying attention, any ads repeated, similarities among products, do the products relate to the program (if at all), who is the target audience – how do you know?

Advertising Techniques Handout- image advertising, bandwagon, testimonial, plain folks, name calling, weasel. Read and review with class. Show advertisements.

In groups, students will read chapter from Media Wizards—"Recognizing Advertising Subtexts"

> List different types on the board: slice of life technique, demonstration, testimonial, interactive experience.

In groups, students locate two different types of advertising techniques. They present their poster the class explains their assigned concept.

For homework, they locate two additional types of advertisements in newspapers, magazines or the Internet.

HW – None Holiday

Appendix Z: Warm-up Activity Day Two

POD (Day 2)

Jingles Activity *NAME*

Look at the following jingles or tag lines and see if you can guess the company who uses it. You'll be surprised by how many you know.

Be all you can be.	(US Army)
Good to the last drop!	(Maxwell House)
Got Milk?	(American Dairy Association)
Great taste... Less filling.	(Miller Brewing Company)
Have it your way.	(Burger King)
Imagination at work.	(General Electric Co.)
It's everywhere you want to be.	(Visa)
It takes a lickin' and keeps on tickin!	(Timex)
J*ust do it.*	(Nike)
Raising the bar.	(Cingular)
They're Gr-r-reat!	(Kellogg's Frosted Flakes)
Time to make the donuts.	(Dunkin Donuts)
We try harder.	(Avis)
When you care enough to send the very best.	(Hallmark)
Work hard. Fly right.	(Continental Airlines)
You can do it. We can help.	(Home Depot, Inc.)
Melts in your mouth, not in your hands.	(M&M's)
Sometimes you feel like a nut, sometimes you don't.	(Almond Joy/Mounds)
Where's the beef?	(Wendy's)
Can you hear me now?	(Verizon)

THINK OF THREE ADDITIONAL JINGLES

WHY DO ADVERTISERS USE JINGLES OR SLOGANS?

Appendix AA: Day Three & Four Learning Objectives

NO SCHOOL October 13, 2005

Day 3: October 14, 2005

Objectives: Students will understand advertising as a form of story telling.

HW: READING / LOCATE PRINT ADS–Media Wizards Chapter reading (identifies four different types of appeals). Students need to locate magazine advertisements that exemplify three different types of ads for homework.

Day 4: October 17, 2005- Monday

Objectives:
Students will categorize print advertising into target audience & type of persuasive techniques used to communicate. Students will do Shield Exercise.

POD- Identify how two of the advertisements they selected tell a story using STORY handout. They will fill it in.

Review homework concepts and 'advertisement as story' POD.

Handout Cigarette Advertisements to each group. Groups analyze print ads using the On Target Handout and Cigarette Advertising Claims Sheet.

Students analyze cigarette & brand/product advertisements identifying and discussing claims made by cigarette advertisers using STORY Handout. Look at cigarette ads as a form of story

Brain storm consequences of smoking.

Appendix BB: Class work, Understanding Advertising as Story

Advertising Story Element Chart

Product:_____

Target Audience:_____

Technique:_____

	AD 1	**AD 2**
Character: List the most important people in the advertisement (gender, age, ethnicity, and any other important characteristics)		
Setting: Where and when does the action take place?		
Conflict: Who or what is the problem?		
Solution: Who or what is the solution?		
Plot: List three events that happened (if a TV ad). Identify one event (if print).		
Theme: Write a sentence that states the theme.		
Logic: is there anything in the ad that doesn't make sense?		

Appendix CC: Target Audience Activities

On Target

We are not all interested in buying the same products. So advertisers aim their advertisements toward those people that might be interested in the product. Aiming advertisements at specific groups of people is called **targeting**. Do you think you can be persuaded by an advertisement that is targeting toward you?

When you watch TV, surf the Internet or read magazines, you can tell who the target audience is by looking at:
-The age of the characters
-The occupation of the characters
-The setting
-What the product promises to do
-The persuasion techniques used.

Directions: analyze the advertisements and complete the log below. Use the keys to identify the persuasion technique and the target audience.

Persuasion Technique	**Target Audience**
A- Image Advertising **B- Bandwagon** **C- Testimonial** **D- Plain Folks** **E- Name Calling** **F- Weasel** **G- Slice of Life**	**1-Children** **2-Teens** **3-Adults** **4-Senior Citizens** **5-Families** **6-Parents** **7- Other_____**

ADVERTISING LOG

Advertised Product	**Persuasion Technique**	**Target Audience**	**Were You Persuaded?**	**Are you in the target group?**

Appendix DD: Day 5 and Day 6 Learning Objectives

Day 5: October 18, 2005- Tuesday

Objectives: Identify the difference between a commercial advertisement and a Public Service Announcement.

POD- Critical Viewing Questions using ads handed to groups.

Identify the difference between a PSA and a commercial advertisement.

Show animation process using Box Video Students will review story development selection of video. In groups, students will decide on a story idea (and target audience) for their team's anti-Smoking public service announcement.

HW: WRITE. Students need to write a 5 sentence story explaining what might happen in their PSA as determined by their group work in class.

Day 6: October 19, 2005 - Wednesday

Objectives:
Students learn how to transform written story into pictorial representations by creating thumbnail sketches. Students identify beats (editing / cuts) within advertisements. Recognize how a change in scene establishes different meanings for the audience.

POD- Identify advertisements technique and how it tells a story. Show advertisements – look for editing of beats – count with class; identify how the story is told through editing choices.

In groups, students write a 5 sentence story about smoking that they will transfer into images. They will share their story with the class.

Student will begin to draw what each beat will look like. Show Box Video explaining story board/ beats development (how to transform the written story into visual images). Limit 8 beats per group (scene changes)

Show students advertisements and Box Video explaining thumb nailing purposes and how to.

Students create thumbnail drawings – (images that match the scene (changes) beats). Once completed, students will write 1-2 sentences to explain what will happen in each beat.

See simple story board handout.

HW – Students will each take home one thumb nail drawing and write sentences explaining what will happen in the scene.

Appendix EE: Day 7, Day 8 & Day 9 Learning Activities

Day 7: October 20, 2005- Thursday

Objectives:
Students will learn how to time their animation using an exposure sheet and a story board.

POD- Each team responds to critical viewing questions for print ads provided to each group. Show TV ads. Identify edits and relate to beats.

Review each of the thumbnail drawings with students. Teams story board their PSA's to ensure that it flows and is coherent. Show examples to rest of the class.

Day 8: October 21, 2005 Friday

Objectives:
Students will understand and identify edits in advertisements. Additionally, recognizing the purpose of each edit to tell the advertisement's story.

QUIZ Advertising #1

Students continue identification of story, beats and sequences.

NO HW

Day 9: October 24, 2005 Monday

Students will understand the role music plays in creating meaning for television advertisements.

In groups, student will write on large paper the following information:

Team Name
Target Audience
Theme – Title of PSA

Identify in writing what will happen in each beat/scene
Create the thumbnails to match or tape to poster to show class.

Present Copies of sequencing sheet.

Present this to the class.

HW: Each person in group responsible for 1-2 scenes in the storyboard. Draw the scene(s) on the story board form.

Appendix FF: Day 10 – Day 22 Learning Objectives & Activities

Day 10: October 25, 2005 Tuesday

In groups, students will be responsible for the story board drawings for each group. Decide who is responsible for eight storyboard drawing. These will be used for tracing. Discuss continuity.

Trace the storyboard using tracing paper.

HW: Trace your scene – six drawings- no color

Day 11: October 26, 2005 Wednesday

Drawing, tracing & creating animation

Using tracing paper, students begin to animate their storyboards and test drawings in class.

Day 12: October 27, 2005 Thursday

Drawing, tracing & creating animation

Day 13: October 28, 2005 Friday

Drawing, tracing & creating animation.

Day 14: October 31, 2005 Monday

SEQUENCE ANIMATION

Day 15: November 1, 2005 Tuesday

SEQUENCE ANIMATION

Day 17: November 2, 2005 (1/2 day)
COMPLETE ANIMATION – SHOOT VIDEO

Day 18: November 3, 2005 (1/2 day)
COMPLETE ANIMATION – SHOOT VIDEO

Day 19: November 4, 2005 (1/2 day)
COMPLTETE ANIMATION – SHOOT VIDEO

Day 20: November 7, 2005 (1/2 day)
POST TEST TV ADVERTISING

Day 21: November 8, 2005 (1/2 day)
POST TEST PRINT ADVERTISING

Day 22: November 9, 2005 (1/2 day)
POST TEST ATTITUDINAL

Appendix GG: Lesson on Deconstructing an Advertisement

Deconstructing An Advertisement

Step 1: Make Observations
Step 2: Determine the Purpose of the Ad
Step 3: Determine the assumptions the ad makes & the messages it sends
Step 4: Consider the Possible Consequences of the messages

Make Observations

1. Think of three adjectives that describe the ad.

2. Look at and evaluate its aesthetics (the technical aspects, actors and dialogue/langue):

A. WHO ARE THE MAIN CHARACTERS: Are there people in the ad? What gender is represented? What race? What do the people look like (old, young, stylish, etc.)? What are their facial expressions?

B. SETTING- Where does the action appear to take place? Outside/inside; house; beach, etc. How does the setting relate to the product or the target audience?

C. WHAT'S THE MORAL? What did you learn…was there a moral to the story (advertisement). Many times a problem is presented and the solution is the product. Identify the 'problem or conflict' in one sentence.

D. CAMERA ANGLES- Estimate the camera angle – was it far away or close up? Was it above eye level, from above or below the subject?

E. LIGHTING: Take note of the lighting used in the ad. Does is appear to be natural or artificial? Why/not? Are certain parts of the ad highlighted while others are not? If so, why do you think this is? Are there shadows? Is so, how big are they?

F. COLORS: What colors are used? Are they bright? Black and white? In contrast to each other? How does it make you feel? What mood do the colors reveal?

G. LANGUAGE: If the ad has text (words…also called copy) what does it look like? What kind of font is used? Is more than one font used? How big is the text? What color is it? Is there more than one color used? What does the text (the words) say? What does the large text/small text say?

Determine the Purpose of the Ad

Remember: the purpose of an advertisement is always to sell a product, brand, or idea.

What product is being sold?

Do you find the product appealing? Why or why not?

Who is the target audience for this product? Children, teens, adults, the elderly? How do you know?

What feelings or emotions is the ad trying to associate with the product? Did it work? Why or why not?

Determine the assumptions the ad makes & the messages it sends

Assumptions may not be contained in the ads themselves, but in the meanings that are produced from them

GENDER: What assumptions does the ad make about gender? Are these assumptions realistic? Why or why not? DO these assumptions reinforce or challenge stereotypes about gender?

RACE: What assumption does the ad makes about race? Are these assumptions realistic? Why or why not? Doe these assumptions reinforce or challenge stereotypes about race?

CLASS: What assumptions does the ad make about class (i.e. wealthy people are happy and trouble free, poor people are always looking for a handout) Are these assumptions realistic? Why or why not? Do these assumptions reinforce or challenge stereotypes about class?

Consider the possible consequences of the messages

What are some possible consequence of the advertisement (long and short term)?

Do the messages create unrealities expectations for people? Why or why not?

What values are encouraged glamorized or normalized?

Be a Smart Consumer

What are the strongest reasons to purchase the product?

What are the weakest reasons to purchase the product?

Appendix HH: Lesson on how to evaluate Advertisements

Make Observations

Technical presentation / aesthetics of the advertisement

WHO ARE THE MAIN CHARACTERS? WHAT ARE THE CHARACTERS DOING?

WHAT DO THE CHARACTERS LOOK LIKE?

WHAT IS THE SETTING?

WHAT'S THE MORAL OR PROBLEM?

CAMERA ANGLES

LIGHTING: COLORS: LANGUAGE:

Determine the Purpose of the Ad

Remember: the purpose of an advertisement is always to sell a product, brand, or idea.

What product is being sold? Do you find the product appealing? Why or why not?

Who is the target audience for this product?

What feelings or emotions is the ad trying to associate with the product?

Is the advertisement effective?

Determine the assumptions the ad makes & the messages it sends

Assumptions may not be contained in the ads themselves, but in the meanings that are produced from them

GENDER: RACE: CLASS:

Consider the possible consequences of the messages

What are some possible consequences of the advertisement (long and short term)?

Do the messages create unrealities expectations for people

Be a Smart Consumer

What are the strongest reasons to purchase the product?

What are the weakest reasons to purchase the product?

Appendix II: Storyboard Grids

Names_____

STORYBOARD....use as many or as few blocks to work out what will happen in your commercial... make sure your drawings go in order!

.	.	.
.	.	.
.	.	.

Appendix JJ: Developing the Public Service Announcement, Using language and pictures to tell a story.

Team name_____

Simple Storyboard.... on the left...Write what happened. O**n the right draw the picture or image**
_____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____
_____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____
_____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____

Appendix KK: Advertising Myth Lesson

Advertising Myths

Myths are the stories a society creates to help explain and deal with difficulties, conflicts and contradictions of every day life.

Mythical Elements:

1. An ad is a mini-story with characters, setting and plot.

2. Most stories in ads involve conflicts – one character against another or one set of social values again another.

3. Conflicts are resolved by the end of the ad, usually by applying or purchasing the product. The product often is the "hero" of the story.

Ads work because they create attitudes and reinforce values.

What type of values do advertisements promote? Let's look at specific advertisements.

Advertisement #1

_____
_____
_____
_____

Advertisement #2

_____
_____
_____
_____

Advertisement #3

_____
_____
_____
_____
_____

Appendix LL: Company Checklist

Company Checklist

Company Name _____

Student Names_____

ACTION	COMPLETED (CHECK WHEN DONE)	WHO IS RESPONSBILE
Identify the target audience for your PSA		B
Write 5-7 sentence story		B
Identify what the story will look like using thumbnail sketches		A
Identify how many beats you need to tell your story		Mrs. Rapp.
Create a title for the PSA		C
Create title for each beat		C
In writing, explain what happens in each beat		B
Identify timing for each beat using the Exposure Sheet		C
Identify how many drawings you may need for each beat		C
Create story board drawings – this depends on the number of beats		A
Using story boards as a guide, trace each beat		A, B, C
Check drawings for continuity “pencil test”		A
Color select parts of the traced drawings		A,B,C
Sequence drawings – keep all drawings in order		C
“Shoot” your public service announcement using software and drawings		ALL Responsible for assigned beat(s)
Add music to your PSA		teacher
Copy PSA’s to disk for you to take home		teacher

Appendix MM: Animation Roles and Responsibilities

Company Roles & Responsibilities

Company Name:_____

Identify two people for each category. Write your names on the appropriate lines.

A Two people who will draw the story boards for each beat. You will hand the storyboards in so that they can be photocopied.
-If you have 8 beats, you will have 8 story boards

_____

_____

B Two people who will write down and hand-in:
1) A 5-7 sentence explanation about what happens in your public service announcement.
2) Identify who in your company is responsible for each beat.
3) An explanation of what happens in each beat. See the example given in Timing out Your film

_____

_____

C Two people who will complete the following to be handed-in:
1) The title of each beat on the Exposure Sheet
2) The length and order of each beat on the Exposure Sheet
3) On a separate piece of paper, write down the estimated number of drawing for each beat
For 1 & 2 see the sample Exposure Sheet for how to complete

_____

_____

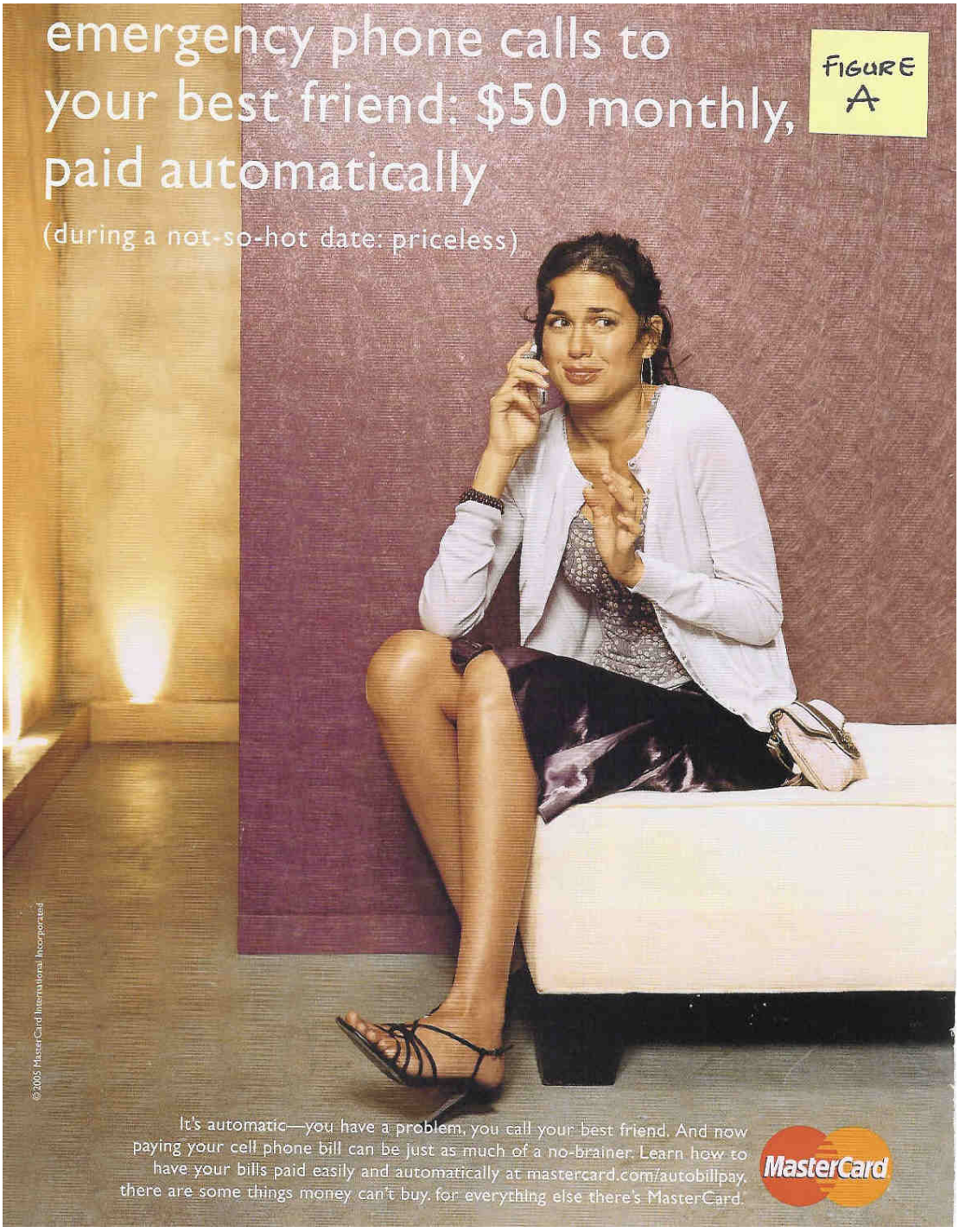
Remainder of Work for Animation

A **Continuity Checkers:** Responsible for looking at the details of each drawing for your entire Company done with the tracing paper. For example, you need to make sure characters are in the same locations, items are in the same place, odd marks are not seen on the drawings.

B **Overall Organization:** You are responsible for: 1) identifying what drawings may be missing or may be needed for the beat to "read" and 2) completing the "check list". If something was not completed, you need to tell your group and finish it.

C **Sequencing Checkers:** Responsible for identifying the order of the drawings and to make sure they are organized in groups (ABCD) so that they can be captured into the computer in the right order.

Appendix NN: Post-Test Print Advertisements



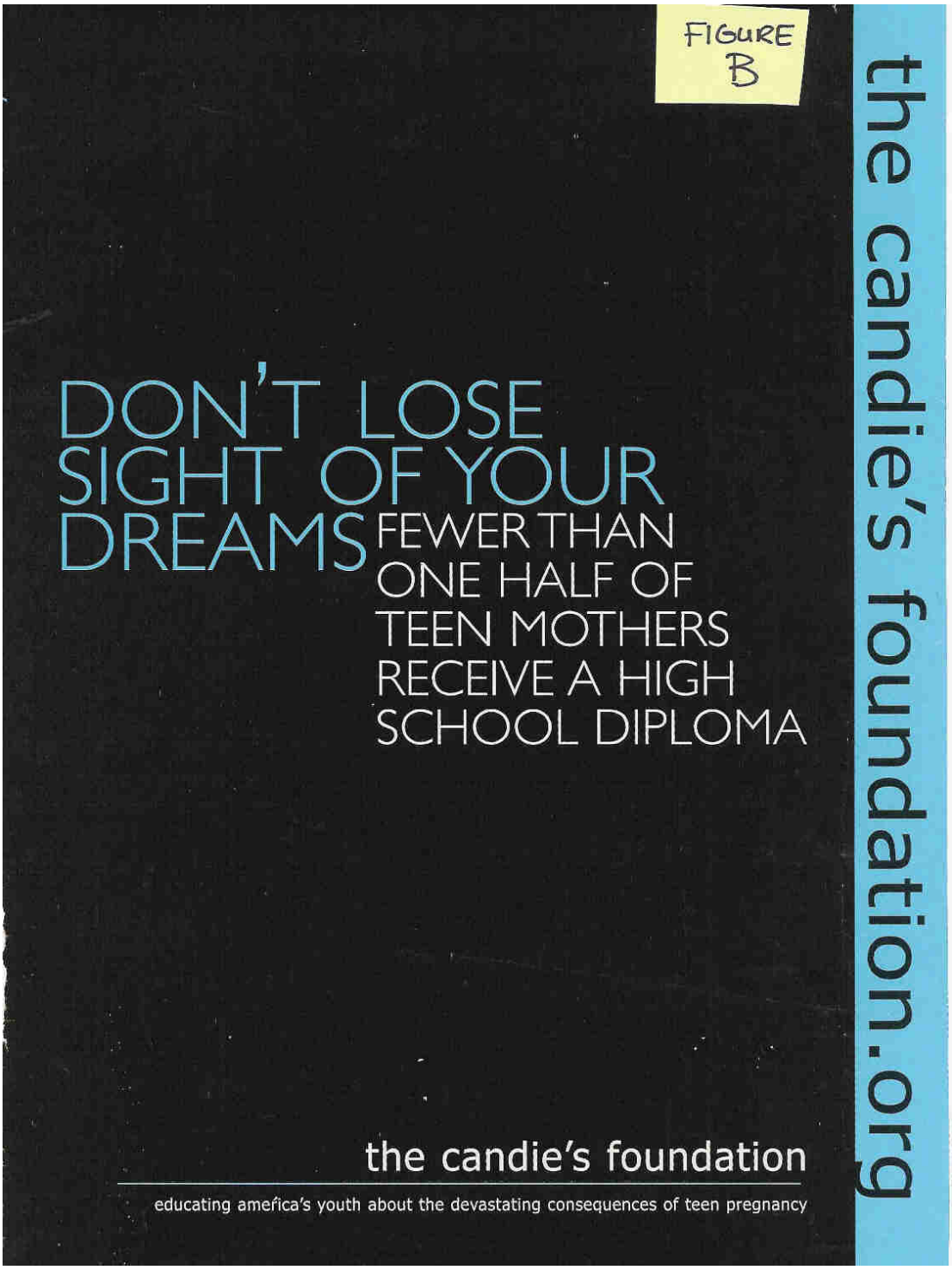


FIGURE B
DON'T LOSE SIGHT OF YOUR DREAMS
FEWER THAN ONE HALF OF TEEN MOTHERS RECEIVE A HIGH SCHOOL DIPLOMA
the candie's foundation
educating america's youth about the devastating consequences of teen pregnancy
the candie's foundation.org

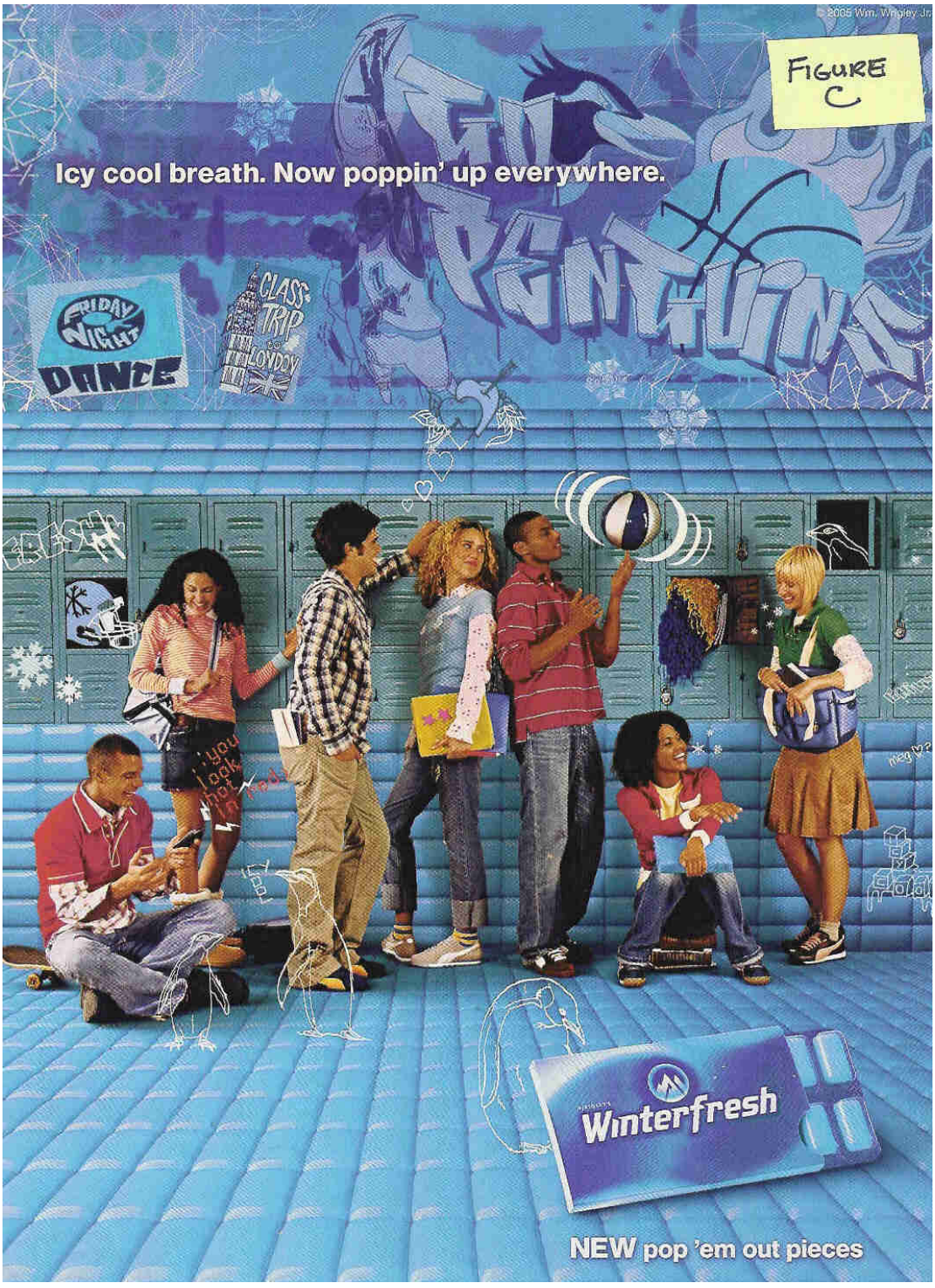


FIGURE C
Icy cool breath. Now poppin' up everywhere.
FRIDAY NIGHT DANCE
CLASS TRIP
Winterfresh
NEW pop 'em out pieces

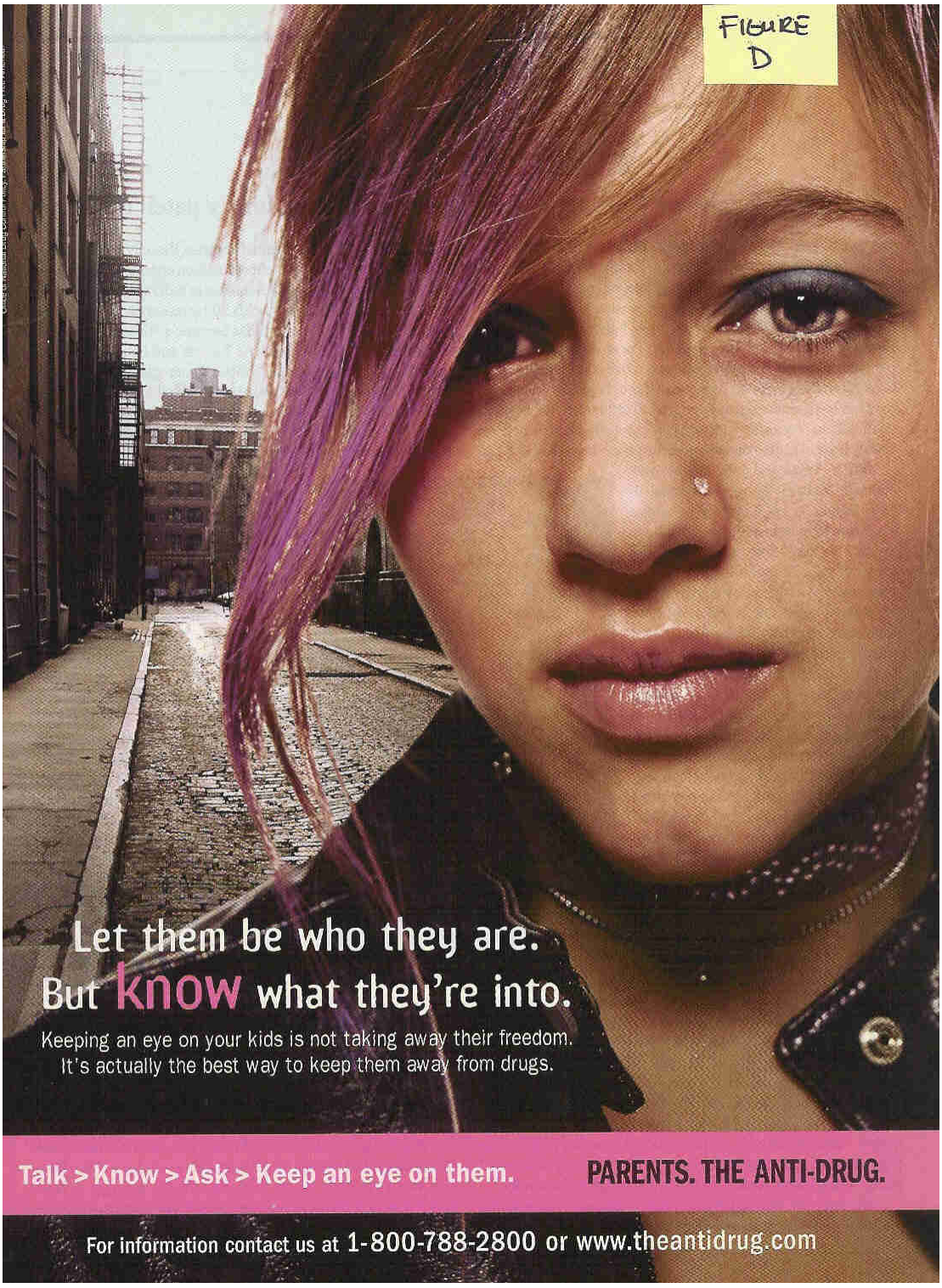


FIGURE D
Let them be who they are.
But know what they're into.
Keeping an eye on your kids is not taking away their freedom.
It's actually the best way to keep them away from drugs.
Talk > Know > Ask > Keep an eye on them.
PARENTS. THE ANTI-DRUG.
For information contact us at 1-800-788-2800 or www.theantidrug.com

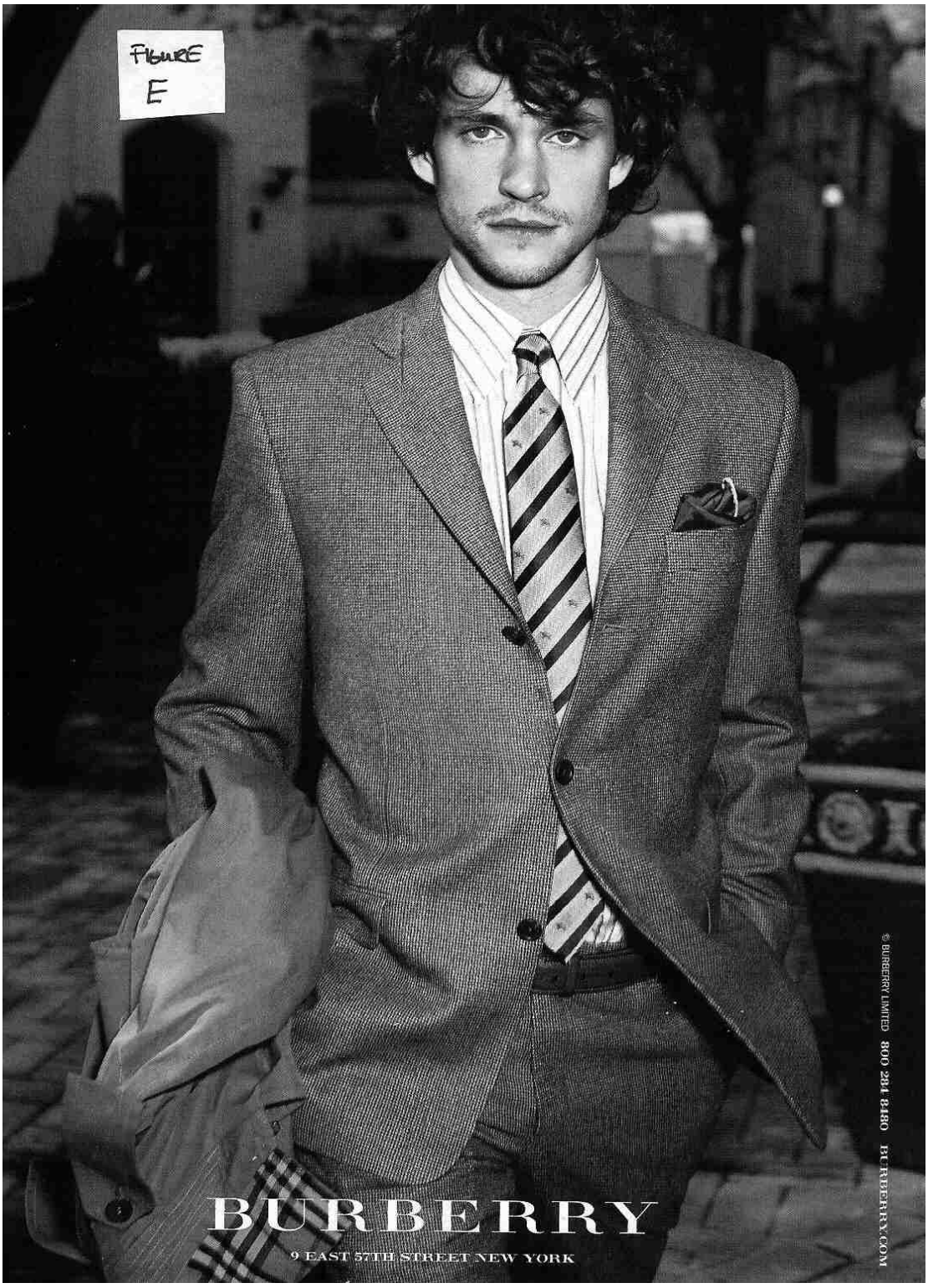


FIGURE
E
BURBERRY
9 EAST 57TH STREET NEW YORK
© BURBERRY LIMITED 800 284 8480 BURBERRY.COM

CURRICULUM VITA

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POSITIONS HELD

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PUBLICATIONS

Serafin, G. (2006). Media Mindfulness. In D. Macedo, & S. Steinberg (Eds.), Handbook of Critical Media Literacy. New York: Peter Lang Publishing.

Serafin, G. & Kubey, R. (2003). The importance of media literacy curriculum assessment in substance abuse prevention: an overview. In R. Hobbs (2003). The Media Straight Up! [CD-ROM and Curriculum]. Harrisburg, PA: Drug Free Pennsylvania.

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