THE ROLE OF MEDIA LITERACY AND PRO-HEALTH ENTERTAINMENT PROGRAMS IN CHANGING ADOLESCENTS' PERCEPTIONS OF ALCOHOL AND ALCOHOL ADVERTISING

By

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A dissertation submitted in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

WASHINGTON STATE UNIVERSITY
Edward R. Murrow College of Communication

AUGUST 2008

To the Faculty of Washington State University:

The members of the Committee appointed to examine the dissertation of YI-CHUN CHEN find it satisfactory and recommend that it be accepted.

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Abstract

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August 2008

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With an increasing attention to entertainment-education in its applicability to health promotion in the U.S., children educated in more than two decades of media literacy movements might have a seemingly different perspective toward the media. One burning question of whether we should teach children and adolescents to critically examine media messages and forgo the potentially artistic or educational values of the media needs to be addressed. With a mixture of positive and negative alcohol messages in the media, can media literacy and pro-health entertainment work together in the context of alcohol prevention education?

Experiment 1 examined the implications of a critical and a balanced approach to media literacy and found that adolescent boys and girls had different degrees of receptiveness to the instructional perspectives. A critical media literacy lesson made adolescent boys think characters on television as less realistic and believe that drinking alcohol had negative consequences. Adolescent girls benefited from a balanced evaluative approach as their media skepticism attitude was enhanced.

Evaluative approaches also impacted adolescents' interpretations of pro-health entertainment programs. Adolescent boys continuously gained the most from a critical

perspective as they trusted the alcohol misuse consequences depicted in the shows and in fact had a heightened level of media skepticism, which was not immediately observable after receiving the media education. The balanced media evaluative approach helped adolescent girls' think twice about the media as they still had a significant level of media skepticism. Experiment 2, employing a simplified media education that only focused on television programs, found that a positive evaluative approach to media literacy increased adolescents' media skepticism and it also had crucial influences on other key decision-making process.

Overall, different evaluative approaches to media literacy were found to have varying degree of *effectiveness* and *ineffectiveness* on adolescent boys' and girls' interpretation of alcohol and pro-health entertainment programs. Media literacy advocates are challenged to explore what defines media literacy. Systematic evaluations of media literacy concerning adolescents' sex, learning styles, and cognitive needs should be provided to enhance our understanding of the implications media education has on adolescents' health decision-making with regard to alcohol.

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CHAPTER ONE

INTRODUCTION

Children and adolescents are bombarded with inaccurate portrayals of alcohol use in the media, especially those with attractive appeals and glamorized depictions of alcohol use. Their awareness of and susceptibility to the influences of alcohol advertising at an early age have concerned public health officials, school administrators, parents and teachers. Health education advocates have employed a wide array of educational strategies, such as media literacy, to help children and adolescents discern media messages in an attempt to counter the negative impact media might have on them.

Media Literacy: An Agent for Mitigating Negative Media Influences

Educating children about media influences should start as early as possible. Along with the U.S. Department of Education, a growing amount of media literacy advocates have endorsed early media literacy education to introduce critical viewing skills to youngsters (Brown, 2006). The overarching goal of media literacy is to help youngsters learn the purpose behind each media message and to teach them how to evaluate the media with a critical eye. In particular, media literacy often is used to strengthen the logic-based information processing to debunk the unrealistic aspect of advertising through the introduction of critical viewing skills analyzing media images while downplaying the affect-based information processing.

The field of U.S. media literacy is still in its infancy. Not only do inconsistent definitions of media literacy exist, theory has rarely been incorporated in the design and empirical evaluation processes of media literacy programs (Bazalgette, 1991; Piette & Giroux, 2001). In addition, current U.S. media education program development primarily

uses media messages as negative examples of teaching youngsters the behaviors *not* to model. Media literacy curricula have yet to incorporate discussions about media as positive role models for pro-social, pro-health behaviors. To date, the inclusion of pro-social, pro-health media messages as supplemental materials in media literacy curricula is rare.

Entertainment-Education: An Agent for Positive Social Changes

Unlike the critical approach media literacy educators traditionally have taken about the media (e.g., Buckingham, 2001; Hobbs, 2007; Jhally, 1989; Thoman & Jolls, 2005), the advocates of entertainment-education, which is defined as the entertainment programming *purposefully* designed to educate the public, encourage the use of entertainment media to deliver persuasive narratives in an effort to promote positive behavior change. Entertainment-education has received overwhelming success internationally, particularly in countries where only a handful of media channels are available (Singhal, Cody, Rogers, & Sabido, 2004). On the contrary, the U.S. media environment provides much resistance in implementing entertainment-education because of the insurmountable pressure for the entertainment industry to produce financially sustainable entertainment programs. As a result, U.S. entertainment-education advocates have transitioned from using entire entertainment programs for education to embedding positive messages in popular entertainment programs in the hope of achieving similar attitudinal and behavior change results found in international entertainment-education. In contrast to the lack of theory in its development and design commonly found in the field of media literacy, entertainment-education has long been incorporated as part of health campaigns with empirical evaluations based on decision-making theories. Yet, its tested

effectiveness has been largely confined to a non-media-saturated world (Singhal et al., 2004; Sherry, 2002).

Media Literacy and Pro-Health Entertainment: Can They Work Together?

Scholars have advocated using *either* media literacy *or* entertainment-education to promote positive health behavior change (e.g., Brown, 2006). No research has suggested using both approaches *simultaneously* in health education curricula. This is due, perhaps, to two seemingly contradictory views about media. It is likely that individuals exposed to either one of the health promotion strategies would perceive media differently. For example, given that media literacy has become popular in K-12 education system, children who have exposed to critical viewing trainings might have different perceptions of entertainment programs containing positive, pro-health messages. Specifically, with media literacy aiming at developing media awareness skills and primarily using media messages, such as pro-product advertisements, as examples of media exploitation, it is uncertain as to how individuals who are media literate interpret entertainment programs with a clear educational purpose. Therefore, the present research addressed: What type of media education do we need in a media saturated society? Can media literacy and pro-health entertainment programs work together? Specifically, will media literacy lesson-recipients' heightened skepticism toward the media hinder their view toward the media, particularly the one toward the pro-health entertainment programs?

Given that media literacy and pro-health entertainment programs have not been examined simultaneously in an experimental setting, a pretest-posttest quasi-experimental design with a control group was employed to assess adolescents' views toward alcohol and pro-health entertainment programs depicting alcohol misuse consequences. The

primary research objectives of this study were: a) to evaluate the effectiveness of media literacy and health-focused entertainment television programs on participants' perceptions of alcohol misuse depicted in the media using the theoretical rationales addressed in the Message Interpretation Process Model (e.g., Austin and associates, 2002, 2005); b) to examine the effectiveness of different media literacy strategies (critical evaluations about the media vs. balanced evaluations about the media that examine media both positively and critically) on youngsters' attitudes toward alcohol use portrayed in the media; c) to investigate whether different media literacy lessons interfere with youngsters' decision-making process of pro-health entertainment programs with negative alcohol misuse portrayals.

To accomplish the three proposed objectives, students in 15 classes from four rural middle and high schools located in Eastern Washington received a randomly selected media literacy lesson and watched a randomly selected entertainment program about alcohol misuse consequences. Their attitudes toward the media and alcohol were measured prior to and after the media literacy lessons and were assessed again after watching the entertainment programs. Feedback gathered from the experiment could help shed some light on what type of media education adolescents need in a U.S. media environment with a mixture of harmful and beneficial health messages.

CHAPTER TWO

LITERATURE REVIEW

Alcohol Misuse among Youngsters

Underage drinking always has been part of the public health challenge. It is estimated that approximately 50 percent of adolescents have had at least one drink before they reach the eighth grade and over 20 percent of them have reportedly gotten drunk (Johnston, O'Malley, & Bachman, 2003). At least 30 percent of 12th graders said that they have had at least more than five drinks in one setting during the past two weeks (Johnston, O'Malley, & Bachman, 2002).

Adolescent boys and girls have similar rates of alcohol use, particularly for those between 12- to 17-year-olds. According to a 1998 survey, approximately one-third of adolescent girls have experienced alcohol. Close to one-fifth of adolescent girls reportedly had used alcohol a month prior to the survey date (SAMHSA, 1999). Among the adolescent girls surveyed, white non-Hispanic girls had the greatest amount of alcohol use in comparison to black girls and Hispanic girls. In fact, black girls had the lowest levels of alcohol use (SAMHSA, 1999).

Adolescent boys started to increase their alcohol use beginning at 10th grade (O'Malley, Johnston, & Bachman, 1998). In particular, white and Hispanic adolescent boys were significantly more likely than black adolescent boys to experience alcohol a month prior to the survey date and to get drunk in the last month (O'Malley et al., 1998). Taken together, black youths have the lowest rates of alcohol use in comparison to adolescents of other ethnicities.

Underage drinking has associated with various psychological and social consequences, including drunk-driving accidents, decreases in short-term memory skills, and failure at school (Brown, Tapert, Granholm & Delis, 2000; Spear, 2002). In fact, among youth ages 15 to 20, motor vehicle crashes are the leading cause of death among them (National Highway Traffic Safety Administration, 2001). It was estimated that one teenager is killed every 60 minutes in automobile accidents (National Highway Traffic Safety Administration, 2001). Furthermore, alcohol abuse during adolescence has increase the likelihood of future alcohol dependence. Adolescents who have tried alcohol before age 15 are four times more likely to become alcohol dependent than those who have their first drink at age 20 or older (Grant & Dawson, 1997).

Media Use among Adolescent Boys and Girls

Scholars have systematically documented adolescent boys' and girls' preferences of media use (Roberts & Foehr, 2004; Roberts, Foehr, & Rideout, 2005). Gender and gender-role socialization influence the ways in which adolescent boys and girls consume all spectrum of media, including television programs, magazine use, and music genres (Hust & Brown, 2008). Indeed, media selections have become a very gender-specific activity for both adolescent boys and girls (for review, see Hust & Brown, 2008). Adolescents' choice of television content, for example, greatly varies by gender. Adolescent girls have long preferred television content that is child- and family-oriented, whereas adolescent boys consistently favor action-oriented television content. Adolescent boys and girls have little in common when it comes to choosing television programs (Roberts & Foehr, 2004; Roberts et al., 2005).

This trend of media preferences continuously extends to adolescent boys' and girls' selection of magazines and music. In fact, magazine reading is the most gender-specific media use activity among adolescents (Acuff & Reiher, 1997). Consistent with adolescents' preferences of television programs, adolescent boys enjoy reading sports magazines (e.g., *ESPN*), whereas adolescent girls prefer beauty and fashion to sports and video games. As for the music selections, adolescent boys highly enjoy rap and hip-hop music, the genres infrequently consumed by adolescent girls who prefer soft, ballad-like music (Pardun, Brown, & L'Engle, 2005).

Effects of Alcohol Advertising on Children and Adolescents

Media have become a consistent source of worry for parents and concerned educators alike who fear that media's misrepresentation of alcohol lead vulnerable children and adolescents to their attempt to experiment alcohol. Youngsters are essentially the prime targets of alcohol advertising (Austin & Hust, 2005) that uses attractive characters, colors, positive attributes, and atmospheres to attract youngsters' attention (e.g., Grube & Wallack, 1994; Strickland & Finn, 1984; Strickland, Finn, & Lambert, 1982; Wallack, Grube, Madden & Breed, 1990). Unfortunately, alcohol use and characters involved in advertising are often glamorized and unrealistic.

To some extent, media could have significant impacts on children's and adolescents' early initiation of alcohol use. For example, exposure to alcohol advertising has been linked to children's intention to drink as adults (e.g., Snyder, Milici, Slater, Sun & Strizhakova, 2006). Other scholars have further argued that youngsters' awareness and liking of alcohol adverting have had a greater impact on their drinking intentions as well as their actual consumption of alcohol (Grube, 1993; Grube & Waiters, 2005; Grube &

Wallack, 1994; Slater, Rouner, Domenech-Rodriguez, Beauvais, Murphy, & van Leuven, 1997).

The effects of alcohol advertising greatly depend upon youngsters' interpretations of alcohol messages. Instead of looking into the effects of mere media exposure on behavior and asserting that the advertising content inevitably affects children's and adolescents' alcohol-related decisions, some scholars have urged for a closer examination of how youngsters' interpretations of alcohol advertising affect their alcohol drinking tendency (Austin, Chen, & Grube, 2006; Grube, Chen, Madden & Morgan, 1995; Grube & Wallack, 1994). Indeed, the ways in which children and adolescents interpret advertising messages deserve much attention (Austin et al., 2006; Grube, 1993; Grube & Waiters, 2005; Grube & Wallack, 1994; NIAAA, 1995; Snyder et al., 2006). Qualitative research demonstrated that adolescents are particularly involved in beer advertising narratives containing humor appeals and interesting storylines (Andsager, Austin & Pinkleton, 2001; Chen, Grube, Bersamin, Waiters, & Keefe, 2005). Even with unrealistic appeals in alcohol commercials, young adolescents also expressed that the commercials they watched are often enjoyable and entertaining (Andsager et al., 2001). Overall, elements in alcohol advertising particularly attractive to youth influence children's and adolescents' liking of the products and increase perceived attractiveness of alcohol advertising, which in turn heighten positive expectancies associated with alcohol drinking and further links to alcohol use intention (Austin et al., 2006).

Gender and related gender-role socialization process also affect the ways in which adolescents interpret alcohol messages (Andsager et al., 2002; Slater et al., 1997). For example, in a study examining male and female adolescents' perceptions of alcohol and

non-alcohol advertising embedded in a sport program, male adolescents predominantly favored the beer television commercials, whereas female adolescents reportedly disliked the alcohol advertising and favored the non-alcohol commercials (Slater et al., 1997). This comes as no surprise as male audiences are the primarily target of sports programming. In addition, gender-role socialization also impacts adolescents' liking of the advertisements (Andsager et al., 2002; Slater et al., 1997). Male adolescents prefer alcohol advertising depicting individualist values (e.g., independence and macho), whereas female adolescents generally favor collectivist messages commonly appearing in Public Service Announcements (Andsager et al., 2002).

Media Literacy: An Empowerment Education and Definitions

To counter the negative impact media have on children and adolescents, three distinctive approaches have been advocated to protect or to empower the innocent audiences from the overwhelming influences of the media: 1) advertising regulation; 2) pressuring advertisers and media professionals to create responsible messages; and 3) media education (Buckingham, 2001; Davis, 1993). The first two approaches are based on a protectionist model, arguing that the public is vulnerable and has no say in media content, whereas the last approach stems from an empowerment perspective aiming at evoking critical viewing skills by teaching the general public gimmicks and production techniques that the media industry uses (Buckingham, 2001). Media education has become an increasingly popular tool intended to empower individuals to make better decisions in a media-saturated world (Bazalgette, 1991; Brown, 2006; Hobbs, 2001; 2007; Piette & Giroux, 2001; Potter, 2004; Villani, 2001). In fact, media literacy

advocates see the last approach "media education" as a powerful force bringing changes within viewers.

While there is a common understanding of the importance of teaching children and adolescents about the media, the field lacks consistent agreement in what media literacy is truly about (Alliance for a Media Literacy America, 2007). Media literacy has been largely recognized as an interdisciplinary tool with influences from the academic fields of English language arts, education, sociology, communication, fine arts, film studies, and anthropology, among others (Hobbs, 1998, 2001; 2007; Hobbs & Frost, 2003). As Hobbs (2007) stated, the multidisciplinary nature of media literacy has diversified the field; she further claimed that "literacy educators no longer own the concept of literacy" (p.131). As a result of contributions from various fields, abundant definitions of media literacy exist.

Most commonly, scholars adopt the media literacy definition based on the 1992 Aspen Media Literacy Leadership Institute, which characterizes media literacy as the ability to access, analyze, evaluate, and create media in a variety of forms (Aufderheide, 1993; Austin, Pinkleton, Hust, & Cohen, 2005; Kubey, 2001; Pinkleton, Austin, Cohen, Miller, & Fitzgerald, 2007; Pinkleton, Austin, Cohen, & Chen, in press). Expanding on this definition, the Center for Media Literacy (2003) further purposed a more sophisticated definition of media literacy in the 21st century in response of technological advances:

> Media literacy is a 21st century approach to education. It provides a framework to access, analyze, evaluate, and create messages in a variety of forms—from print to video to the Internet. Media literacy builds an understanding of the role of

media in society as well as essential skills of inquiry and self-expression necessary for citizens of a democracy.

Potter (2005) also offered his definition of media literacy:

> Media literacy is a set of perspectives that we actively use to expose ourselves to the media to interpret the meaning of the messages we encounter. We build our perspectives from knowledge structures. To build our knowledge structures, we need tools and raw material. These tools are our skills. The raw material is information from the media and from the real world. Active use means that we are aware of the messages and are consciously interacting with them (p.22).

Based on the above definitions, strengthening viewers' knowledge about the media should help them understand the purpose behind each media message, which in turn should develop their analytical abilities to critically evaluate media messages. Individuals' knowledge about the media should empower them, making them less swayed by the advertisers or the media industry. An understanding of media production techniques also should help them design counter-media messages to voice their opinions. In addition to strengthening critical viewing skills, other media literacy advocates do not disvalue the entertainment nature of media messages. Brown (1991) and Luke (1995) stressed that media literacy should teach lesson-recipients the importance of reflecting on the pleasures derived from mass media and popular culture practices and should have the ability to choose selectively among popular culture icons (Brown, 1991; Luke, 1995).

Core concepts of media literacy have been defined to describe the merits of media literacy. The Center for Media Literacy has defined five core concepts to address media literacy education: a) all media messages are "constructed;" b) media messages are

constructed using a creative language with its own rules; c) different people experience the same media message differently; d) media have embedded values and points of view; e) most media messages are organized to gain profit and/or power (The Center for Media Literacy, 2005, p.7). Based on the work of Thoman and Jolls (2005), Hobbs (2007) also provided a slightly different version of the core concepts of media literacy: a) All media messages are constructed; b) Media use symbol system with codes and conventions to shape messages; c) Media messages have embedded values and points of view; d) Different people interpret the same media message differently; e) Most media messages are constructed to gain profit and/or power.

The core concepts recognize that media messages are symbols purposely designed and positioned to elicit certain meanings, values, and perceptions from viewers. Both versions of core concepts stress the importance of respecting individuals' different interpretations of media messages. Yet, the concept that "different people interpret the same media message differently" could impose challenges to scholars who wish to empirically verify the effectiveness of media literacy curricula on lesson-recipients. Particularly, the notion makes it rather difficult to standardize participants' responses to reflect the impact media literacy curricula have on them.

Indeed, some media literacy exponents oppose the use of "establishing a hierarchy of scientific methods based on competing accounts of social theory" in predicting how media literacy works and favor the idea of simply observing the learning progress, if any, that program participants exhibit (Hobbs, 2007, p.14). Ultimately, documenting lesson participants' learned critical viewing skill is more pivotal than systematically assessing the effectiveness of media literacy curricula (Hobbs, 2007). While others have

recognized the use of theory and large-scale evaluations of media literacy to establish the validity of its implication (Bazalgette, 1991), the disconnection in the field makes it relatively difficult to replicate the success of media literacy curricula.

Consequently, clear theoretical underpinnings in program design are sparse, making strong, valid media literacy program evaluations challenging. The interdisciplinary nature of media literacy, to some extent, inhibits the development of media literacy programs and evaluations. It is, therefore, difficult to systematically provide explanations of why and how some media literacy works. For example, some program evaluations simply focus on participants' ability to critically interpret media messages as well as their abilities to modify media messages to counter the mainstream media culture (e.g., Hobbs, 2007; Hobbs & Frost, 2003).

Others, however, have recognized the importance of evaluating media literacy yet the approaches to evaluations vary. Some have employed theoretical frameworks in assessing lesson-recipients' responses to media messages (e.g., Austin & Johnson, 1997a, 1997b; Austin, Chen, Pinkleton, & Quintero-Johnson, 2005; Austin et al., 2007; Pinkleton et al., in press), whereas others have primarily focused on outcome measures (e.g., knowledge gained after the media literacy lesson) without examining the underlying decision-making mechanisms that may lead to changes in behavior (e.g., Primack, Gold, Land & Fine, 2006). Given that knowledge often does not often lead to behavior changes (e.g., Ajzen & Fishbein, 1977), calling for the use of decision-making theories to predict why and how a media literacy program might or might not work is critical to the development of media literacy (Alliance for a Media Literacy America, 2007; Austin et al., 2005; Hobbs, 2003; Pinkleton et al., 2007). Because of a lack of theory in

systematically designing and evaluating media curricula, the field still is in need of answering why and how media literacy works, who needs media literacy more than others, and when to implement media education. These are the questions begging to be answered.

Despite various definitions and a strong resistance to using theory, media literacy curricula have been greatly dependent upon a critical approach to examining media messages. Indeed, media literacy curricula tend to direct participants' attention to the exploitative nature of certain media content and focus on teaching individuals to understand the purpose, intended target audiences, and the connoted meanings of media messages (The Center for Media Literacy, 2005; Pinkleton et al., 2007). An understanding of authorships, formats, target audiences, contents, and the underlying purposes of media messages is consistently emphasized in hopes that lesson-recipients can be more media literate and be more critical of the messages to which they are exposed (e.g., The Center for Media Literacy, 2005).

Thus, a person's ability to think critically about the media as well as the ability to produce messages that counter-argue the harmful effects of the media are important in a media-saturated world (Brown, 2006; Hobbs, 1998; Pinkleton et al., 2007), even though some scholars have downplayed the importance of participants' abilities to reproduce counter-messages (e.g., Lewis & Jhally, 1998). Lewis and Jhally (1998) explained that an individual's knowledge of media structure and its manipulative nature is more vital than their understanding of the production skills required in designing media messages.

With the primary emphasis of media literacy on reinforcing the critical viewing skills and on identifying negative media messages, there rarely is a program that teaches

individuals to verify or select "good" or "useful" information in the media. The discussions of positive media messages also are absent. In fact, Brown (1998) believes that "a positive, practical goal [for media literacy] is to develop selective viewers who seek out and appreciate distinctive high-quality programming and who develop a critical sense of form, format, and content in mass media" (p.47).

Theoretical Foundations of Media Literacy

Media literacy applied to the U.S. media education environment has taken two basic approaches: the "passive-audience perspective" or the "active-audience perspective," with the passive-audience perspective being the more popular of the two (Alvermann & Hagood, 2000; Piette & Giroux, 2001). The theoretical perspectives of the passive-audience perspective, such as direct stimulus-response, cultivation theory, and agenda setting, posit that media have a direct effect on the audience's response to media messages and are capable of modifying the audience's behavior, (Brown, 1998, 2001; Piette & Giroux, 2001). Media literacy that adopts the passive-audience perspective has extensively focused on teaching children and adolescents the amount of impact media have on them as well as techniques used to lure their attention.

On the other hand, the active-audience perspective, including uses and gratifications theory, dismisses a direct-effect model but emphasizes individuals as active constructors of meaning and their interpretations of media messages vary from individuals to individuals (Brown, 1998; Buckingham, 1991). Media literacy that adopts this approach often directs students' attention to their intrinsic motives for using the media and "helps students develop standards by which television use can be evaluated as a gratification for those motives" (Buckingham, 1991, p.13).

Although these two approaches view the role of message receivers differently, both emphasize the importance of developing critical thinking skills as message recipients are taught to identify visual symbol representations and meanings embedded in messages, to determine effects of the media, and to understand points of view presented in messages (Brown, 1991, 1998, 2001). In particular, a major goal of media literacy is to nurture active participants to engage in communication processes rather than being submissive recipients of media ideologies (Brown, 1998).

Besides these two main approaches, media literacy also has taken on critical cultural perspectives by discussing how various subjects, including cultural practices, gender, and power, are constructed in the media (e.g., Alvermann, Moon, & Hagood, 1999; Kellner, 1995; Piette & Giroux, 2001; Sholle & Denski, 1995). Rather than focus on the factual learning about the media, the perspectives eye toward a conversation of media in relation to maintaining power structure and hegemony in modern society (Stevens & Bean, 2007). Media messages, or texts, are the messenger delivering the ways in which dominance social ideology shape the public's social practices (Freebody & Luke, 1990).

Developing individuals' abilities to identify hidden agendas of dominant groups in its text and the ability to recognize that all texts have an ideological purpose are pivotal (Cervetti, Damico, & Pardeles, 2001). Applying the approaches to classroom teaching, students are engaged in discussing popular culture examples drawn from the media to explore questions of who was represented , who was not represented, what images of American society that the popular culture represents, and who benefited from the images (Alverman et al., 1999; Stevens & Bean, 2007). Specifically, the following questions can

serve as a foundation in critical literacy courses: A) Who/what is represented in the text? B) Who/what is absent or not represented? C) What is the author trying to accomplish with this text? D) For whom was this text written? E) Who stands to benefit/be hurt from this text? F) How is language used in specific ways to convey ideas in this text? G) How do other texts/authors represent this idea? G) How could this text be rewritten to convey a different idea/representation? (Stevens & Bean, 2007, p.11). Advocates of critical cultural perspectives also suggest that every media text is situated in certain historical, cultural, social, and political perspectives and urge text readers to fully take all of the contexts into account when examining messages (Stevens & Bean, 2007).

To date, topics of media literacy programs include, but are not limited to, general examinations of media messages, advertising messages, substance abuse messages (e.g., alcohol and tobacco advertising), body image issues, and violence and aggression (Austin & Johnson, 1997a, 1997b; Austin et al., 2005; Austin et al., 2006; Corder-Bolz, 1980; Hobbs, 2007; Hobbs & Frost, 2003; Irving & Berel, 2001; Pinkleton et al., 2007; Pinkleton et al., in press; Rapaczynski, Singer, & Singer, 1982; Singer, Zuckerman, & Singer, 1980; Nathanson & Cantor, 2000). The findings of media literacy program evaluations often vary as a result of different media literacy teaching styles and content. Details of the results will be discussed in the following session.

Media Literacy Teaching Styles and Content

There are great variations of *teaching styles* and *content* in the field of media literacy, both of which not only differ in the pedagogical perspective media literacy educators have taken but also reflect on lesson participants' cognitive abilities and decision-making process. To date, scholars have documented two basic teaching styles:

statement versus question-based methods and two fundamental content of media education: factual versus evaluative approaches. Media literacy teaching styles and program content substantially impact lesson-recipients' interpretations of the media and decision-making process of the instructed subjects. It is important to keep in mind that since empirical evaluations of media education programs are scarce, researchers need more research to further the discussions of the effects of teaching styles and content on children and adolescents.

As for the teaching styles in media literacy, a statement-based presentation is designed to simply present children what they need to know about the media without further complicating their limited cognitive ability (Collins, 1970; Collins, Wellman, Keniston, & Westby, 1978; Collins & Wiens, 1983; Hays & Kelly, 1984). It is the most suitable method in media education when younger children have no prior knowledge about the media. A statement-based presentation serves as a building block for younger children's knowledge base, whereas it can seem overly simplified for older children.

A question-based presentation is presented in such a way that makes children think about the purpose of media messages, including why media selectively use certain symbols to convey meanings. It is best employed in a situation in which children are familiar with the taught subjects. Also, older children are more responsive than younger children to this method as their abilities of retrieving knowledge they have already acquired help them better answer questions and engage in the question-and-answer conversations. The style is confusing to younger children, however, because no information can be drawn from the knowledge system (Nathanson & Yang, 2003). Applying the teaching style to media education, children as old as seven could benefit

from a question-based presentation as they know people on television are neither representative of people in the real world nor realistic. It can thus reinforce the information older children have acquired and change their attitudes toward the media. Empirical evidence has verified that younger children who had the statement-based presentation held a more negative attitude toward the violent television program than older children, whereas older children in the question-based presentation had fewer positive orientations toward the show than younger children (Nathanson & Yang, 2003).

Media literacy content also varies, often designed to address individuals' different logic- and affect-based decision-making process. Factual and evaluative approaches are the most commonly seen principles in guiding the content of media literacy. Designed to present advertising and media production techniques to demystify the glamorized appeals in media messages, factual approaches are intended to strengthen individuals' logic-based decision-making processes (e.g., distrust or skepticism) (Austin et al., 2005; Nathanson, 2004; Pinkleton et al., 2007). The majority of the media literacy program advocates believes that knowing the techniques advertisers use to get consumers' attention and understanding the ways in which visual effects distort the reality could successfully increase individuals' distrust toward advertisers and lessen their intention of purchasing the advertised products. In fact, factual approaches are the foundation of the majority of the empirically evaluated media literacy curricula (Austin et al., 2006; Austin et al., 2005; Austin & Johnson, 1997a; Austin & Johnson, 1997b; Nathanson, 2004; Nathanson & Yang, 2003; Rapaczynski et al., 1982; Singer et al., 1980).

The effects of factual approaches on participants' knowledge about the media greatly vary by the topics of the media literacy programs. When applied to general

television education, factual approaches successfully increased kindergarten through fifth-grade participants' knowledge about television production techniques (e.g., lighting, camera angles) and the ways media selectively construct reality (Christenson, 1992; Hobbs, 2007; Rapaczynski et al., 1982; Roberts, Christenson, Gibson, Mooser, & Goldberg, 1980; Singer et al., 1980). Health education based media literacy curricula also have taken advantages of factual approaches teaching children and adolescents the ways in which media misrepresent the actual consequences of smoking and alcohol abuse. They modified elementary school students' attitudes toward alcohol and strengthened their resistant to alcohol messages (Austin & Johnson, 1997b).

Unlike the success of other media education programs employing factual approaches, anti-violent media education seems to receive contradicting results. Neither young nor old children's responses to violent behavior were modified after receiving the lesson (Nathanson, 2004). Children became more attentive to characters in violent television shows and were more aggressive than children who did not receive any intervention (Doolittle, 1980; Huesmann, Eron, Klein, Brice & Fischer, 1983; Nathanson, 2004; Nathanson & Yang, 2003). They were more likely than those who did not receive the lesson to like the violent program and characters, to justify the violent behavior in the program, to engage in the show, and to have aggressive attitudes (Nathanson, 2004).

A few explanations can be offered to elucidate the inconsistent findings of factual approaches applied to different media education programs. First, the ways in which the research is conducted could be one of the primary factors influencing the effects of factual approaches. Quite often, general and health-specific media education curricula carefully incorporate media production techniques in a well-designed, implemented

teaching environment where students undergo multiple sessions of lessons. On the other hand, Nathanson and associates' experimental designs that embedded factual information in violent television clips may not be sufficient in changing children's responses. It is likely that younger children's limited cognitive development appears to hinder their information process as they can be easily overwhelmed by the amount of fact-based information concentrated within a short amount of time while watching a video clip. Children can simply be overloaded by too much information (Collins et al., 1978; Collins & Wiens, 1973), especially when they are asked to be reflective of the character's violent behavior while learning all of the media production techniques and information. It can be concluded that a fact-based, one-shot experimental study could not measure younger children's attitudes toward violent behaviors as they might be more receptive to media education spanned across a few class periods to fully grasp the concepts.

Second, the topics of media education could play a role in determining lesson-recipients' receptiveness to the program. Not only do older children (10-12-year-olds) have the knowledge structure enabling them to differentiate unrealistic behavior characters exhibit in violent television programs (Hawkins, 1977), their moral reasoning skills also tell them that violent behaviors are simply unacceptable and unforgiving (Kohlberg, 1984; Piaget, 1969). Hence, simply teaching older children (10-12-year-olds) media production techniques did not modify their responses to violent television (Nathanson, 2004; Nathanson & Yang, 2003). On the other hand, health-focused media education, such as alcohol use prevention, anti-tobacco media education, sex education, receive much celebratory success as the lesson elements not only address issues in which

adolescents are increasingly interested but also give lesson-recipients a skill necessary to deconstruct media messages to which older children are frequently exposed.

Given the mixed results of factual approaches, other scholars have examined whether evaluative approaches, which mainly target individuals' affect-based decision-making process, could modify children's and adolescents' responses to the media. Rather than emphasize factual information and television production techniques, evaluative approaches, such as positive and negative evaluations, focus on verbally commenting on television characters' actions or television programs in general (Nathanson, 2004). Positive evaluations praise television actors' actions, reinforce characters' behavior, and emphasize the positive appeal embodied by the characters and the programs. Conversely, negative evaluations use negative comments to highlight characters' undesirable, socially unacceptable behaviors and actions. At present, given that the primary objective of U.S. media education is to mitigate the negative impact media might have on children and adolescents, critiquing media messages with critical viewing skills is central to media literacy. Accordingly, negative evaluations receive much attention. Positive evaluations, however, have rarely been applied to media education because the current media literacy developments seldom introduce the positive aspects of the media to lesson-recipients (e.g., Nathanson, 2001).

Negative evaluations have been applied to studying children's changing perceptions of violent, stereotypes, and gender-stereotyped television programs (Corder-Bolz, 1980; Horton & Santogrossi, 1978; Mattern & Kindholm, 1985; Nathanson, 2004; Nathanson, Wilson, McGee & Sebastian, 2002; Voojis & van der Voort, 1993). Results suggest that lesson-recipients' age and their degree of exposure to media messages

greatly affect the success of negative mediation strategies. For example, in a study examining the impact negative evaluations have on children's perceptions of a violent television program, young children who watch more violent television programs seemed to benefit more from the approaches than those who watch less violent television programs and older children (Nathanson, 2004). Negative comments, such as "It is not right to hurt people," shield younger children from the harmful effect of violent television programs; that is, they disliked the program and became less involved in the show (Nathanson, 2004).

The effects of negative comments also are applicable to gender-role intervention (Nathanson et al., 2002). After receiving statements critiquing the gender-stereotyped portrayals, including "The show is wrong. Lots of girls do things besides paint their nails and put on make-up," young children (kindergarten to second-grade) favored non-conventional gender roles than those who did not receive any intervention; that is, they believed that girls could do things that boys could do. Older children's attitudes (4^{th}- to 6^{th}-grade) were not affected by the instructional approaches, however. Younger, heavy media viewers' responses toward the media were successfully modified by the negative evaluations (e.g., Nathanson, 2004). Their overall perceptions of violence and gender-stereotyped roles, for example, have drastically changed after receiving negative evaluations (Nathanson, 2004; Nathanson & Yang, 2003; Nathanson et al., 2002). Light viewers, on the other hand, were not receptive to negative evaluations as they already had little or less exposure and probably showed no interest, which made negative evaluations less effective. Results showed that negative mediation is most effective for younger,

heavy viewers, suggesting that media education should start as young as possible with a specific focus on heavy media users.

Older children were not receptive to negative evaluations (Nathanson, 2004; Nathanson et al., 2002; Nathanson & Yang, 2003). Yet, Nathanson and Cantor (2001) found that increasing children's fictional involvement with the victims, which urges children (preschool children to 6th graders) to think about how victims feel, successfully lowered boys' self-reported aggressive tendency but not girls'. The null effect of mediation strategy on girls is probably due to a floor effect of little aggressive tendency.

Moreover, factual approaches or a combination of factual and evaluative approaches seem to capture adolescents' attention in the context of advertising. Austin et al. (2006) found that 7th and 8th graders responded well to either a fact-based program (i.e. logic-only lesson) or a combination of factual and evaluative program (i.e. logic and emotion-added lesson). Either of the lessons made adolescents become more skeptical of advertising and advertisers' intention of manipulating consumers than those who did not receive any lesson. Mixed results of factual and evaluative approaches warrant more research to clarify why some approaches work better than others in modifying younger and older children's responses to the media.

An increasing number of health-focused media literacy programs have started to incorporate both factual and evaluative approaches in an effort to address logic- and affect-based decision-making process. The combination of skill development (e.g., strengthening critical thinking abilities and increasing skepticism toward advertisers' intention) and a motivational element (e.g., reinforcing the unwanted effects of engaging in unhealthy behavior, debunking the myths of glamorized media depictions, and

empower participants through enhancing their self-efficacy) address the overall decision-making process instead of focusing on either the logic- or the affect-based process. This type of program not only presents students media production skills but also teaches them to critically examine the attractive appeals embedded in pro-product advertising. The advocates believe that training children's and adolescents' critical viewing skills could help demystify the alluring appeals of advertising, which in turn empower them to resist the temptation of advertising messages.

Unlike the somewhat mixed results of either the logic-based or the affect-based media education, media literacy programs employing a combination of both approaches have been found to be effective in altering children's and adolescents' responses to advertising and in changing their health behaviors, such as alcohol drinking, smoking, and attitudes toward sexual health (Austin et al., 2005; Pinkleton et al., in press; Pinkleton et al., 2007). For example, third-graders who received media literacy training expressed that people in alcohol advertising were less realistic than previously thought and less attractive than those who did not receive the training, both of which led to a tapering desire to consume alcohol when they grow up (Austin & Johnson, 1997b). An extended evaluation of a similar media literacy lesson also supported the findings demonstrating that the training increased 3rd graders' understanding of alcohol advertisers' persuasive intent and lowered their perceived realism of alcohol advertising, attractiveness of the characters, and their intention to drink alcohol (Austin & Johnson, 1997a). Also, the result extended above and beyond a one-shot experimental setting. Three months after the intervention, the decrease of early decision-making processes, such as perceived realism and identification, persisted among the third-graders (Austin &

Johnson, 1997a). Thus, employing media literacy training in health *prevention* and *intervention* campaigns seems promising.

The results of a combination of approaches are applicable to adolescents as well. Adolescents became more efficacious in resisting peer pressure (Austin et al., 2005; Pinkleton et al., in press; Pinkleton et al., 2007). Research also suggests that lesson-participants' current health behaviors significantly impact the effectiveness of the health-based media literacy programs. For example, Pinkleton et al. (2007) found that a tobacco prevention media literacy lesson helped modify early stages of decision-making process among adolescents who have not tried tobacco, suggesting that the program successfully debunks the myths and the persuasive intent of tobacco advertising. On the other hands, adolescents who have tried tobacco had better resistant skills, understood the consequences of smoking, and lowered their desires to identify with the characters.

Training individuals' resistance against pro-product advertising appeals and strengthening the logic-based information process do not take away individuals' enjoyment of media messages. In fact, adolescents who reported a higher level of desirability toward alcohol advertising after receiving a media literacy training were still more efficacious than those who did not receive the training (Austin, Pinkleton, & Funabiki, 2007). Overall, promising results showed that media literacy curricula with the factual and evaluative approaches have successfully strengthened both children's and adolescents' logic-based thinking while not diminishing their enjoyment of media messages (Austin et al., 2005; Austin & Johnson, 1997a, 1997b; Austin et al., 2005).

To summarize, the effectiveness of media education programs on lesson-recipients' attitudes toward the media and their behavioral intention seems to depend

upon lesson-recipients' cognitive ability in processing the mediation strategies (e.g., younger or older children, adolescents), the frequency with which they are exposed to media messages (e.g., heavy or light violent television viewers), and current health behaviors (e.g., participants' alcohol drinking or tobacco smoking). Findings appear to suggest that media literacy should be designed with lesson-recipients' cognitive development in mind and should consider how their current media use and health behaviors influence their responses to media education. Specifically, to understand why and how media education impacts lesson-recipients' behavior, theory should be employed in the design and evaluation of media literacy programs. More research is needed to further address whether different teaching styles and media education content impact younger children's and adolescents' attitudes toward the media and their behavior.

Additionally, given the current focus of media education in the U.S., media messages are often used as examples of media exploitation and manipulations. If media literacy strengthens critical viewing skills, will media literacy interfere with lesson-recipients' decision-making process when they encounter media messages depicting pro-social and pro-health behaviors? Specifically, will participants' enhanced skepticism impede the intended effects of entertainment television shows designed with an educational purpose?

Entertainment-Education: *Key Force in Behavior Change*

Entertainment-education is defined as purposefully designed and implemented pro-social entertainment programs with an attempt to bring about awareness, to change social norms, to modify attitudes, and to facilitate behavioral changes toward a socially desirable manner (Sherry, 2002; Singhal & Rogers, 2002). With a goal of entertaining

and educating viewers, entertainment-education is not a theory but a communication strategy that can be used to address a series of health topics (Rogers, 2003), including family planning, population control, gender equality, educational issues, HIV/AIDS prevention, and immunization, among others (Singhal & Rogers, 2002). Through a variety of entertainment programs, such as radio soap operas, daytime soap operas, talk shows, music, animation films, and theatrical performances, entertainment-education programs use emotions, music and suspenseful plots to elicit the target audience's attention in hopes to change their behavior (Singhal et al., 2004; Singhal & Rogers, 2002).

The success of entertainment-education in bringing about the awareness of certain social issues lies in theories, which are used to guide the design and evaluation processes. Social cognitive theory and diffusion of innovation are among the most applied theories (Bandura, 2001, 2004; Singhal et al., 2004; Rogers, 2003). Social cognitive theory and diffusion of innovation document mechanisms through which individuals change their behavior (Bandura, 2001, 2004; Rogers, 2003). Social cognitive theory identifies underlying factors leading to individuals' behavior change, including self-efficacy, role modeling, consequences of behaviors exhibited through characters, and beliefs about normative behavior (Bandura, 2001, 2004). In particular, campaign designers take advantage of the fact that viewers learn through vicarious observations of characters depicted in the media. A variety of characters, including positive, negative, or transitional characters, are involved in programs to demonstrate things *ought* to do and things *not* to do (Bandura, 2004). Positive characters are portrayed as those who have already known the importance of maintaining and practicing pro-social behaviors,

whereas negative characters are those who repeatedly engage in risky behavior without learning from their past experience. Transitional characters, who are the most effective modeling mechanism in entertainment-education, offer a series of examples so viewers can learn the process through which they modify their behavior. Specifically, transitional characters are often involved in behaviors that come with negative consequences. They then are eventually rewarded through learning to modify or adopt positive behavior (Bandura, 2001, 2004). Bandura (2001) believes that these characters are pivotal in informing and educating viewers the important social issues. By drawing the audience's attention to socially desirable behaviors that are rewarded positively, viewers can be efficacious enough to adopt a new behavior through vicarious modeling (Papa, Singhal, Law, Pant, Sood, Rogers et al., 2000).

Not all viewers learn from positive or transitional characters, however. The unintended effect of negative characters, which is labeled as the "Archie Bunker" effect, is often observed in the evaluation of international entertainment-education research. Archie Bunker, a leading actor in the long-running CBS sitcom *All in the Family*, is a bigoted character who holds prejudicial attitudes toward minorities. Some viewers identified with Archie Bunker's discriminatory attitudes toward minorities and thought that his racial slurs were worthy of emulation. In some ways, negative characters, who should serve as examples of things *not-to-do*, could become role models for some (Singhal et al., 2004). The "Archie Bunker" effect is then used to exemplify the extent to which viewers identify with negative characters and are unable to learn from positive and transitional characters.

Diffusion of innovation, a theory that states the importance of interpersonal communication, has gained much momentum in entertainment-education evaluations (Rogers, 2003; Singhal et al., 2004). Diffusion of innovation defines diffusion as the process by which an innovation is communicated through certain channels over time among the members of a social system (Rogers, 2003). It posits that individuals' behavior change is often a result of target audiences' active conversation with their opinion leaders; that is, interpersonal communication is an important mechanism in facilitating behavior change. Specifically, an entertainment-education message is most effective when it is conveyed by credible opinion leaders through an interpersonal network.

Scholars also have provided other theoretical frameworks, including the elaboration likelihood model of persuasion (ELM), to explain the extent to which narratives and storylines in entertainment-education affect audiences' behavior. The ELM has been extensively studied in the context of persuasion with an emphasis on two information processing strategies: central processing and peripheral processing (Petty & Cacioppo, 1986). An individual is more attended to the message argument when using central processing. With issue involvement being a moderator, central route has the potential of producing lasting attitude change. An individual who heavily relies on central route processing often uses source credibility and numbers of sources as cues to process information. This type of information processing often produces short-term attitudinal change. Persuasive messages become less effective, however, when individuals generate counterarguments or become disengaged from the messages (Broke, 1967; Petty & Cacioppo, 1986; Slater, 1997).

A modified ELM called the extended ELM has been proposed by Slater and Rouner (2002) in an effort to address the extent to which persuasive narratives in entertainment-education affect audiences' perceptions of the shows and their behavior change. They argued that the central and peripheral routes of information processing are not distinctive when applied to entertainment-education. The antecedents of extended ELM, including story line appeal (e.g., romantic, action), quality of production (e.g., filming, writing), unobtrusiveness of persuasive subtext (e.g., the audience should not detect the obvious persuasive intention in entertainment programs), and homophily (e.g., the audience's perceived similarity with the characters), supersede both information processing and issue involvement posited in ELM. The antecedents share much resemblance with the MIP model, which also posits that individuals' perceived similarity with the characters is one of the early decision-making processes crucial to individuals' receptiveness to media messages (Austin & Knaus, 2000). In addition, prior research examining the effectiveness of alcohol advertising and Public Service Announcements employing the MIP model perspectives also found that perceived production quality significantly impacts perceived effectiveness of advertising (Andsager et al., 2001).

Both theoretical frameworks suggest that persuasive messages need to consider the impact the antecedents have on individuals' interpretations of media messages. Entertainment programs with persuasive narratives are more likely to attract viewers' attention and to elicit their emotional and cognitive investments. They discourage potential counterarguments because the persuasive information is delivered through the form of entertainment (Green & Brock, 2000). Identification with the characters and engagement in the storylines are the major mechanisms, making the audience's issue

involvement, which is an important factor in the ELM, irrelevant to the extended ELM model (Slater & Rouner, 2002). Specifically, with a heightened level of engagement in the show, the audiences' ability of generating counterarguments diminishes, making them hard to resist persuasive intents.

Even though theoretical and conceptual frameworks between the two models are seemingly comparable, the present study primarily employed the MIP model in the design and evaluation of media literacy curricula based on the following three reasons. First, the goal of the present project was to evaluate whether type of media literacy lessons interferes with or facilitates adolescents' interpretations of pro-health entertainment programming. A media literacy curriculum based on a well-evaluated, well-employed theoretical framework, such as the MIP model, is preferred. Second, given that the lesson-recipients of the present study were adolescents, a theoretical framework that has been applied to studying children's and adolescents' decision-making process is clearly a plus. Third, exploratory work still needs to be done to examine whether incorporating the ELM model or the extended ELM model to media literacy curriculum development is a sound idea.

Audience involvement has become a key mechanism influencing the effectiveness of entertainment-education. Defined as "the degree to which audience members engage in reflection upon, and parasocial interaction with, certain media programs, thus resulting in overt behavior change" (Sood, 2002, p.156), audience involvement is primarily composed of two main elements: Involvement (e.g., referential and critical involvements) and parasocial interaction (e.g., affective, cognitive, and behavioral interactions), based on a qualitative analysis examining fan-letters written to entertainment-education

programs and a quantitative analysis of randomly selected questionnaires sent to regular program listeners (Sherry, 1997; Sood, 2002; Sood & Rogers, 2000).

Referential involvement is the degree to which a viewer relates his or her personal experience to a media message, whereas critical involvement is the likelihood of an audience member to help construct the program by suggesting plots in their written letters (Sood, 2002; Sood & Rogers, 2000). Parasocial interaction, defined as an audience member's perceived interpersonal relationship with a media character, has been utilized in explaining the degree to which an audience member interacts with the characters in an entertainment-education program promoting pro-social behavior (Papa et al., 2001; Rubin & Perse, 1987; Sherry, 1997; Sood & Rogers, 2000). Parasocial interaction explains how an audience member interacts with media characters and with a media program (Rubin & Perse, 1987) and why an audience member changes his or her behavior (Sood, 2002; Sood & Rogers, 2000).

Affective interaction is "the degree to which an audience member reacts interpersonally to the characters in a soap opera" (Sood & Rogers, 2000, p.390). An audience's emotional response to an entertainment program often spawns a close, intimate relationship with the characters. Hence, the program's impact on an audience member's life is a function of an audience member's identification with the characters and with a soap opera program (Sood & Rogers, 2000). While affective interaction focuses on the emotional aspect of the programming with which an audience member identifies, cognitive interaction enters on audience member's attention to the educational content of a soap opera. An audience member's affective and cognitive interactions often

lead to behavioral interaction, which is the degree to which a viewer discusses media messages with other viewers.

These dimensions of parasocial interaction and involvement are not exclusive; that is, an audience member is likely to exhibit more than one dimension of parasocial interaction and involvement in the written letters to the program producers. Specifically, when an audience member relates a media message to his or her own personal life experience (referential involvement), the audience member is found to exhibit both affective and cognitive interactions (Sood & Rogers, 2002). When the audience member shows both referential and critical involvements, behavioral interaction, the tendency of talking about the show with other viewers, likely appears as well (Sood & Rogers, 2002).

Overall, theoretical concepts have identified characters' role modeling in entertainment-education and audiences' involvement/engagement as a means to facilitate interpersonal communication with friends and close family members and parasocial interaction, which in term affect viewers' self-efficacy and behavior change. All of the factors lead to a domino effect with an increase in audiences' desire to identify with the characters, then self-efficacy, and finally behavior change.

Entertainment-education undergoes a series of rigorous formative, process, and evaluative research to provide information about target audiences and to inform campaign message design and evaluation (Singhal et al., 2004). Extensive formative research is often used to identify target audiences prior to the design and implementation of an entertainment-education program. Once the information on target audiences is collected to inform the design of an entertainment-education program, process evaluation is used to ensure that the program is designed based on the formative research. Audience

members' written letters to the producers are used to document the degree to which viewers' liking for the program and their likelihood of identifying with the characters in the show. Lastly, rigorous evaluations are often conducted to document viewers' decision-making process that leads to behavior change. Qualitative methods, including in-depth interviews with the viewers, and quantitative methods, including field experiments and surveys, have both been used in evaluative research (Singhal et al., 2004; Sood & Rogers, 2002). Particularly, quasi-experimental designs are the most commonly practiced method that provides causal inferences of the effectiveness of an entertainment-education program on viewers' attitudes toward pro-health behaviors.

International Entertainment-Education in Facilitating Behavior Change

Through a field experiment in Tanzania, an entertainment-education radio soap *Twende na Wakati* (Let's Go with the Times) focused on HIV/AIDS prevention, has found to increase viewers' self-efficacy, interpersonal communication with friends and family members, and identification with the transitional characters depicted. All of these decision-making mechanisms have led to behavior changes among regular viewers, including a decrease of the number of sexual partners and an increase of condom use for both male and female viewers. Further, a radio soap opera on family planning and HIV prevention broadcasted in St. Lucia altered listeners' attitudes toward family planning methods (Vaughan, Regis & St. Catherine, 2000). Regular listeners held a more favorable attitude toward promoted family planning methods and had a better understanding of the importance of HIV prevention than non-regular listeners.

Other entertainment-education programs not only focus on changes within individuals but also emphasize changes at the community level. Papa et al. (2001)

discussed whether or not community members enact system-level changes as a result of exposure to an entertainment-education soap opera *Tinka Tinka Sukh* (Happiness Lies in Small Things) in India. Papa et al. (2001) identified mechanisms linking media exposure to behavior, such as parasocial relationship, conversation with the interpersonal network, and collective self-efficacy (community members' perceived efficacious effort that they can change conventional practices). Overall, *Tinka Tinka Sukh* inspired the whole community to engage in collective action to address social problems, such as environmental conservation, gender equality, and dowry through listeners' conversation with their peers and social learning from the portrayed characters. Yet, contradictory practices were observed a year after the program was aired. For example, some community leaders, while abandoning the practice of dowry after listening to the program, have resumed the practice once again (Papa et al., 2001). It shows that persistent message implementation throughout a longer period of time should be employed to facilitate long-term behavior change.

Entertainment-education in the U.S.

Entertainment-education has predominantly been implemented and evaluated internationally, particularly in societies where only a handful of media outlets are available. The success of international entertainment-education is often the result of a large number of regular viewers who attend to the programs religiously. In a non-cluttered media environment, entertainment programs designed to educate the public can easily capture audiences' attention and prompt behavior changes in individuals. Attentive audiences are a key ingredient of its effectiveness. While there are considerably more entertainment-education programs implemented in the non-Western

society, there rarely is an entertainment program dedicated to educate the public about pro-health issues in the U.S. In fact, there is a tremendous amount of resistance to entertainment-education in message production and message environment (Bouman, 2002; Sherry, 2002; Sood & Rogers, 2002). This is due, in part, to the difficulties of launching a stand-alone, commercially successful entertainment-education program in the U.S. saturated media environment (Bouman, 2002). For example, Glik, Berkanovic, Stone, Ibarra, Jones, & Rosen et al. (1998) worked with prime-time and daytime entertainment television to promote the importance of immunization. Even though the promotion was designed through rigorous strategy development to reach out key media gatekeepers in the film and television industry, media structure complicates the process as embedding immunization messages in current entertainment programs becomes a preferable approach (Glik et al., 1998).

Thus, to promote pro-health behaviors using the entertainment media in a media-saturated society, inscript participation, defined as embedding pro-social or pro-health scripts or a few lines in an existing entertainment program to promote awareness and social change, is considered as a practical approach to educating the public. A large amount of target audiences can still be reached through established, popular entertainment programs (Glik et al., 1998). Inscript participation or embedding health messages in established, popular entertainment programs is particularly favored in the Western society (Sherry, 2002). Immunization promotion, condom-efficacy messages, syphilis outbreak messages, mental illness issues, and STD/AIDS messages, are examples of pro-health messages that have been embedded in soap operas, dramas, and comedies (Glik et al., 1998; Kennedy, O'Leary, Beck, Pollard, & Simpson, 2004;

Ritterfeld & Jin, 2006; Valente, Murphy, Huang, Gusek, Greene, & Beck, 2007; Whittier, Kennedy, Lawrence, Seeley, & Beck, 2005; Wilkin, Valente, Murphy, Cody, Huang, & Beck, 2007).

Although pro-health messages embedded in the entertainment programs could not be defined strictly as entertainment-education, this type of messages has received significant success in modifying health behaviors among regular program viewers. Entertainment television can potentially be a healthy sex educator (Collins, Elliiott, Berry, Kanouse, & Hunter, 2003). Using an episode of *Friends* depicting Ross, one of the main characters, did not realize that condom use is not 100% effective in preventing pregnancy, Collins et al. (2003) found that this episode successfully raised the awareness of condom use knowledge (Collins et al., 2003). Even though the episode depicted that condom was not 100% effective in preventing pregnancy, talking about the episode with close family members and friends mediated the process of message exposure and knowledge/perceived efficacy of condom-use among viewers. In fact, interpersonal communication amplified the effects of condom use knowledge, even though the depiction of condom use that Ross exhibited was a failure rather a success. Survey evaluations on other pro-health messages embedded in popular entertainment programs or online chat rooms(e.g., daytime dramas, comedy, sitcoms, etc) yielded similar results, with the majority of messages successfully increase regular viewers' knowledge about health behaviors, change their attitudes, and increase their health practices (e.g., Valente et al., 2007; Whittier et al., 2005). Indeed, mass media can serve as a force promoting positive behavior change (Ward, Day, Epstein, 2006).

The Future of Entertainment-Education Research

Given the general success of entertainment-education programs, it has been regarded as an effective strategy promoting positive behavior change (Farr, Witte, Jarato & Menard, 2005). Yet, the evaluation process of U.S. entertainment-education is somewhat different from the international entertainment-education. For example, U.S. entertainment-education evaluations often involve qualitative interviews, such as in-depth interviews, and/or survey research with less emphasis on experimental designs, making it difficult to establish causal inferences of the message effectiveness on audiences' knowledge of and attitudes toward depicted behaviors (Slater & Rouner, 2002; Sood & Rogers, 2002).

Due to the lack of experimental designs, Singhal and Rogers (2002) have called for more experiments in U.S. entertainment-education research to document variations of changes at the individual, group and social levels. They also advocated that future research about entertainment-education should focus on better understanding *how* and *why* entertainment-education has these effects instead of *what* effects entertainment-education programs have produced (Singhal & Rogers, 2002, p.120).

Theoretical Rationale: The Message Interpretation Process Model

Given that entertainment-education uses positive affect to elicit viewers' attention and helps promote behavioral changes, the question addressed in the current study was whether or not media literacy enhances or diminishes the effects of entertainment television programs portraying accurate alcohol misuse consequences on adolescents' general attitudes toward the media and alcohol misuse. A decision-making theory known as the Message Interpretation Process (MIP) (e.g., Austin, 2006) model will be used to examine the role of media literacy and entertainment-education in changing children's

perceptions of alcohol. Built upon the social expectancy theory (Goldman, Brown, & Christiansen, 1987), the dual process theory (Chen & Chaiken, 1999), and social cognitive theory (Bandura, 2001, 2004), the MIP model theorizes key benchmark factors crucial to the ways in which individuals interpret media messages. The model deemphasizes a stimulus-response effect model, which puts forward that individuals' behavior is the direct reflection of their exposure to media messages. Message receivers are not entirely passive, but rather active viewers of media messages through undergoing a series of rigorous decision-making process that influences viewers' receptiveness to and interpretation of media messages (Austin, 2006; Austin & Meili, 1994; Andsager et al., 2001).

As proposed by the MIP model, individuals' decision-making is composed of both logic- and affect-based decision-making processes, including perceived realism, desirability, similarity, identification, and expectancies, all of which lead to individuals' behavioral intention and enactment of actual behavior (Austin et al., 2006). Perceived realism, one of the logic-based, early decision-making processes, exemplifies individuals' perceptions of whether or not characters in media messages are realistic and are "like most people in the world." If individuals, upon exposure to media messages, determine that characters seem to be realistic and are representative of people in the real world, individuals are then likely to associate characters to be similar to people they know in their own environment. Once characters are perceived as realistic and similar, there is a great likelihood that individuals would emulate the portrayals to further identify themselves with the characters depicted. The level of identification also influences individuals' perceived expectancies (e.g., positive or negative consequences from

engaging in the behavior), which further link to their behavioral intention and actual behavior. On the other hand, lower perceived similarity and lower identification would result in lowered expectancies for the behavior, and thus a lower likelihood of engaging in the behavior.

Individuals' information process is not always logical, however. An early stage of affect-based decision-making process, conceptualized as desirability, can override easily the logic-based thinking; that is, a heightened level of desirability contributes to increases in identification and positive expectancies, which ultimately lead to a greater likelihood of engaging in the behavior (Austin & Meili, 1994). Additionally, desirability can easily overrule the effects of similarity and can independently predict identification and individuals' behavior (Austin & Meili, 1994). Overall, the model predicts that "television messages have effects via an information interpretation process that is both rational (via perceptions of realism and similarity) and emotional (via desirability)" (Austin & Meili, 1994, p.421). The model has been tested on participants of different ages leading to a similar conclusion that individuals, despite their age differences and cognitive capacities, share similar decision-making process. That is, their interpretation of media messages is comparable across different age groups (Austin & Meili, 1994; Austin & Knaus, 2000).

The following sessions will discuss the ways in which key concepts in the MIP model can be or have been applied to studying mass media, media literacy, and entertainment-education.

The MIP Model Applied to Mass Media Effects Context

The model provides theoretical underpinnings to explain *why* and *how* media messages affect individuals' interpretation of mediated messages as well as their behavior after the exposure. Specifically, the feature of logic- and affect-based decision-making process provides ample theoretical groundings to examine the effects media have on children. For example, Austin and Knaus (2000) found that pro-product commercials appeal to 3rd, 6th, and 9th graders and increase their beliefs that drinking will bring positive consequences.

Given the impact alcohol-related advertising has on young adults' drinking intention and behavior, Andsager, Austin, and Pinkleton (2001) investigated appeals in alcohol-related advertising and Public Service Announcements (PSAs) to further untangle whether message characteristics affect young adults' perceived effectiveness of these advertisements. College students reported that pro-product advertising was more visually appealing and enjoyable than pro-social advertising, whereas pro-social advertising was more realistic, more straightforward, and more effective than pro-product advertising. Even though respondents evaluated PSAs as more effective and realistic, a free-recall test asking respondents to write down their comments about PSAs revealed that participants held a critical view toward PSAs. That is, respondents questioned the level of perceived realism and relevance portrayed in the PSAs based on their personal experiences.

Moreover, employing the concepts of the MIP model as basic evaluation criteria of advertising, Andsager et al. (2001) found that college students demonstrated different perceptions of the effectiveness of pro-social and pro-product messages based on their reported drinking behavior. Heavier drinkers perceived commercials to be more

desirable, which subsequently led to greater levels of identification, expectancies, and perceived effectiveness when compared with lighter drinkers and nondrinkers. Overall, pro-social advertising uses a logic-based design strategy, whereas pro-product advertising predominantly uses an affect-based strategy, which further lowers viewers' defensive mechanism, increases their liking of the commercials, and enhances drinking intentions (Andsager et al., 2001; Pinkleton et al., 2001). Findings also suggest that the logic-based decision-making process in pro-social advertising cannot single-handedly persuade heavier drinkers. Indeed, "logic alone will find it especially difficult to complete with apparent realism and emotional appeal" (Pinkleton et al., 2001, p.593). The implication of these findings allows scholars to design health campaign messages in an effort to prevent or to intervene target audiences' attitudes toward substance use and behavior (Andsager et al., 2001; Austin & Knaus, 2000; Austin & Meili, 1994; Austin, Pinkleton, & Fujioka, 1999; Pinkleton, Austin, & Fujioka, 2001).

The MIP Model Applied to the Media Literacy Context

Based on the findings that pro-product advertising impacts children's and adolescents' key decision-making process via desirability and identification, Austin and colleagues believe that critical viewing skills are key mechanisms through which the resistance of pro-product advertising can occur. Pinkleton et al. (2001) suggest that media literacy can be best used to activating the logic-based information processing, such as perceived realism, via strengthening skepticism and distrust of the media (Austin & Meili, 1994).

Critical thinking skills are central to the goal of media literacy. Through introducing the unrealistic depictions and undesirable consequences of media messages,

individuals have an increasing understanding of the purposes and motives behind media messages. This point has reflected on the design and implementation of media literacy training. Consequently, the affect-based information processing is minimized and individuals' positive expectancies of emulating the glamorized behavior is diminished (e.g., Austin et al., 2006).

Given the scarce evaluations dedicated to understanding *why* and *how* media literacy *might* or *might not* work, Austin and colleagues have applied the MIP model to designing and evaluating media literacy lessons with topics of alcohol education, tobacco education, *Channel One* controversy, and sex education (Austin & Johnson, 1997a, 1997b; Austin et al., 2005; Austin et al., 2006; Pinkleton et al., in press; Pinkleton et al., 2007). With the goal of reinforcing participants' logic-based information-processing strategy in hopes to curb the overpowering affect-based information processing, lesson-recipients have a good understanding of the persuasive intent of advertising, which then affect their interpretations of advertising, including lower degrees of similarity, positive expectancies, and behavioral intention (Austin & Johnson, 1997b).

Even with the general success of media literacy training and its focus on strengthening the logic-based information process, recent studies have found that media literacy lessons, to some extent, may not reduce participants' affect-based information processing (Austin et al., 2007). That is, media literacy training might not reduce respondents' perceived appeals of alcohol advertising. Participants still report a higher level of perceived desirability after the media literacy lessons (e.g., Austin et al., 2007). Even though perceived desirability was not changed, participants nevertheless expressed

a higher level of efficacy and a lower level of positive expectancies toward the behavior, both of which led to pro-social behaviors.

The MIP Model Applied to Entertainment-Education

Given the importance of studying individuals' decision-making in response to media messages, the MIP model has not yet been applied to studying the effectiveness of entertainment-education on individuals' behavior. Specifically, the affect-based decision-making process proposed by the MIP model seems to provide a theoretical explanation as to *why* entertainment-education might work. Entertainment-education, known for its depictions of attractive characters engaging in pro-social actions, appears to invoke participants' emotion, an affect-based decision-making process, through the use of drama, music, and narratives (Singhal et al., 2004). It is likely that with engaging plots and attractive characters, participants might involve in a series of affect-based information processing, which may lead to higher levels of perceived similarity, identification, and expectancies toward the pro-social behaviors. Ideally, attentive participants will exhibit positive attitudes toward depicted pro-social behavior and will express a desire to emulate the behavior.

The Goal of the Present Study

Because of the especially appealing nature of alcohol advertising to adolescents and its potential impact on youth's drinking intentions and behavior, scholars have advocated the use of *either* media literacy *or* entertainment-education to inform and to educate youth about alcohol and the media (Bergsma, 2004; Brown, 2006; Collins et al., 2003; Villani, 2001; Kennedy et al., 2004; Singhal et al., 2004). Yet, it is uncertain of

whether or not media literacy and pro-health entertainment programs can both be incorporated in an alcohol prevention education.

Thus, the current study had three goals. First, given that most media literacy evaluations are atheoretical, the MIP model was used in the design and assessment phases of the study. Second, with the majority of media education programs taking on the traditional media-bashing techniques, the study examined whether a balanced media evaluative approach, a combination of critical and positive media evaluative approaches, would affect lesson-recipients' interpretations of alcohol messages. Testing a balanced evaluative approach could help answer whether it could be part of the media instructional strategies. In particular, a critical evaluative approach was compared against the balanced approach in hopes to add to the conversations of what delivering strategy can be best employed in media education. Third, the research investigated whether the strength of media literacy also is its own greatest weakness. Will a heightened critical thinking skill and skepticism invoked by media literacy get in the way of the efforts set forth by entertainment-education? Two evaluative approaches employed in the current study would provide insights as to whether media literacy facilitates or impedes participants' interpretations of pro-health entertainment programs depicting accurate alcohol misuse consequences.

Hypotheses & Research Questions Rationales

The current study manipulated two different instructional approaches (a critical approach vs. a balanced approach) in teaching students about the media. A critical or negative evaluative approach focuses on telling participants the ways in which media manipulate the audience, including advertising techniques and unrealistic representations

of images. In contrast, a balanced evaluative approach emphasizes the pro-social role media can play in societies in addition to the content covered in the critical evaluative perspective. A balanced evaluative approach also is delivered in a less harsh tone than a critical evaluative approach.

Prior research has suggested that negative or critical evaluations of television characters' inappropriate behaviors effectively offset the negative influences theses images have on younger children (Nathanson, 2004; Nathanson & Yang, 2003). Its effect on mitigating the affect-based information process proves to be more powerful than addressing the media production techniques alone (e.g., the factual evaluative approaches), which fails to change younger and older children's perceptions about violent television (Nathanson, 2004; Nathanson & Yang, 2003). Applying the approaches in health-based media literacy curricula, however, a fact-based content or a combination of fact- and affect-based information has successfully shifted children's and adolescents' attitudes toward advertising, television production, and health behaviors depicted in the media (Austin & Johnson, 1997a, 1997b; Austin et al., 2005; Hobbs & Frost, 2003; Hobbs, 2007; Pinkleton et al., in press; Pinkleton et al., 2007; Rapaczynski et al., 1982; Singer et al., 1980). Given that advertising, specifically alcohol advertising in the context of the study, primarily focuses on eliciting individuals' affect-based decision-making process (e.g., desirability, positive consequences of drinking alcohol) and downplaying the fact-based information of alcohol misuse (e.g., realism, possible negative consequences of drinking alcohol), this study designed alcohol prevention content with an attempt to address both routes of decision-making.

Thus, it can be expected that media literacy trainings designed with a skill development and a motivational component can address both the fact- and affect-based information process about the media. With a foundation of both fact- and affect-based media literacy design, it can be expected that a critical evaluative approach would produce significant changes in key decision-making process. Based on prior health-based media literacy campaigns (Austin & Johnson, 1997a, 1997b; Austin et al., 2005; Pinkleton et al., in press; Pinkleton et al., 2007), it can be hypothesized that lesson-recipients who received a critical evaluative approach may experience changes in their perceptions of television characters, consequences of engaging in alcohol drinking, and reflective thinking abilities. Particularly, the current approach could enable them to deconstruct messages to understand the unrealistic nature of the media, to alter their perceptions of commonly misrepresented alcohol drinking behavior, to change their intention of emulating the depicted alcohol drinking behavior, and to be efficacious in changing their alcohol drinking tendency.

Even though scholars are hesitant to employ positive evaluations to examine media messages because of a fear of reinforcing socially unacceptable behavior and glamorized appeals commonly seen in the media among vulnerable audiences, the balanced approach employed in the current study also shares the foundation of a critical approach. Thus, it can be expected that both critical and balanced approaches could better strengthen adolescents' interpretations of media messages through a heightened critical viewing skill than adolescents who receive no training.

In addition, prior research has suggested that adolescent boys and girls have different media use patterns and preferences (for review, see Hust & Brown, 2008), and

their receptiveness to media education also differ based on gender (Pinkleton et al., in press). Thus, a research question is asked to explore whether or not different instructional approaches have varying degree of effectiveness on adolescent boys and girls.

RQ 1: Will participants' responses to the media literacy curriculum and Pro-health entertainment differ based on their gender?

H1a: Participants in the experimental groups (critical evaluations and balanced evaluations) will have lower levels of key MIP model outcome measures, including realism, desirability, identification, positive expectancies, and behavioral intention, and a higher level of negative expectancies and self-efficacy than participants in the control groups.

In addition, it can be expected that media literacy could enhance lesson-recipients' level of reflective thinking, which is the degree of "active consideration of message intent, content, and effects" (Pinkleton et al., 2007, p.25). In particular, introducing lesson-recipients to the ways in which alcohol advertisers manipulate target audience and misrepresent information would heighten their level of distrust toward alcohol advertisers and increase their motivation of thinking carefully about the process by which media messages are produced. Without receiving such training, participants will be unlikely to recognize alcohol advertisers' intentions and will fail to process alcohol advertising messages systematically in comparison to those who receive either type of the training.

H1b: Participants in the experimental groups will have a higher level of advertising skepticism and media skepticism than participants in the control groups.

Given that media literacy focuses on activating critical thinking skills among participants, particularly the training that emphasizes a critical evaluation reinforcing the ways in which media take advantage of children and adolescents and focuses on commenting negatively on television actors and their undesirable actions, it is likely that participants who receive a critical evaluative approach would react differently from participants who receive a balanced approach that presents both positive and negative aspects of the media. In particular, a critical evaluative approach of media literacy should enhance a greater degree of critical examination toward the media than a balanced approach. It can be expected that a balanced media literacy lesson might elicit a slightly more positive response to the media. Consequently, lesson-recipients, instead of being overly critical of media messages, may view media in a somewhat positive light and perceive that characters on television and advertising can, to some extent, be realistic. It is likely that they might increase a likelihood of identifying with the characters and may have slightly more positive expectancies and less negative expectancies when compared to participants who receive the critical media literacy lesson. It still is important to note that participants who receive either kind of the lesson are more aware of the effects media have on them than those who do not receive any training. Thus, even though participants who receive the balanced lesson can view media in a positive light, their strengths in processing media messages systematically are still greater than participants who receive no training.

H2a: Participants in the *critical* condition will have lower levels of key MIP model measures, including realism, desirability, identification, positive expectancies, and behavioral intention, and a higher level of negative expectancies and self-efficacy than participants in the *control* groups.

H2b: Participants in the *critical* condition will have lower levels of key MIP model measures, including realism, desirability, identification, positive expectancies, and behavioral intention, and a higher level of negative expectancies and self-efficacy than participants in the *balanced* condition.

H2c: Participants in the *balanced* condition will have lower levels of key MIP model measures, including realism, desirability, identification, positive expectancies, and behavioral intention, and a higher level of negative expectancies and self-efficacy than will participants in the *control* condition.

Also, there will be differences in perceived advertising skepticism and skepticism toward the media between the critical and balanced condition. Given that the lesson in the critical condition is delivered in a negative way and emphasizes ways in which media manipulate children and adolescents, their lack of positive views toward the media would heighten their level of advertising skepticism and media skepticism. It can be predicted that participants in the critical condition have better abilities to discern alcohol advertisers' intention and would be empowered to be more skeptical than those in the balanced condition. Nevertheless, participants in the balanced condition still understand the advertising and media production techniques and learn the deconstruction skills when viewing alcohol advertising. They are still better at detecting alcohol advertisers' intent than participants who receive no training.

H3a: Participants in the *critical* condition will have higher levels of advertising skepticism and skepticism toward the media than participants in the *control* condition.

H3b: Participants in the *critical* condition will have higher levels of advertising skepticism and skepticism toward the media than participants in the *balanced* condition.

H3c: Participants in the *balanced* condition will have higher degrees of advertising skepticism and skepticism toward the media than participants in the *control* condition.

The following hypotheses were proposed to answer the third goal of the study, which was to assess whether media literacy training affected adolescents' interpretations of pro-health entertainment programs. Even though prior hypotheses predicted that participants receiving critical media literacy would have greater degrees of understandings in every aspect of decision-making process than participants in the balanced condition, it is possible that critical media literacy diminishes participants' perceived positive values of pro-health entertainment programs. Specifically, participants' heightened levels of advertising skepticism and media skepticism would interfere with their systematic processing about pro-health entertainment programs as they would have the least amount of trust toward the programs.

H4a: Participants in the experimental groups (*critical and balanced* conditions) will have a lower level of trust and have a higher level of skepticism toward pro-health entertainment programs than participants in the control groups.

H4b: Participants in the *critical* condition will have a lower level of trust and have a higher level of skepticism toward pro-health entertainment programs than participants in the *control* groups.

H4c: Participants in the *critical* condition will have a lower level of trust and have a higher level of skepticism toward pro-health entertainment programs than participants in the *balanced* condition.

H4d: Participants in the *balanced* condition will have a lower level of trust and have a higher level of skepticism toward pro-health entertainment programs than participants in the *control* condition.

Two additional research questions were offered. The first research question asked whether adolescent boys and girls had varying degree of receptiveness to media literacy. Given that prior research has suggested that adolescent girls and boys perceived media literacy differently (Pinkleton et al., in press), answering the question would help media literacy scholars to address who might need media education the most. The second research question asked whether media literacy training affected adolescents' interpretations of pro-health entertainment programs. Specifically, based on the MIP model, program characteristics, including realism, desirability, similarity, identification, and expectancies (positive and negative), were asked in addition to behavior change factors, including self-efficacy and behavioral intention. Adolescents' opinions about the shows, including their cognitive/emotional involvement and perceived educational value of the shows, also were explored.

RQ2: Will participants' interpretations of the pro-health entertainment programs differ based on the media literacy training and their sex?

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

TeenSmart TV Background Information

In order to conduct a media literacy experiment at a school setting, a few steps were taken to make sure the process goes as smoothly as possible. First, media literacy content needs to be designed and finalized. The primary researcher referenced a few available media literacy curricula, such as *AdSmarts* (Scott Newman Center, 1993), *Ad Wise* (Washington State Association of Broadcasters, 1995), *Media Sharp* (SAMHSA, CDC, AAP, & NEAHIN, 1998), and *Media Detective* (Innovation Research & Training, nd) to guide conceptualization and design of the stimuli. The above curricula were aimed at teaching children and adolescents the purpose of advertising and applied the concepts specifically to alcohol and tobacco advertising. In particular, the current study adapted handouts from the curricula and from the Center for Media Literacy Website (www.medialit.org) that address advertising techniques (advertising hooks) and deconstruction skills.

Also, given that empirically evaluated media literacy research has invaluable inputs in administering an experiment, the main researcher consulted the following articles to obtain information pertaining to message development, experimental procedures, and instruments: Austin and Johnson (1997a, 1997b), Austin et al. (2006), Austin et al. (2005), Nathanson (2004), and Pinkleton et al. (in press). Specifically, the concepts of media economics, critical thinking skills, and positive/negative media teaching strategies were adapted from the above articles.

The alcohol advertisements shown to students were collected from YouTube, an online open source where videos and advertisements are posted by the public. The main researcher typed in key words, such as "beer ads," "alcohol ads," "funny beer ads," and "humorous beer ads" to search for current beer advertisements available for the use in alcohol advertising discussions. Because alcohol advertisements were shown to minors in media literacy experiments, the main researcher carefully screened out any elements suggesting sexual references not suitable to minors, including body gestures and verbal cues. Detailed descriptions of the advertisements will be described in the following section.

Then, a catchy name was given to the project in order to elicit positive responses from the schools. An appealing title for the project would help the main researcher pitch the idea to teachers at the secondary schools. After brainstorming with a doctoral student considering the objectives of this dissertation project, the title "*TeenSmart TV*" was subsequently born. The title also delivered the goal of media literacy, which is to empower students to outsmart television. See Appendices A and B for two versions of letters to principals and teachers.

TeenSmart TV Program Presenter

A doctoral student who is a native speaker was hired as a research assistant to implement *TeenSmart TV* program materials. The research assistant traveled with the main researcher during the experimental phase of the study. She, along with the main researcher, was introduced by school teachers as *TeenSmart TV* program presenters. The research assistant has had experience in administering media literacy (see Austin et al., 2005) and was trained extensively by the main researcher for at least twenty hours to

ensure that the experimental content was well-followed and well-delivered throughout. Even though the primary lesson was taught by the research assistant, the main researcher was occasionally involved in the classroom discussions, especially when the media literacy training went off track.

Details of TeenSmart TV

TeenSmart TV is a two-day media awareness program focusing on alcohol prevention education targeting adolescents. *TeenSmart TV* comes with three instruments: a pretest booklet, a posttest booklet, and an entertainment-education booklet. This project combines media literacy and entertainment-education in an effort to answer the proposed hypotheses and research question. Researchers coordinated with health, English literature, and family and consumer sciences teachers to distribute the first set of pretest questionnaires and parental consent forms a week prior to program implementation. Teachers were given a detailed instruction sheet addressing the importance of obtaining parental consent forms and the importance of having students turn in finished pretest questionnaires. Teachers also were informed that students who did not have parents' consent could still sit in with their classmates when researchers administering the media literacy lesson. They, however, would not be able to answer any questionnaires. See Appendices C and D for distribution instruction and *TeenSmart TV* lesson plan. Also, see Appendices E-K for parental consent forms and all of the instruments used in the present study.

Two components are included in the *TeenSmart TV* program: a media literacy program (negative vs. balanced) and an entertainment-education clip (*One Tree Hill*, *Saved by the Bell-New Class*, or *Dawson's Creek*). Overall, *TeenSmart TV* is designed to

better understand the effectiveness of different types of media literacy lessons (negative vs. balanced) on adolescents' perceptions toward alcohol advertising, and to answer whether media literacy and entertainment-education, two seemingly different approaches for pro-health education, could work together in a comprehensive media education program.

The Design of Two Types of Media Literacy Lessons

First, two types of media literacy lessons were developed. The goal of the *TeenSmart TV* program was to teach youngsters to be aware of advertising techniques in hopes that students can apply the concepts to alcohol advertising and general television programming. Generally, media literacy curricula are delivered within a few class periods. Because of time constraint, however, *TeenSmart TV* had to be covered within a 30-minute time frame. Otherwise, students would not be able to fill out instruments measuring their responses to the program materials and attitudes toward alcohol advertising. To effectively cover the lesson plan, the media literacy lesson was divided into five distinctive parts to help the research assistant better deliver the lesson by following a detailed lesson progression. These five parts also helped the main researcher to monitor the time spent on teaching each part. All of the elements worked well together because they documented a transition from general media use introduction to alcohol advertising and then to alcohol misuse consequences. Detailed descriptions of each component are described below.

TeenSmart TV Part 1: To understand the pervasiveness of media use among youngsters, a handout of "TV Diet," including questions of the amount of television students consume during the typical weekday/weekend during the school year, was

distributed to students. While the majority of media literacy curricula have focused on other media, including radio, magazines, newspapers, and the Internet, *TeenSmart TV* only selectively focused on general television use because of time constraint. Focusing on general television use was necessary because it helped facilitate the discussion of entertainment-education components. After talking with students about the amount of television they consume everyday and the television set(s) they have in their household, the hired research assistant acted as a program presenter then asked students to compare their media use against the national average. Students learned that people like them spend an average of 4.5 hours with TV everyday (Roberts, Foehr, Rideout, & Brodie, 1999). See Appendix L for the first handout.

TeenSmart TV Part 2: The purpose of Part 2 was to introduce students to the concept of media economics, which details the relationship between the audience-financed media and the viewer (Napoli, 2003). Media economics discusses the ways in which the audience is manufactured, valued, and sold and the extent to which advertisers work diligently to predict the audience's profile and buying tendency. It is a concept frequently employed by critical cultural scholars when discussing the importance of nurturing a media literate generation (e.g., Jhally, 1989) and is especially helpful when designing media literacy curricula (Austin et al., 2006). To introduce the media economics principle to students, a visualization technique was used to illustrate the interrelations of television networks, advertisers, and the audience (Austin et al., 2006). The presenter demonstrated to students that they are the products sold to advertisers by the producers of television programs. Thus, television networks (i.e. sellers) sell the audience (i.e. product) to advertisers (i.e. buyers). To further reinforce this concept, two

PowerPoint slides of the popular singing contest *American Idol* with images of Coca Cola cups in front of three judges, Paula Abdul, Randy Jackson, and Simon Cowell, were presented to the students. They learned that all television programs were supported exclusively by advertisers and *American Idol* is a big advertisement for Coca Cola. Students also learned that popular television programming doesn't come inexpensively. For example, *Grey's Anatomy* and *The Simpson* charge approximately a million dollar for a one-minute ad (Steinberg, 2007). This helped reinforce the idea that the audience is, in fact, the product, not the consumer.

TeenSmart TV Part 3: The program presenter than made a transition from general television programs to advertising. A handout of "Ad Hooks: Things Advertisers Used to Get Your Attention" was distributed to students. This handout contained specific advertising appeals attractive to youngsters, including a) humor: funny, smiling, laughing; b) music: goes with the feel of the ads; c) macho: strong, tough, powerful; d) friends: groups of people having fun and doing things together; e) animals/cartoon: often cute or humorous; f) celebrity: someone famous, including athletes, movie stars, and musicians. See Appendix M for the "Ad Hooks" handout.

TeenSmart TV Part 4: The goal of Part 4 "Deconstruct alcohol advertising" was to show students two alcohol advertisements and asked them to analyze advertising techniques based on the handout "Ad Hooks." A balanced design was employed by randomly selecting two advertisements from a total of three groups of alcohol advertisements collected from the online source "YouTube." Each group consisted of two alcohol advertisements. A balanced design was used to prevent message specific effects. The first group featured Bud Light-Monkey and Keystone. The second group

featured Heineken-Brad Pitt and Budweiser-Clydesdale and the third group featured Guinness-Rugby and Budweiser-Donkey. Each group had one funny advertisement with another advertisement featured other frequently found advertising appeals, such as drinking as a social activity. After watching two commercials, students were asked to pinpoint what advertising hooks were used in the alcohol advertisements.

TeenSmart TV Part 5: The last handout, "Myths Alcohol Advertisers Want You to Believe," was distributed to sum up the *TeenSmart TV* lesson. This handout covered materials students learned throughout the program and reinforced negative consequences of alcohol use. In this handout, four myths and corresponding facts were presented to students: 1) Myth #1: Drinking is a risk-free activity; 1) Fact #1: One teen is killed every 60 minutes because of teen drunk driving (The National Highway and Traffic Safety Administration, 2001). Other consequences: get sick to your stomach, alcohol poisoning, and academic failure; 2) Myth #2: Sports and alcohol go together; 2) Fact #2: Drinking alcohol affects judgments and physical performance, which would affect athletes' overall performance; 3) Myth #3: Drinking alcohol makes you look cool/popular; 3) Fact #3: Advertisers use ad hooks to get your attention; 4) Myth #4: Alcohol advertisers tell us the danger of alcohol; 4) Fact #4: They spend $8 billion each year to get young people like you to drink. The facts and myths were modified from *AdSmart* media literacy curricula and referenced prior media literacy research (e.g., Austin & Johnson, 1997a, 1997b). See Appendix N for the "Myths Alcohol Advertisers Want You to Believe" handout.

In both conditions, *TeenSmart TV* lessons were delivered through a combination of statement- and discussion-based methods. Even though the foundation of the curricula was consistent between the negative and balanced conditions, the ways in which the

lessons were delivered differed drastically. A media literacy lesson featuring a negative approach emphasized the fact that viewers are being exploited by alcohol advertisers and television program producers, whereas a balanced media literacy lesson used a neutral tone to deliver the lesson. Occasionally, some students in the negative condition would mention that television could deliver good information. When students intended to bring this point up, the main researcher would interject by saying "today we are interested in the negative influence television has on you so we are just going to talk about this specific aspect today." After saying so, these students did not object and the lesson continued.

In addition to the same program materials, the program presenter in the balanced condition reminded students to think about a few questions when they see an alcohol advertisement: Is it realistic?; Are people in the ads similar to you?; Do you really want to be like that?; Do people act like that?; Does drinking alcohol bring positive outcomes?; Did they tell you anything about the beer in the ad? The program instructor also asked students whether they could think of a few examples of "good media." Students often responded to this question by mentioning *The Animal Planet*, *Discovery Channel*, and *PBS*, among others. The presenter also added a few statements, including "media can be good for you" and "when you watch television next time, you want to make sure that the alcohol consequences portrayed in the show are consistent with what we have talked about in this class." In addition, one magazine featuring an anti-drug advertisement was shown to students as an example of how media can be used to promote pro-health behavior. Students who received the balanced media literacy lesson not only learned the purpose of alcohol advertising and advertising hooks in a fairly neutral way but also were

primed to think that media can produce positive, pro-social, and pro-health messages. Hopefully students who received the balanced lesson would be able to verify pro-health information in the media from the rest.

Pro-Health Entertainment (PHE) Materials

Pro-health entertainment clips featuring adolescents' alcohol misuse consequences were selected to complete the second component of the project. Stimuli were selected from available databases from Sentinel for Health Awards sponsored by the Norman Lear Center at the University of South California, and from PRISM award presented by the Entertainment Industries Council, Inc (EIC). Both of the organizations annually award positive, accurate portrayals of health and social issues in television programs, radio shows, and movies produced by entertainment industries. The two organizations' online databases offer detailed information on television programs (e.g., drama, daytime talk shows, soap operas, comedy, etc) and/or episodes that depict pro-social and pro-health consequences.

Before searching the two Websites for pro-health entertainment clips, a few search criteria were pre-determined by the main researcher. First, given that the databases cover a wide arrange of pro-health portrayals (e.g., AIDS prevention, sexual health issues, and tobacco cessation), the entertainment programs and corresponding episodes could *only* cover alcohol misuse consequences, such as fetal alcohol syndrome, being sick to stomach, etc. Second, the entertainment programs needed to have certain degree of popularity among teens in order to capture their attention. Daytime soap operas, for example, would not meet this criterion as the primary audience profile of this genre is female homemakers. Third, the entertainment programs and episodes had to be

available for purchase or for rent. Otherwise, the researcher could not obtain and edit the clip. Fourth, to prevent specific gender-targeted effects, male and female actors in the episodes have to be *both* involved in alcohol misuse consequences.

After undergoing a rigorous selection process based on the above search criteria, three entertainment programs were chosen, including *One Tree Hill*, *Saved by the Bell-New Class*, and *Dawson's Creek*. Other entertainment programs that fit some or all of the search criteria but were either not yet available for purchase or targeted college-aged students rather than middle- and high school-aged students. In each episode of the program, *both* male and female characters experienced various health and social consequences of alcohol misuse, such as feeling sick to one's stomach and embarrassing themselves in front of close friends and families with apparent intoxication and bizarre behaviors. Each episode originally ranged from approximately 30 to 60 minutes, often containing not only alcohol misuse consequences but also other sub-plots interwoven with the alcohol misuse narratives. To fit the lengthy episodes in a given class period (approximately 37-45 minutes long depending on the schools visited), a professional editor was asked to edit the episodes to *only* retain alcohol misuse plots. As a result, the editor was able to shorten the clips down to twelve to fifteen minutes long. The episode from *Dawson's Creek*, however, took a considerable amount of effort to edit as the episode spent a great deal of time on telling the alcohol misuse experience two characters learned. Detailed plot descriptions are provided below.

Plot Description of One Tree Hill

> Nathan's anger over Haley's absence continued to grow, landing both Lucas and Nathan in jail. Lucas called his mom and she refused to bail him and Nathan out.

Felix, Brooke's boyfriend, threw Brooke a party to celebrate her new title as a student body president. Brooke saw her friend Erica, who was wasted after drinking too much beer. Brooke decided to bring her back to her house and arranged a taxi to come pick her up. When Erica woke up, she ended up throwing up.

Plot Description of Saved by the Bell-New Class

Toward the end of the semester, a bunch of friends at the Bayside High had been planning for the "Beer Fest," a party tradition that celebrates the end of a semester. Mr. Belding, the principal, warned students not to drink and not to drink and drive. These high school students, however, were just too excited to listen to Mr. Belding. A wild party at the beach had all the drinkers go wild. The consequences of underage drinking and over consumption of alcohol had these high school students learn an important lesson: not to drink and to be responsible.

Plot Description of Dawson's Creek

On his 16th birthday, Dawson was emotionally vulnerable and frustrated because he could not express his love to his crush, Joey. Andie, who had been taking care of her younger siblings for a long period of time, expressed to her therapists that she just wanted to let go all the responsibility. Her therapist prescribed her to be "imperfect" for a night to let loose. Dawson, Andie, and Pacey (Andie's boyfriend) decided to throw themselves into an unabashed night of recklessness where both Dawson and Andie pretended to be 21 and got drunk at the jazz club. Both of them ended drunk and acted silly on stage singing the blues. Meanwhile at Dawson's parents' house, Joey was organizing a surprise party for Dawson.

But the longer the guest of honor was a no-show, the more she was subject to surprises of her own. Finally, Dawson and his friends arrived at the surprise party and ended up making a fool of himself in front of the crowd. Then, Dawson and Andie both threw up afterwards. They promised not to have any drinks in the future.

To understand whether targeted participants were able to comprehend narratives presented in edited clips, a panel of three adolescent females was consulted. They were asked to watch all of the three clips and offered brief comments on each condensed episode. All of them said that they were able to comprehend the shows they watched. In particular, they understood negative consequences experienced by the main characters.

One girl commented on *Dawson's Creek*, saying "it [Dawson's Creek] really showed about teenagers' maturity level. How well they behave and act in front of people when they are drunk which is actually in all of them. How it affects everyone, and judgment. And it showed that it doesn't matter if you get caught or not." She also said that "I think it [Dawson's Creek] does show the consequences of excessive drinking very fully! The bathroom scene truly showed the point!" In addition, there were comments about *Saved by the Bell-New Class*. It seemed that the three girls focused on the peer pressure perspective of the show when one of the main characters, Kitty's boyfriend, forced Kitty to drink even thought she didn't want to. One girl said that "[this show demonstrated] how it relates to respecting people's wishes…like not forcing them to drink (peer pressure)." The last clip, *One Tree Hill*, seemed to better capture three young adolescent girls' attention as it is relatively newer than *Dawson's Creek* and *Saved by the Bell-New Class*. One girl described the relationship of two male characters and

understood that one character was trying to be a good friend looking out for his friend. She also said that "[his best friend was] trying to stop him from drinking and driving. There is a possibility that he could have gotten into a wreck and because he is such a good friend he will take that risk to help! I think I really got the point! I think this would be awesome to show in a class."

The main researcher then asked whether these three entertainment-based clips could be used in alcohol prevention education; all of them said that materials they watched addressed issues to which adolescents can relate. One girl said "I believe you can use them in a classroom and I think the teachers would like them. …[the clip] is like true events. It brings something new to the teachers collection of boring movies [alcohol prevention movies] so I think they were great for the purpose they would serve."

Recruitment Process

To recruit participants for this project *TeenSmart TV*, several middle and high schools in Eastern Washington were identified and contacted. Middle and high school students (7^{th} to 10^{th} graders) were chosen because alcohol advertisements use appeals and themes particularly attractive to youngsters (Austin & Hust, 2005). Considering that media awareness programs should start as young as possible and adolescents are part of the primary target consumers of the alcohol industry, the main researcher believed that middle- to high school-aged students should be the primary lesson-recipients for this project. Health education curricula designed for the age groups also start to address alcohol misuse consequences. The main researcher also believed that school administrators and teachers would be more receptive to a media literacy program focusing on alcohol prevention education.

The recruitment process lasted four months from October, 2007 to January, 2008. To recruit participants, the primary researcher first phoned the schools and contacted superintendents, principals, or teachers who might be interested in introducing the program to their students. Teachers contacted in this study primarily taught health, family and consumer science, and English literature courses. Once the superintendents or principals showed initial interest, the primary researcher emailed brief program materials to teachers. Once their interests were confirmed, the primary researcher visited the schools to explain procedures involved in *TeenSmart TV* and lesson materials (e.g., handouts and evaluation instruments). The primary investigator also informed superintendents and principals that students who participated in the study would be awarded with either a $10 bookstore gift or a $5 gift card and pencils/pens. All of the teachers welcomed this idea as some of them have repeatedly expressed to the primary researcher that students from rural areas are desperately in need of this type of resource that is not generally available to them.

After four months of recruitment process, a total of four schools agreed to participate in the *TeenSmart TV* program. None of the participants were from metropolitan area.

Experimental Design

A total of fifteen classes from 7th grade to 10th grade from four middle and senior high schools participated in the *TeenSmart TV* program. Because random assignment was virtually impossible in a field experiment, a pretest and posttest quasi-experimental group design with a control group was conducted (Figure 1).

Figure 1 about here

The control group participants did not receive any media literacy lesson until they filled out the pretest and posttest instruments and a pro-health entertainment instrument after watching a randomly selected clip. They then received a balanced media literacy lesson in the second class period so they also had the lesson similar to the treatment group participants.

Although students in each class received the same media literacy lesson, the main researcher decided to randomly assign media literacy program and entertainment-education clips at the class level. In addition, each media literacy condition also watched a group of two alcohol advertisements randomly selected from three groups of alcohol advertisements. See Table 1 for a detailed balanced random assignment.

Table 1 about here

Data Collection Procedures

Teachers distributed the first set of instrument a week prior to program implementation. A week later, the research team came to school and administered the experiment. Students in treatment groups received the *TeenSmart TV* program and filled out the second set of instrument on the same day. On the second day, they watched an entertainment-education episode randomly selected from *One Tree Hill*, *Saved by The Bell-New Class*, and *Dawson's Creek*, all of which featured alcohol misuse

consequences. Students in the control group filled out the second instrument at the beginning of first class. They then watched a randomly selected entertainment-education episode and filled out the third instrument. On the second day, students in the control group received a balanced media literacy lesson. At the end of the class, participants each received a gift card. See Appendix F for detailed lesson plan.

Media Literacy Pretest and Posttest Measures

Instrument Design

The Message Interpretation Process Model provided the theoretical foundation of this project. Key benchmark measures, including realism, desirability, similarity, identification, positive expectancies of alcohol use, and negative expectancies of alcohol use, were included in pretest, posttest, and entertainment-education instruments. Also, behavioral intention of drinking alcohol, advertising skepticism, and skepticism toward the media were included as well.

Unless otherwise noted, measures were assessed on seven-point Likert-style scales on which 1 indicated "Never" and 7 indicated "Often." See Table 2 for information regarding indices, measures, and reliability scores.

Table 2 about here

See Table 3 for descriptive statistics of all indices across conditions by gender.

Table 3 about here

Realism: Perceived realism measures the extent to which individuals thought the characters in the shows or the shows themselves are consistent with the realistic depictions in the real world. Realism measures were obtained from Austin and Johnson (1997a, 1997b). The following four questions were used to measure realism: Real people act like people on TV; Real people look like people on TV; Real people do things that people on TV do; Things that happen on TV happen in real life. The pretest alpha assessing reliability of the index was .65 and at posttest it was .77.

Desirability: Perceived desirability measures the extent to which an individual thinks the depicted behavior is attractive to them. Desirability measures were adapted from Pinkleton et al. (in press). The following four questions were used to measure desirability: When people on TV act sexy, it makes the shows more interesting to me; I like TV programs that show people having fun; TV programs that show people acting popular get my attention; My favorite TV programs include people having fun. The pretest alpha assessing reliability of the index was .63 and at posttest it was .68.

Similarity: Similarity measures the extent to which an individual perceives the characters on television are like people around them. Measures were adapted from Austin and Johnson (1997a, 1997b). The following five questions were used to measure similarity: I do things that people on TV do; I like things that people on TV like; I am like the people on TV; People on TV are like my family; I have as much fun as the people on TV do. The pretest alpha assessing reliability of the index was .70 and at posttest it was .78.

Identification: Identification measures an individual's wishful thinking of emulating the depicted behaviors exhibited by the television characters. Measures were

obtained from Austin et al. (2006). The following two items were used to measure identification: I want to live my life like people on TV; I want to have as much fun as the people on TV do. These two items correlated r=.43 (p<.001) at the pretest and r=.56 (p<.001) at the posttest.

Positive expectancies: Positive expectancies measure whether or not an individual perceives that alcohol drinking brings positive outcomes. The following six questions were adapted from Austin and Johnson (1997a, 1997b), and Austin et al. (2006) to measure positive expectancies of alcohol drinking: Drinking alcohol makes a person happy; helps make a person have more fun; makes a person more grown-up; helps a person make more friends; helps a person feel relaxed; helps a person feel confident. The pretest alpha assessing reliability of the index was .84 and at posttest it was .85.

Negative expectancies: In contrast to positive expectancies, negative expectancies measure the extent to which an individual perceives that drinking alcohol brings unpleasant consequences. The following five questions were adapted from Austin and Johnson (1997a, 1997b), and Austin et al. (2006) to measure negative expectancies of alcohol drinking: Drinking alcohol could get a person in trouble with your parents; could make a person feel sick to stomach; can harm a person's health; could get a person arrested; will get a person into trouble with the police. The pretest alpha assessing reliability of the index was .64 and at posttest it was .81.

Self-efficacy: Self-efficacy measures an individual's perceived empowerment of resisting peer pressure and their degree of self-control of not using alcohol. The following four questions were adapted from an anti-tobacco media literacy evaluation by Austin et al. (2005) to alcohol prevention education context: I can influence whether my

friends use alcohol; I can talk to friends about the danger of alcohol use; I can resist the influence beer ads have on me; I feel comfortable saying no to people if they offer me alcohol. The pretest alpha assessing reliability of the index was .68 and at posttest it was .75.

A number of items pertaining to advertisers' persuasive intent, advertising skepticism, skepticism toward the media, and critical thinking were factor analyzed as these items have not yet been established as reliable in research on children and adolescents. These measures were adapted from a variety of sources, including advertising skepticism measures (Boush, Friestad, & Rose, 1994), consumer skepticism (Obermiller & Spangenberg, 1998), skepticism (Austin et al., 2006), media skepticism (B. Pinkleton, personal communication, December 16, 2007), and critical thinking (Austin et al., 2005). Two principal component analyses with Varimax rotation were conducted to analyze pretest and posttest items, respectively. Two analyses revealed the same patterns for pretest and posttest items. The factor labeled as "Advertising Distrust" was composed of six items with 29.17% and 36.87% of variances explained in pretest and posttest, respectively. The factor labeled as "Media Skepticism" was composed of four items with 17.67% and 22.28% of variances explained in pretest and posttest, respectively. See Table 4 for more details.

Table 4 about here

Advertising trust: The following four questions were asked to assess participants' advertising skepticism: Advertisers care about what is good for you; Alcohol ads tell the

truth; You can believe what people in commercials say or do; The products advertised on TV are the best products to buy. The pretest alpha assessing reliability of the index was .60 and at posttest it was .76.

Media Skepticism: The following six questions were used to assess participants' critical thinking abilities: I seek out additional information to confirm things I learn from TV; I think about things I see on TV before I accept them as believable; It's important to think twice about what TV says; I think about why someone created a message I see on TV; I think about how someone created a message I see on TV; I think about what the creator of a message wants me to think. The pretest alpha assessing reliability of the index was .80 and at posttest it was .89.

Behavioral intention: The following four questions were used to assess participants' intention to drink alcohol next year and before they graduate from high school: During the next year, do you think you will drink beer, will get drunk or drink a lot of alcohol at one time?; Before you leave high school, do you think you will drink beer, do you think you will get drunk or drink a lot of alcohol at one time? The pretest alpha assessing reliability of the index was .92 and at posttest it was .93.

Media Literacy Lesson Manipulation: To assess whether or not participants in the treatment groups perceive two types of media literacy differently, the following three questions were asked on a 7-point scale on which 1 means "strongly disagree" and 7 means "strongly agree": This lesson taught me about things that are good in media messages; Today's lesson only taught me about things that are bad on TV; Today's lesson taught me about things that are both good and bad on TV; Today's lesson focused

on good things on TV. Because each question was analyzed individually, reliability score was not computed.

Knowledge (manipulation check): To ensure that media literacy lesson-recipients better comprehend the program materials than participants in the control group, the main researcher selected key issues addressed in each lesson component to assess participants' level of knowledge. Students who did not receive the lesson would have a relatively difficult time to correctly answer these questions. Six questions were selected: People like you spend an average of ___ hours with the TV everyday (answer categories: 2.5 hrs, 4.5 hrs, 5.5 hrs, 6 hrs, 8hrs); Popular TV programs, such as *Grey's Anatomy* and *The Simpson*, charge 1 million for a one-minute ad (answer category: Yes/No); Alcohol advertising uses different ad hooks (techniques) to get my attention (answer category: Yes/No); When I watch TV, I am the product that is sold to the advertisers by TV networks (answer category: Yes/No); Five teens are killed in the United States every 60 minutes because of teen drunk driving (answer categories: Yes/No); Advertisers spent __ billion on alcohol advertising each year (answer categories: 2, 4, 8, 10, 20).

Program evaluation: The following six questions were used to ask participants' receptiveness toward *TeenSmart TV* program on a 7-point scale on which 1 means "strongly disagree" and 7 means "strongly agree": Today's lesson has taught me things I did not know before; The lesson will be useful for me; I enjoyed today's lesson very much; The presenter of *TeenSmart TV* program knew what she was talking about; The *TeenSmart TV* program made me think; Compared with other alcohol education programs I have had, today's lesson was much worse, somewhat worse, somewhat better, much better. The alpha was .90.

Pro-Health Entertainment Programs Measures

The following measures, especially the ones related to emotional/cognitive engagement and narrative realism, were largely adapted from Busselle and Bilandzic (2008) with minor revisions attending to middle and high school students' reading comprehension abilities. Unless otherwise noted, measures were assessed on seven-point Likert-style scales on which 1 indicated "Never" and 7 indicated "Often." See Table 5.

Table 5 about here

Measures of realism and narrative realism were entered into the principal factor analysis with Varimax rotation. It yielded three factors with a total of 65.87% variances explained by three factors: General realism (14.48% of variances explained), narrative realism (10.22% of variances explained), and realism pertaining to alcohol portrayals (41.16% of variances explained). See Table 6 for factor loadings.

Table 6 about here

Similar to skepticism and media skepticism measures in pretest and posttest, questions pertaining to critical thinking, believability of the show, and skepticism were factor analyzed. Two distinct factors were revealed in principle actor analysis with Varimax rotation. The factor labeled as "EE-trust" was composed of six items with 17.03% of variances explained, and the factor labeled as "EE-Skepticism" was composed of six items with 47.63% of variance explained. See Table 7 for factor loadings.

Table 7 about here

EE-trust: The following six questions were used to assess whether or not participants believed the show they just watched: The show I just watched tried to tell me good things; This show was honest about what happened when people drink too much; This show accurately portrayed the consequences of drinking; You can believe everything you see in this show; I trust what the show told me about alcohol use; TV is a trustworthy source for the consequences of alcohol overdose. The alpha assessing reliability of the index was .84.

EE-skepticism: The following six questions asked participants' ability of seeking additional information to verify what they see on TV: I seek out additional information to confirm things I learn from TV; I think about things I see on TV before I accept them as believable; It's important to think twice about what TV says; I think about why someone created a message I see on TV; I think about how someone created a message I see on TV; I think about what the creator of a message wants me to think. The alpha assessing reliability of the index was .90.

General realism: The following three questions were used to assess participants' perceptions of general realism depicted in the show they just watched: Many people act like people in this show acted; Many people look like people in this show; Many people do things that people in this show did. The alpha assessing reliability of the index was .72.

Narrative realism: The following two questions were used to assess narrative realism: I understood why the events happened the way they did; At some points, I had a hard time making sense of what was going on in the program (recoded). These two items correlated at r=.28 (p<.001).

Realism pertaining to alcohol portrayals: The following five questions were used to assess participants' perceptions of whether or not alcohol use depictions they just saw were realistic: The story was convincing; This program showed how people act when drinking alcohol; Things that happened on this show happen in real life; The show I just watched showed what truly happened when you drink too much; The characters showed me what would happen if I got drunk. The alpha assessing reliability of the index was .84.

EE-desirability: The following four questions were used to assess participants' perceived desirability after watching the show: Characters in this show did fun things; I like the people in this show; Characters in this show were attractive; The characters in the show I just watched seemed to have fun. The alpha assessing reliability of the index was .60.

EE-similarity: The following five questions were used to measure participants' perceived similarity after watching the show: People in the show I just watched were similar to people around me; Young people in the show I just watched were like people in my family; I like the drinking behavior of the characters in this show; Things that happened in this show often happen to people like me; Young people in this show were like my friends. The alpha assessing reliability of the index was .74.

EE-identification: The following five questions were used to measure participants' desire to emulate the behavior depicted by the characters of the show they just watched: I wish I could be like the people I see on TV; I wish I could do things that characters on TV do; I want to be like the main character in this show; It would be fun to look like the main characters in this show; People in this show do things I want to do. The alpha assessing reliability of the index was .81.

EE-Positive expectancies: The following six questions were used to measure positive expectancies of alcohol drinking: Drinking alcohol makes a person happy; helps make a person have more fun; makes a person more grown-up; helps a person make more friends; helps a person feel relaxed; helps a person feel confident. Note that these questions were identical to the questions in the media literacy measurements. The researcher felt that it is necessary to use identical measures here as they accurately depict the process by which the main characters go through, even with a potential threat to internal validity because of repeated testing. The alpha assessing reliability of the index was .86.

EE-Negative expectancies: The following five questions were used to measure negative expectancies of alcohol drinking: Drinking alcohol could get a person in trouble with your parents; could make a person feel sick to stomach; can harm a person's health; could get a person arrested; will get a person into trouble with the police. Note that these questions were identical to the questions in the media literacy measurements. The alpha assessing reliability of the index was .86.

EE-Self-efficacy: The following four questions were asked to assess participants' perceived self-efficacy: I can influence whether my friends use alcohol; I can talk to

friends about the danger of alcohol use; I can resist the influence beer ads have on me; I feel comfortable saying no to people if they offer me alcohol. Note that these questions were identical to the questions in the media literacy measurements. The alpha assessing reliability of the index was .78.

EE-behavioral intention: The following four questions were used to assess participants' intention to drink alcohol next year and before they graduate from high school: During the next year, do you think you will drink beer, will get drunk or drink a lot of alcohol at one time?; Before you leave high school, do you think you will drink beer, do you think you will get drunk or drink a lot of alcohol at one time? Note that these questions were identical to the questions in the media literacy measurements. The alpha assessing reliability of the index was .93.

EE-emotional engagement: The following seven questions were used to assess participants' perceived entertainment value after watching the show: The show I just watched was entertaining; I could feel the emotions the characters felt during the show; When a main character suffered in some way during the program, I felt sad; I enjoyed the show I just watched; The show I just watched was boring (recoded); I care about the characters in this show; I was still thinking about what happened in the show after it was over. The alpha assessing reliability of the index was .87.

EE-cognitive involvement: The following three questions were used to assess participants' involvement in the show they just watched: I can feel that what happened to the characters can happen to me too; I paid full attention to the show; I was very involved in the show I just watched. The alpha assessing reliability of the index was .71.

EE-educational value: The following three questions were used to assess whether or not participants perceived the show they just watched was educational: I learned something about alcohol that I didn't know before; This show taught me something new; This show was educational. The alpha assessing reliability of the index was .77.

CHAPTER FOUR

RESULTS

Demographic Information of the Participants

A total of 171 students participated in the *TeenSmart TV* program with 57 in the negative condition, 60 in the balanced condition, and 54 in the control condition. Among these 171 students, 47 of them watched *Dawson's Creek*, 51 watched *Saved by the Bell-New Class*, and 73 watched *One Tree Hill*. See Table 8 for a detailed breakdown of the media literacy participants in entertainment-education conditions.

Table 8 about here

The sample included 87 (50.9%) males and 84 (49.1%) females. The majority of the sample identified themselves as Caucasian (*n*=154, 91.7%), followed by 16 Latinos/Latina/Hispanic (9.5%), 9 Native Americans (5.4%), 5 Asian Americans (3.0%), 5 African Americans (3.0%), and 5 participants indicated themselves as others (3.0%). Note that adolescents can identify themselves with more than one ethnic heritage. Demographic information provided by the students was consistent with the state demographic profile (U.S. Census Bureau, 2000).

The average age of participants was 14.03, with a range from 12-18. The majority of the participants were in the 7th grade (38.0%), followed by 9th grade (29.8%), 10th grade (22.2%), and 8th grade (9.9%). In terms of socioeconomic status, most of them were from the middle to upper income family (*n*=104, 60.8%). The socioeconomic status information given by the students contrasted drastically from what the school teachers

had told the main researcher. It is possible that students could not accurately assess their household income and therefore a discrepancy occurred.

Differences in Demographic Information across Media Literacy Conditions

To examine whether there were differences in demographic information across three media literacy conditions, Chi-Square analysis was used to examine gender and ethnicity differences. Analysis of Variance was used to examine other continuous demographic variables. Chi-square statistic revealed that the percentages of male and female participants were not significantly different in three media literacy conditions. There also were no differences across three conditions on the ethnicity variable. Further, a series of Analysis of Variance was conducted with condition entered as a fixed factor and demographic variables, including age and grade level, entered as dependent variables. Significant differences were found. Post-hoc analysis with Bonferroni correction revealed that participants in the negative condition (M=13.70, SD=1.48) were slightly younger than participants in the balanced condition (M=14.45, SD=1.32), $F(2, 167)=3.84$, $p<.05$. This significant difference also was reflected on the grade level differences between the negative and balanced conditions, $F(2, 168)=3.49$, $p<.05$.

Differences in Pretest Measures across Media Literacy Conditions

A series of Analysis of Variance analyses were conducted to examine whether participants in three media literacy conditions differed in pretest measures. All of the analyses were not significant, indicating that participants in three conditions had equal levels of attitudes toward alcohol use and the media prior to the media literacy treatment.

Manipulation Check

Knowledge across Three Conditions: To examine whether or not participants who received the media literacy lessons gained more knowledge after the lessons than participants who were in the control group, a series of chi-square statistics was performed. Before conducting the chi-square analyses, a new condition variable was created. Negative and balanced groups were combined as the treatment groups in order to compare against the control group. The manipulations proved to be successful. Participants in the treatment groups were more likely to correctly answer knowledge questions than participants in the control group. See Table 9 for detailed information on the manipulation check results.

Table 9 about here

Perceived lesson differences between negative and balanced conditions: The purpose of this manipulation check is to measure whether or not participants in the negative condition perceived the media literacy lesson to be more negative than participants in the balanced condition. Three Analysis of Variance analyses were conducted with condition being the independent variable and three questions of lesson types entered as the dependent variables. All of the three findings indicated that the manipulations of lessons were successful. The first result showed that participants in the negative condition (M=4.67, SD=1.87) were more likely to agree that the lesson only taught them about things that are bad on TV than participants in the balanced condition (M=3.53, SD=1.81), $F(1, 114)=11.11$, $p<.001$. The second result demonstrated that

participants in the balanced condition (M=5.41, SD=1.76) were more likely to agree with the statement that "today's lesson only taught me about things that are both good and bad on TV" than participants in the negative condition (M=3.61, SD=1.99), $F(1, 114)=26.44$, $p<.001$. Finally, participants in the balanced condition (M=3.28, SD=1.64) were more likely to agree that "today's lesson focused on good things on TV" than participants in the negative condition (M=2.02, SD=1.19), $F(1, 114)=22.12$, $p<.001$. See Table 10 for detailed descriptive statistics.

Table 10 about here

Hypotheses and Research Question Testing

To understand whether the media literacy curriculum impacted adolescent boys and girls differently (RQ1), a series of Analysis of Covariance Analysis (ANCOVA) were conducted with the sex variable entered as a fixed factor along with the condition variable, the pretest variable entered as a covariate, and the posttest variable entered as a dependent variable in the following hypotheses and research question testing. When the hypotheses tested differences between the experimental and the control group, a new condition variable was formed. The critical and balanced conditions were combined to form a treatment group, whereas the control condition remained as the comparison group. The only difference between the control group participants and the treatment group participants was the media literacy lessons treatment group participants received. The control group participants did not receive any media literacy lesson until they completed the pretest and posttest instruments and a pro-health entertainment instrument after

watching a randomly selected pro-health entertainment clip. Also, when appropriate, log transformation was performed on skewed dependent variables to correct a lack of normality (Bland, 1996; Keene, 1995).

When significant or near significant effects emerged from ANCOVA, planned group contrasts were used to determine how the different lessons affected students' decision-making process. Planned group contrasts are often driven by theoretical assumptions or prior empirical research, and conducting multiple planned group contrasts did not violate type I error (Rosenthal & Rosnow, 1985).

For a series of H4 that tested the impact the two media literacy lessons had on adolescents' perception of pro-health entertainment, ANCOVA was conducted. Condition and sex were entered as the fixed factors and the tested variable was entered as a dependent variable. Participants' pretest media skepticism was controlled as a covariate to better assess their attitudes toward pro-health entertainment programs.

Lastly, for RQ2 that examined whether two media literacy lessons affect other decision-making factors, a series of ANCOVA was conducted. Condition and gender were entered as fixed factors and the tested variable was entered as a dependent variable while controlling for the corresponded pretest measure and pretest media skepticism. For example, when analyzing whether the result of general realism differed depending on the condition and gender, condition and gender were entered as fixed factor, general realism was entered as a dependent variable, and pretest realism and pretest skepticism were entered as covariates. The procedure ensured a more accurate observation of how participants' original responses toward realism and skepticism affected their responses to general realism after watching an episode of pro-health entertainment programming.

Testing Differences across Conditions by Age

Prior research on instructional approaches has investigated the extent to which age of the participants influences their receptiveness to media education. Even though the current study did not specifically focus on age, Analysis of Covariance Analysis was run with age and condition entered as fixed factors, the pretest score entered as a covariate and the posttest score entered as a dependent variable. Findings revealed that age was not a crucial factor that determined adolescents' perceptions of media literacy and pro-health entertainment. Thus, the current study only focused on gender.

Testing Differences between the Experimental and the Control Group

H1a predicted that media literacy training would produce significant differences between the experimental groups (negative and balanced conditions) and the control group on key MIP model outcome variables (i.e., realism, desirability, identification, positive expectancies, negative expectancies, self-efficacy, and behavioral intention). Significant differences were only observed for realism and self-efficacy.

There was a gender difference in perceived realism, an index that was transformed to correct normality. Girls (M=.58, SD=.16) were somewhat more likely to perceive that the characters on TV were like people in real life than boys (M=.53, SD=.20), $F(1, 166)=3.30$, p=.07. For self-efficacy, participants in the control group (M=6.14, SD=1.14) were slightly more efficacious than participants in the treatment groups (M=5.89, SD=1.43), $F(1, 165)=2.89$, p=.09, even though the differences did not reach a significant level. The findings were opposite from the hypothesized direction and therefore H1a was not supported.

H1b asked whether there were differences between the experimental groups and the control group on advertising skepticism and skepticism toward the media. No difference was found for advertising skepticism. As for skepticism toward the media, there was a significant interaction effect of condition and gender, $F(1, 166)=8.31$, $p<.01$. A contrast analysis showed that girls ($M=3.59$, $SD=1.34$) in the treatment condition were more skeptical toward the media than boys ($M=2.98$, $SD=1.07$) in the treatment condition, $t(82)=2.06$, $p<.05$. Based on the mixed results, H1b was partially supported. See Figure 2 for the interaction effect.

Figure 2 about here

Testing Differences among Critical, Balanced, and Control Groups

H2a predicted differences between the *critical* and the *control* groups on key MIP model measures. No significant differences were found for other measures but an interaction effect of condition and sex was found for perceived realism, $F(2, 164)=3.09$, $p<.05$. Boys in the *critical* condition ($M=.44$, $SD=.17$) had the lowest level of realism than boys in the *control* condition ($M=.53$, $SD=.12$), $t(84)=-2.26$, $p<.05$. H2a was partially supported. See Figure 3 for the interaction effect of realism.

Figure 3 about here

H2b predicted that participants in the *critical* condition would score lower than those in the *balanced* condition on the key MIP model measures but score high on self-

efficacy. There were significant differences only in realism and negative expectancies. For perceived realism, a contrast analysis revealed that boys in the *critical* condition (*M*=.44, *SD*=.17) had a lower level of perceived realism than boys in the *balanced* condition (*M*=.51, *SD*=.14), *t*(84)=-1.79, *p*=.08, even though the difference was not significant.

As for negative expectancies, a contrast analysis revealed that participants in the *critical* condition (*M*=6.39, *SD*=.88) had a higher level of negative expectancies than participants in the *balanced* condition (*M*=6.00, *SD*=.97), *t*(168)=2.30, *p*<.05. H2b was partially supported. See Figure 4 for the interaction effect of negative expectancies.

Figure 4 about here

H2c predicted that participants in the *balanced* media literacy condition would score low on the MIP model measures and high on the self-efficacy when compared to participants in the *control* condition. No group differences were found for all of the variables but for negative expectancies. In contrast to the hypothesized direction, participants in the *control* groups (*M*=6.38, *SD*=.94) had a higher level of negative expectancies than participants who received the *balanced* media literacy lesson (*M*=6.00, *SD*=.97), *t*(168)=-2.16, *p*<.05. In addition, an interaction effect of condition and sex found that boys in the *control* condition (*M*=6.36, *SD*=1.03) also had more negative expectancies than boys in the *balanced* condition (*M*=5.65, *SD*=1.06), *t*(84)=-2.90, *p*<.05. Overall, participants in the balanced conditions turned out to have the lowest scores on negative expectancies. In other words, participants who received the balanced media

literacy lesson didn't think that drinking brings negative physical and social consequences as much as participants in the negative media literacy condition and the control condition. The result contradicted the hypothesized direction. H2c was not supported.

H3a predicted that participants in the *critical* condition would have higher degrees than participants in the *control* groups on advertising skepticism and skepticism toward the media. A significant interaction effect was found only for media skepticism, $F(2, 164)=4.16$, $p<.05$. Yet, further contrast analyses showed that there were no differences between participants in the critical and control conditions. H3a was not supported.

H3b predicted that participants in the *critical* media literacy training would be more skeptical toward advertising and would have a higher level of skepticism toward the media than would participants in the *balanced* condition. No differences were found from the contrast analyses. H3b was not supported.

H3c predicted that participants in the *balanced* condition would be more skeptical toward advertising and would have a higher level of media skepticism than would participants in the *control* condition. Only the significant effect of media skepticism was found, as indicated by the interaction effect mentioned in H3a. Further analysis indicated that girls in the *balanced* condition ($M=3.68$, $SD=1.33$) had a higher level of media skepticism than girls in the *control* condition ($M=2.98$, $SD=1.07$), $t(81)=2.06$, $p<.05$. H3c was partially supported. See Figure 5 for the interaction effect.

Figure 5 about here

Testing Whether Media Literacy Impacted Pro-health Entertainment

H4, in general, predicted that participants who received the media literacy training would view entertainment-education program differently than those who did not receive the training. Specifically, H4a predicted that participants who received any type of media literacy training would have a lower level of trust and have a higher level of skepticism toward pro-health entertainment programs than will participants in the control condition.

No difference was found for the trust variable. Yet, there was an interaction effect of condition and sex on media skepticism variable, $F(1, 166)=7.57$, $p<.01$. A contrast analysis found that girls who received either type of media literacy training ($M=4.32$, $SD=1.53$) had more skepticism than girls who did not receive any lesson ($M=3.38$, $SD=1.18$), $t(82)=2.80$, $p<.01$. H4a received partial support. See Figure 6 for the interaction effect of media skepticism.

Figure 6 about here

H4b predicted that participants in the media literacy training focusing on *critical* evaluations would have a lower level of trust toward and have a higher level of skepticism toward the entertainment-education program than would participants in the *control* condition. No differences were found. H4b was not supported.

H4c predicted that participants in the *critical* condition would have a lower level of trust and a higher level of skepticism toward pro-health entertainment programs than participants in the *balanced* condition. An interaction of condition and sex was found for

trust, $F(2, 164)=3.23$, $p<.05$. Results were at the opposite side of the hypothesized direction. A contrast analysis revealed that boys in the *critical* condition ($M=4.87$, $SD=1.22$) had more trust toward the entertainment programming depictions of alcohol misuse consequences than boys in the *balanced* condition ($M=4.08$, $SD=1.45$), $t(84)=2.22$, $p<.05$. Thus, H4c was not supported. See Figure 7 for the interaction effect of trust toward alcohol misuse consequences in entertainment programs.

Figure 7 about here

As for the skepticism variable, a significant interaction effect of condition and gender was found, $F(2, 164)=4.01$, $p<.05$, yet no differences were found between the *critical* and *balanced* conditions.

H4d predicted that participants in the *balanced* condition would have less trust and more skepticism toward pro-health entertainment programs than participants in the *control* condition. A contrast analysis showed that boys in the *balanced* condition ($M=4.08$, $SD=1.45$) had the least trust toward the show they just watched than boys in the *control* condition ($M=4.84$, $SD=1.41$), $t(84)=-2.12$, $p<.05$. No other differences were found among girls between these two conditions.

For media skepticism, a contrast analysis showed that girls in the *balanced* media literacy condition (M=4.32, $SD=1.53$) had a higher level of skepticism than girls in the *control* groups ($M=3.38$, SD=1.18), $t(82)=2.80$, $p<.01$. H4d received mixed support.

Additional Analyses on RQ2

RQ2 was proposed to explore whether media literacy training facilitates or interferes with adolescents' perceptions of pro-health entertainment programs. Specifically, adolescents' interpretations of the programs based on the MIP model, including realism, desirability, similarity, identification, expectancies, self-efficacy, and behavioral intention, as well as their opinions about the plots, including cognitive involvement, emotional involvement, and educational values of the shows, were asked. The results were addressed below.

General realism: When comparing the differences between the treatment and the control groups, the treatment groups had a somewhat lower level (M=3.74, SD=1.34) than the control groups on perceived realism of the programs (M=4.10, SD=1.42), F(1, 165)=3.368, p=.07. Girls also thought that pro-health entertainment groups were somewhat realistic (M=4.07, SD=1.34) than boys (M=3.64, SD=1.37), F(1, 165)=2.89, p=.10. Even though the differences were not significant, the trends still deserved some attention.

When comparing the differences across three different manipulation conditions, there was a significant sex effect, F(1, 164)= 4.19, p<.05. Girls (M=4.07, SD=1.34) in general were more likely than boys (M=3.64, SD=1.37) to perceive that people on the show were like people in real life.

Narrative realism: No significant differences were found.

Realism pertaining to alcohol portrayals: When testing the differences between the treatment and control groups, and across three manipulation conditions were compared, a significant sex effect was found. The effect from the comparison across three conditions were reported here, F(1, 164)= 7.20, p<.01. Girls (M=5.47, SD=1.14), in

general, were more likely than boys (*M*=4.95, *SD*=1.39) to perceive that alcohol misuse depictions in the show they just watched were realistic and accurate.

EE-desirability: No differences were found between the treatment groups and the control groups. Yet, an examination across three conditions yielded a sex effect, $F(1, 163)= 3.10$, $p=.10$, even though the difference was not significant. Girls (*M*=3.34, *SD*=1.34) were somewhat more likely than boys (*M*=3.24, *SD*=1.04) to perceive characters in the show they just watched were desirable, even though the differences did not approach significance.

EE-similarity: The treatment groups somewhat perceived the characters in the programs to be more similar to them (*M*=.35, *SD*=.19) than the control groups (*M*=.29, *SD*=.22), even though the differences were not significant, $F(1, 165)=3.99$, $p<.05$.

When compared across three conditions, however, a significant condition effect emerged, $F(2, 163)= 3.10$, $p<.05$. There was a slight difference between the *balanced* condition (*M*=.38, *SD*=.18) and the *critical* condition (*M*=.32, *SD*=.19), $t(168)=-1.84$, $p=.07$. The *balanced* media literacy program in fact promoted a heightened level of perceived similarity. In general, participants in the *balanced* condition (*M*=.38, *SD*=.18) were more likely than participants in the *control* condition (*M*=.29, *SD*=.22) to think that characters on TV were similar to friends and family members, $t(168)=2.37$, $p<.05$. See Figure 8 for the interaction effect of similarity.

Figure 8 about here

EE-identification: No significant effects were found.

EE-positive expectancies: No significant effects were found.

EE-negative expectancies: Interestingly, when comparing the treatment groups to the control groups, the control groups (M=6.58, SD=.74) had a higher degree of negative expectancies than the treatment groups (M=6.30, SD=1.06), $F(1, 163)=4.13$, $p<.05$. This result contradicted with prior findings and was probably caused by combining the positive and the critical conditions together.

When compared across three conditions, however, the findings became clearer than the previous result. A significant condition effect, $F(2, 164)= 4.73$, $p<.01$, a significant sex effect, $F(1, 164)= 4.26$, $p<.05$, and a significant interaction effect of condition and sex, $F(2, 164)= 3.02$, $p<.05$, were found. For the significant condition effect, contrast analyses revealed that no differences were found between the *critical* and *control* conditions. Participants in the *critical* condition (M=6.52, SD=.97) had a higher level of negative expectancies than participants in the *balanced* condition (M=6.11, SD=1.11). Additionally, participants in the *balanced* condition had the lowest perceived expectancies in comparison to participants in the *control* condition (M=6.59, SD=.74).

In terms of the sex effect, girls (M=6.56, SD=.89) had a higher level of negative expectancies than boys (M=6.24, SD=1.03). In terms of the interaction effect, the results were consistent with the main condition effect finding. Contrast analyses showed that boys in the *critical* condition (M=6.59, SD=0.65) had a highest level of negative expectancies than boys in the *balanced* condition (M=5.75, SD=1.24), $t(84)=3.35$, $p<.001$. Also, boys in the *balanced* condition had the least amount of negative expectancies in comparison to boys in the *control* condition (M=6.47, SD=0.85), $t(84)=-$

2.89, $p<.01$. See Figure 9 for the interaction effect of trust toward alcohol misuse consequences in entertainment programs.

Figure 9 about here

EE-self-efficacy: Comparing between the treatment groups and the control groups, no differences were found. Yet, there was a significant condition effect, $F(2, 162)=2.98$, $p<.05$ when compared across groups. Participants in the *critical* condition ($M=.78$, $SD=0.10$) had a higher level of self-efficacy than participants in the *balanced* condition ($M=.73$, $SD=.17$).

EE-behavioral intention: No significant differences were found.

EE-emotional engagement: For the comparison between the treatment groups and the control groups, a significant sex was found, which also was detected when comparing the differences across three conditions. Thus, the differences across three groups were primarily reported below. A significant sex effect and a significant interaction effect were found. In general, girls ($M=4.28$, $SD=1.34$) were more emotionally engaged than boys ($M=3.45$, $SD=1.44$), $F(1, 164)=15.44$, $p<.001$.

Further, a contrast analysis of the interaction effect found that girls in the *balanced* condition ($M=4.65$, $SD=1.30$) were more emotionally involved in the plots than girls in the *critical* condition ($M=3.90$, $SD=1.28$), $t(81)=-2.14$, $p<.05$. See Figure 10 for the interaction effect of emotional engagement.

Figure 10 about here

EE-cognitive involvement: No major significant differences were found when comparing the treatment groups and the control groups.

As for the comparisons across three conditions, effects of condition, $F(2, 164)= 2.73$, $p<.07$, sex, $F(1, 164)= 5.19$, $p<.05$, and interaction of condition and sex, $F(2, 164)= 7.30$, $p<.001$, were found for the cognitive involvement variable. In general, participants in the *critical* condition ($M=5.19$, $SD=1.41$) paid more attention to the show than those in the *balanced* condition ($M=4.65$, $SD=1.55$) as revealed by the contrast analyses, $t(168)=2.04$, $p<.05$. Also, girls ($M=4.28$, $SD=1.34$) had a higher level of cognitive involvement than boys ($M=3.45$, $SD=1.44$).

In terms of the interaction effect of condition and sex, contrast analyses demonstrated that boys in the *critical* condition ($M=5.38$, $SD=1.48$) were more cognitively involved than boys in the *balanced* condition ($M=4.94$, $SD=1.44$), $t(84)=3.50$, $p<.001$. Also, boys in the *control* condition were more involved than boys in the *balanced* condition ($M=3.91$, $SD=1.56$), $t(84)=-2.63$, $p<.05$. See Figure 11 for the interaction effect of cognitive involvement.

Figure 11 about here

EE-education value: No significant differences were found between the treatment and the control groups.

As for the comparisons across three conditions, there only was a significant sex effect on educational value, $F(1, 164)=4.21$, $p<.05$. Girls ($M=.49$, $SD=.21$), in general, perceived the show to be more educational than boys ($M=.46$, $SD=.23$), $t(169)=-2.06$, $p<.05$.

Please see the Table 11 for the overall result summary. Note that the summary only covered multiple group contrasts. Differences between the treatment and the control groups were absent from Table 11.

Table 11 about here

Overall TeenSmart TV Program Evaluation

Students who received *TeenSmart TV* were asked how they thought about the lesson in comparison to similar alcohol prevention education they have received. On average, students reported the program was somewhat better than the one they had received before ($M=3.79$, $SD=.92$). Students highly agreed that the presenter of *TeenSmart TV* program knew what she was talking about ($M=6.11$, $SD=1.44$) and said that the program made them think ($M=5.16$, $SD=1.83$). Students also expressed that the lesson taught them things they did not know before ($M=4.80$, $SD=2.06$) and they enjoyed the lesson ($M=4.66$, $SD=1.92$). They also said that the lesson was useful ($M=4.97$, $SD=1.86$) and interesting ($M=4.87$, $SD=1.81$). Overall students were positive about the program.

Qualitative Analyses of Students' Perceptions of the Program

7th graders at the first school were asked to write down their feedback on *TeenSmart* TV. The purpose of the written responses to the program was to first help media literacy educators understand students' baseline understanding of the media. Second, comments could provide insights of students' liking and dislikes about the program components and could improve future media literacy lesson design and implementation.

In addition to providing thoughts about the alcohol advertisements and an entertainment program they watched, some students mentioned that they enjoyed the program, while some of them expressed that they were already familiar with some of the topics covered. It is possible that the media literacy lesson reinforced what students have learned from their health education, given that the lesson covered alcohol misuse consequences. Also, students who already knew how the media and advertising work often perceived the lesson to be boring, whereas students who were not media literate thought that the program was educational and said that the program taught them something new. The detailed feedback is described below.

General Comments on TeenSmart TV lesson: Comments on the program seemed to situate on the opposite end of the spectrum. Students either enjoyed it or disliked the program because they already knew the majority of the program. Other students, even though they learned things about media and health consequences of alcohol misuse, still said that they enjoyed the program. In addition, some students commented on the repetition of the surveys and seemed not to like filling out the instruments. Extensive instruments and evaluations are needed to verify the utility of media education yet it also

shows that participants' fatigue could influence the validity of the results. It definitely is a concern that media literacy researchers need to address in the future.

Positive comments on the program:

- I seemed to like this program better than the other alcohol programs. The teachers were nice and fun, and I learned a few more things from this.
- I liked the presenters and the clips because the presenters talked to us a lot and showed us diagrams.
- The program…showed me how to resist drinking and alcohol.
- I like the fact that you are teaching us something good for us and helpful.
- I really liked it. I learned that commercials for beer are also aimed at kids my age. It was fun having you. Thank you.
- I thought that this program was very entertaining and it taught a lot of unknown things about alcohol. I learned the 8 billion is spent on alcoholic beverage commercials.
- I generally like the program, although I already knew nearly all the information in it.
- I did like this program because now I can tell younger and older people about the effects of alcohol. I also know where I can find these sites to help them to understand. Thank you.
- I liked how they had us watch a movie then take a survey about it. I also thought they asked serious questions.

- I liked this program very much. I learned a lot more than I used to. The presenters were both friendly and nice and thanks to them I gained a lot of useful information.
- I thought the presenters did a good job picking out clips and stuff to show us. I learned a lot about ad hooks and different kinds of ads and ways to make us think differently.
- What I like about this program is that it was focused around advertisement and media instead of just pounding into our heads that "drinking underage is bad." We already know that, so it's nice to have a lesson focused on something more specific.
- I've never had a class that taught us about what to watch for on TV; and I think it's important to know.
- Everything I've seen for the past two days makes me want to never drink at all.
- I enjoyed the examples that you had to present to us. It is a better way of teaching and I think you should continue.
- The program was very educational. The instructors were very talented and fun.
- These lessons have been very fun and informative. I did like them a lot even though I already know most of what you taught.

Lukewarm comments on the program:

- I didn't learn much, I thought it was kind of elementary.

- I think it is good for kids to learn this. I didn't learn much because I already have [learned] from school and other places, but it can help other kids.
- It [the lesson] could've been a little more entertaining. It was good but it didn't really grab me. I think that it was dumb that it was so biased, and that you didn't present the other side whatsoever, and without these commercials we wouldn't be able to watch good shows.
- I didn't like all the writing we had to do.
- I think it was kind of boring. But the movie taught me a lot! And I really have thought about commercials that way.
- I thought it was very boring…because I know it all already.
- The program is okay and maybe use it for 4, 5, 6 graders or even 9th graders because it's more likely that they would be doing stupid stuff like drinking but I am not trying to offend them just a suggestion.

*Comments on alcohol advertising and entertainment show*s: Students expressed that they liked the alcohol advertisements and video clips. The visual effects of the media, particularly alcohol advertising, tended to grab their attention and helped students to be more involved in the class discussions. Yet, some of the students thought that the pro-health entertainment programs could be boring as two students said that they disliked *Dawson's Creek*. No specific reasons were given, however.

- I liked the videos and the first commercial was funny.
- I like watching the movies and having conversations.

- I liked that clip [*Saved by the Bell-New Class*] we just watched because it was really entertaining and it was more real of what happened.
- I thought the show [*Dawson's Creek*] we watched was very true. I've heard people puke at night a lot.
- The *Saved by the Bell* show was really boring. I didn't learn anything new.

Students' reflective thinking about the lesson: In addition to writing down their comments about the program, some students reflected on the lesson they received, particularly thoughts about the purpose alcohol advertisers and alcohol use in general.

- I like animals but I don't like how people use them for ads for beer ads.
- People use cute animals to get the ad out.
- I think beer is really dumb and no one should drink.
- How people who sell alcohol on TV get so much money.
- I think after I watched that clip [*Dawson's Creek*], I felt that I can be more careful on what those kinds of things do to you. It helped understand things I never thought about.
- I learned that a teen dies every 60 minutes from drunk driving.
- I thought that this program we did was very cool and really caught my attention. I have been seeing real bad commercials lately about people getting drunk and having a great time. It was not good for people that are young.

Suggestions for media literacy programs: Some students mentioned some suggestions to improve the media literacy lesson they received.

- A Q/A time would be good with the whole class.
- I would like to know how many kids have been arrested for under age drinking.
- More real videos on what happens when you drink. [The student watched *Saved by the Bell-New Class* episode.]
- I liked this program very much but I think we could've watched more advertisements and identify what kind of things the advertisers are using (humor, animals, etc).
- You should show some more movies.
- Can we watch more ads?

Barriers to alcohol prevention education: There are barriers to implement substance use prevention programs at school settings, particularly when the programs are not taught directly by the school teachers. Parents might be reluctant to give out consents as some of them tend to shield their child from discussing any substance-related topics.

- I do dislike drugs but my mom doesn't think I should learn about them right now.

CHAPTER FIVE

METHOD AND RESULTS OF A POST-HOC EXPERIMENT

Rationale for a Post-Hoc Experiment

Experiment 1 examined the effects of critical and balanced media literacy lessons on adolescents' attitudes toward pro-health entertainment programs. The critical lesson had the most impact on adolescent boys, as they reportedly had the largest degrees of negative expectancies and skepticism after watching a show. Adolescent girls benefited from the balanced lesson as their critical thinking skills persisted even after watching an entertainment program.

As addressed in the prior literature review regarding media education, media literacy has rarely utilized a positive mediation strategy with regard to the media content. The results from experiment 1 suggest that lesson-recipients probably could not absorb the complexity of the type of lesson that discussed both alcohol advertising and television programs manipulation of audiences. As a result, it seems useful to condense the lesson to include only the discussion of television industry and television programming to explore whether or not adolescents perceive a pro-health entertainment program differently after this type of lesson.

Additionally, given that some of the results with respect to the balanced media literacy lessons in experiment 1 were quite puzzling, the present experiment tested two different types of media literacy programs (e.g., positive vs. critical strategies) in addition to a control group to tease out the effects of positive mediation from the balanced media literacy program. The goal of experiment 2 was to further investigate whether participants' views toward the entertainment program would be affected by the positive

and negative media literacy lessons. Experiment 2 also explored the possibility of employing a positive teaching strategy in mediating youngsters' responses to a pro-health entertainment program.

Experimental Materials

As mentioned above, there were some similarities and differences between experiment 1 and experiment 2. Experiment 2 concentrated entirely on *either* the positive *or* the negative aspects of television programming, particularly the one with alcohol portrayals, without any discussions of alcohol advertising. Consistent with experiment 1, media literacy lessons were instructed with a combination of statement- and question-based teaching techniques.

Positive instructional approach: The purpose of the positive condition was to shy away from the traditional media-bashing techniques and to showcase the positive aspect of television programming. The positive instructional condition, therefore, featured good aspects of television programs. Articles published on the Center for Media Literacy Website discussing the positive aspect of entertainment programs, for example, were served as references to discussing good television with lesson-recipients (Montgomery, nd; Thoman, nd).

In addition, given that little research has specifically studied the effects of positive comments about television on individuals' perceptions of a pro-health entertainment program, the present study took an opposite approach from the more common approach to media education, which criticizes how television production techniques glamorize and misrepresent things people see on television. Specifically, the positive instructional approach mentioned that television can be good for viewers. Students learned that

television producers can have their best interests in mind and actors can be positive role models teaching them things *not* to do. Students were taught that some television programs consult with medical professionals when any medical information is mentioned. Additionally, students were primed to think about whether entertainment programs can provide positive examples teaching viewers pro-social behaviors.

Critical instructional approach: The purpose of the negative condition was to make lesson-recipients question the true purpose behind each television program and the intention of the television industry. In contrast to the positive instructional approach, the negative instructional approach primarily focused on the ways television programs manipulate the audience. For example, students were taught that television producers often do not have viewers' best interests in mind and actors were simply told how to act. Even when television programs accurately show alcohol misuse consequences, they, in fact, attract more alcohol advertising in the commercial slots than any other television programs without showing alcohol misuse outcomes (Center for Media Literacy, 2005). In addition, students were asked to think twice about whether actors drink real alcohol and whether things are accurately represented in the shows. Students were then told that everything on television is designed to get the audiences' attention and they can make a good health decision for themselves without being told what to do by the media.

Procedures

Experiment 2 was a post-test only quasi-experimental group design with a control group. It was conducted in a single school located in the rural area of Eastern Washington. The researcher worked with the health and fitness teacher and conducted a total of six sessions with middle and high school students. All experiments were

conducted in the same classroom. Three conditions (positive, critical, and control) were assigned randomly to six different sessions, resulting in two sessions (one with middle school students and the other one with high school students) participating in each experimental condition.

Students who participated in either the positive or critical condition were given a 15-minute lesson about the media and then watched a 15-minute condensed episode of *Dawson's Creek* depicting alcohol misuse consequences. This condensed episode was identical to the one used in experiment 1. Participants then filled out an instrument asking their attitudes toward the show and opinions about alcohol. Students who were in the control condition watched *Dawson's Creek* first and then filled out the same instrument excluding the manipulation check questions.

Measures

To be able to conduct an experiment within a given class period (approximately 45 minutes), previous instruments were condensed to a single instrument for easy administration. Indices were selected based on the reliability scores obtained from experiment 1, and therefore some indices used in experiment 2 could be slightly different from the ones in experiment 1. In addition, the index "narrative realism" was removed from this study as the two measures did not hold up as well in experiment 1.

Manipulation Check Questions: To assess whether or not participants in the treatment groups perceived two types of media literacy differently, the following two questions were asked on a 7-point scale on which 1 means "strong disagree" and 7 means "strong agree": This lesson taught me about things that are good in media messages; Today's lesson only taught me about things that are bad on TV; Today's lesson focused

on good things on TV. Because each question was analyzed separately, reliability score was not computed.

General realism: The following three two questions were used to assess participants' perceptions of general realism depicted in the show they just watched: Many people act like people in this show acted; Many people look like people in this show; Many people do things that people in this show did. The alpha assessing reliability of the index was .66.

Realism pertaining to alcohol portrayals: The following three questions were used to assess participants' perceptions of whether or not alcohol use depictions they just saw were realistic: This program showed how people act when drinking alcohol; The show I just watched showed what truly happened when you drink too much; The characters showed me what would happen if I got drunk. The alpha assessing reliability of the index was .84.

Desirability: The following two questions were used to assess participants' perceived desirability after watching the show: I like the young people in this show; Characters in this show were attractive. The correlation score for the two measures was .34 ($p<.001$).

Similarity: The following two questions were used to measure participants' perceived similarity after watching the show: Young people in the show I just watched were similar to people around me; Young people in this show were like my friends. The correlation score for the two measures was .45 ($p<.001$).

Identification: The following three questions were used to measure participants' desire to emulate the behavior depicted by the characters of the show they just watched: I

wish I could do things that characters on TV do; I want to be like the main character in this show; It would be fun to look like the main characters in this show. The alpha assessing reliability of the index was .66.

Positive expectancies: The following three questions were used to measure positive expectancies of alcohol drinking: Drinking alcohol makes a person more fun; makes a person more grown-up; and helps a person feel relaxed. The alpha assessing reliability of the index was .60.

Negative expectancies: The following two questions were used to measure negative expectancies of alcohol drinking: Drinking alcohol could get a person in trouble with their parents; could make a person feel sick to stomach. The correlation score for the two measure was .44 ($p<.001$).

Self-efficacy: The following two questions were asked to assess participants' perceived self-efficacy: I can talk to friends about the danger of alcohol use; I feel comfortable saying no to people if they offer me alcohol. The correlation score for the two measures was .53 ($p<.001$).

Behavioral intention: The following four questions were used to assess participants' intention to drink alcohol next year and before they graduate from high school: During the next year, do you think you will drink beer, will get drunk or drink a lot of alcohol at one time?; Before you leave high school, do you think you will drink beer, do you think you will get drunk or drink a lot of alcohol at one time? Note that these questions were identical to the questions in the media literacy measurements. The alpha assessing reliability of the index was .93.

Enjoyment of the show: The following two questions were used to assess participants' perceived entertainment value after watching the show: The show I just watched was entertaining; I enjoyed the show I just watched. The correlation score for the two measures was .80 (p<.001).

Emotional engagement: The following three questions were asked to measure the extent to which participants feel a sense of emotional involvement in the show: I could feel the emotions the characters felt during the show; I felt sad when a main character suffered in some way during the program; I was still thinking about what happened in the show after it was over. The alpha assessing reliability of the index was .71.

Cognitive involvement: The following two questions were used to assess participants' involvement in the show they just watched: I paid full attention to the show; I was very involved in the show I just watched. The correlation score for the two measures was .44 (p<.001).

Educational value: The following three questions were used to assess whether or not participants perceived the show they just watched was educational: I learned something about alcohol that I didn't know before; This show taught me something new; This show was educational. The alpha assessing reliability of the index was .71.

Trust of the show: The following two questions were used to assess whether or not participants believed the show they just watched: The show I just watched tried to tell me good things; This show was honest about what happened when people drink too much. The correlation score for the two measures was .34 (p<.001).

Skepticism: The following four questions assessed participants' ability of seeking additional information to verify what they see on TV: I seek out additional information to

confirm things I learn from TV; I think about things I see on TV before I accept them as believable; It's important to think twice about what TV says; I think about why someone created a message I see on TV. The alpha assessing reliability of the index was .62.

Demographic Information of the Participants

A total of 105 students participated in the post-hoc experiment with 34 (32.4%) in the critical condition, 39 (37.1%) in the positive condition, and 32 (30.5%) in the control condition. All of them watched a condensed episode of *Dawson's Creek*, which was identical to the clip students watched in the first experiment.

The sample included almost equal representation of male and female participants with 54 (51.4%) students being males and 50 (47.6%) students being females. The majority of the sample identified themselves as Caucasian (*n*=93, 89.4%), followed by 7 Latinos/Latina/Hispanic (6.7%), 5 Native Americans (4.8%), 2 Asian Americans (1.9%), and 1 participant indicated themselves as others (1.0%). None of the students reported being African American. Note that adolescents can identify themselves with more than one ethnic heritage.

The average age of participants was 14.54, with a range from 12-18. Participating students were enrolled in 7th to 12th grades with the majority of the participants in the 7th grade (n=26, 25.2%), followed by 9th grade (n=27, 26.2%), 8th grade (n=23, 22.3%), and 10th grade (n=16, 15.5%), 11th grade (n=8, 7.8%), and 12th grade (n=3, 2.9%). In terms of socioeconomic status, almost half of them were from the middle to upper income family (*n*=41, 43.2%).

Results

To check whether lesson-recipients perceived the positive and negative lessons differently, a series of Independent Samples-T tests were conducted. Students who received the positive lesson (M=5.26, SD=1.57) strongly agreed that today's lesson they got focused on things that are good on television than students who received the negative lesson (M=2.94, SD=1.84), $t(71)=5.80$, $p<.001$. In addition, students who received the critical lesson (M=6.09, SD=1.73) strongly agreed that today's lesson focused on things that are bad on television than students who received the positive lesson (M=3.18, SD=1.59), $t(70)=-7.42$, $p<.001$. Manipulation checks were successful.

Analysis of Variance Analyses were conducted with condition and gender entered as fixed factors and the tested index entered as a dependent variable. When a significant effect was found, contrast analysis will further be used to test significant differences among groups.

General Realism: A main effect trend of condition, $F(2, 98)=2.74$, $p=.08$ was found. To further deconstruct the main condition effect, a contrast analysis showed that participants in the positive condition (M=4.82, SD=1.24) perceived the show and the characters to be more realistic than participants in the critical condition (M=4.15, SD=1.30), $t(101)=2.29$, $p<.05$. In addition, the same pattern was observed between the positive condition and the control condition. Participants who received the positive instruction about the media scored slightly higher on realism (M=4.87, SD=1.24) than participants who did not receive any lesson (M=4.28, SD=1.51), $t(101)=1.83$, $p=.07$. Even though the difference was not significant, the finding still deserved attention.

A sex difference also was found, $F(1, 98)=7.31$, $p<.01$. Girls in general

perceived the program to be more realistic (*M*=4.85, *SD*=1.35) than boys (*M*=4.10, *SD*=1.31).

Realism pertaining to alcohol portrayals: Only a sex effect was found, *F*(1, 104)=7.71, *p*<.01. Consistent with the gender effect found in general realism, girls perceived the alcohol depictions in the show to be more realistic (*M*=5.87, *SD*=1.12) than boys (*M*=5.14, *SD*=1.40), *t*(102)=-2.93, *p*<.01.

Desirability: No effects were found for desirability.

Similarity: A main effect of condition was found, *F*(2, 98)=3.49, *p*<.05. A contrast analysis further showed that participants who received the positive instruction thought that characters in the show were more similar to them (*M*=3.38, *SD*=1.60) than those who received the critical instruction (*M*=2.44, *SD*=1.46), *t*(102)=2.73, *p*<.01.

Identification: A main effect of sex was observed, *F*(1, 104)=3.40, *p*=.07. Contrast analysis showed that boys in general were slightly more likely to identify with the characters (*M*=1.73, *SD*=0.84) than girls (*M*=2.13, *SD*=1.21), *t*(102)=1.92, *p*=.06.

Positive expectancies: No effects were found for positive expectancies.

Negative expectancies: No effects were found for negative expectancies.

Self-efficacy: A main effect of sex was found, *F*(1, 98)=3.41, *p*=.07. A contrast analysis showed that girls in general were more efficacious in resisting alcohol (*M*=6.15, *SD*=1.29) than boys (*M*=5.61, *SD*=1.38), *t*(102)=-2.05, *p*<.05.

Behavioral intention: A main effect of sex was found, *F*(1, 95)=4.37, *p*<.05. Further contrast analysis showed that girls were less likely to drink alcohol (*M*=1.88, *SD*=1.31) than were boys (*M*=2.58, *SD*=1.83), *t*(99)=2.20, *p*<.05.

Enjoyment of the show: A main effect of condition was found, *F*(2, 98)=3.25,

$p<.05$. Further contrast analysis showed that participants who received the critical instruction did not enjoy the show ($M=3.66$, $SD=1.54$) as much as participants who did not receive any lesson ($M=4.55$, $SD=1.47$), $t(102)=-2.31$, $p<.05$.

Emotional engagement: Main effects of condition, $F(2, 98)=3.01$, $p<.05$, and sex, $F(1, 98)=8.66$, $p<.01$, were found. Contrast analyses showed that participants who received the positive instruction were more emotionally involved ($M=3.96$, $SD=1.43$) than were participants who received the critical instruction ($M=3.19$, $SD=1.46$), $t(102)=2.40$, $p<.05$, and participants who did not receive any lesson ($M=3.35$, $SD=1.18$), $t(102)=1.84$, $p=.07$, respectively.

In addition, girls in general were more emotionally involved ($M=3.95$, $SD=1.21$) than were boys ($M=3.14$, $SD=1.47$), $t(102)=-3.03$, $p<.01$.

Cognitive involvement: A sex effect was found for cognitive involvement, $F(1, 104)=3.79$, $p<.05$. Girls paid more attention to the show ($M=5.23$, $SD=1.23$) than boys ($M=4.71$, $SD=1.37$), $t(104)=-2.03$, $p<.05$.

Educational value: No effects were found.

Trust of the show: A main effect of sex was found, $F(1, 98)=6.07$, $p<.05$. Girls greatly trusted the content of alcohol depictions ($M=6.35$, $SD=0.81$) than boys ($M=5.84$, $SD=1.15$), $t(101)=-2.59$, $p<.01$.

Media Skepticism: A main effect of condition was found, $F(2, 98)=3.97$, $p<.05$. A contrast analysis showed that participants in the positive condition were more skeptical ($M=4.53$, $SD=1.08$) than those in the critical condition ($M=3.85$, $SD=1.44$), $t(101)=2.37$, $p<.05$. In addition, participants who did not receive any lesson were even more skeptical

(*M*=4.68, *SD*=1.13) than those in the critical condition (*M*=3.85, *SD*=1.44), *t*(101)=-2.72, *p*<.01. See Table 13 for a summary of experiment 2 results.

Insert Table 13 about here

Discussion

The purpose of experiment 2 was to investigate whether a newly added positive instructional approach would change lesson-recipients' perceptions of a pro-health entertainment program in comparison to a negative instructional approach. Overall, the positive instructional approach seemed to affect adolescents' early stages of information process, including realism and similarity. Students who received the positive lesson about the media strongly agreed that the entertainment program was more realistic and believed that characters involved in the program were more similar to them than students who received the critical lesson about the media. A positive instructional approach seems to help facilitate lesson-recipients' understanding of the show. Yet, neither instructional approaches affected adolescents' later decision-making process, including their perceived identification, expectancies, and behavior change.

While a positive instructional approach strengthened lesson-recipients' logic-based information process about an entertainment program, it also heightened adolescents' emotional involvement with the show, indicating that a positive approach did not diminish the audience's affect-based decision-making process. In particular, adolescents who received the positive lesson were more emotionally engaged than those in the critical lesson and than those in the control groups, respectively. In addition,

adolescents who received the positive lesson benefited from learning something about the media and became more empowered to seek out additional information in the media than those who received the critical lesson.

Adolescent boys and girls also had different interpretations of an entertainment program, regardless of the media literacy lesson they received. Adolescent girls believed that the entertainment program and characters were realistic and perceived the show accurately depicted of alcohol misuse consequences. It is likely that both of these factors led to their increasing level of trust of the alcohol misuse depictions. They also were more likely to be emotionally *and* cognitively engaged in the program. Girls' positive evaluations of the program also reflected on their heightened level of self-efficacy and a less likelihood of engaging in alcohol drinking behavior in the future. Adolescent boys, on the other hand, were more likely to identify with the characters than adolescent girls. It is unsure of whether adolescent boys wanted to emulate the drinking behavior depicted at the beginning of the show or learned not to misuse alcohol exhibited by the actors at the end of the show. Future research should further differentiate individuals' identification process by asking detailed questions regarding the behavior with which characters are involved at different stages of the show.

Significant sex effects in experiment 1 and experiment 2 seem to suggest that pro-health entertainment programs are particularly effective for female adolescents. Their heightened levels of positive responses toward the logic-based decision-making process (e.g., general realism, realism pertaining to alcohol portrayals, cognitive involvement) and affect-based decision-making process (e.g., emotional engagement) could warrant a successful implementation of entertainment-education.

The results of the positive instructional approach on emotional engagement, similarity, and media skepticism paralleled the ones found in experiment 1. Experiment 1 found that a balanced instructional approach, which is a combination of positive and negative lesson, increased participants' increased level of perceived similarity and emotional engagement of pro-health entertainment programs more than a critical instructional approach. Also, adolescent girls who received the balanced lesson in experiment 1 were more skeptical toward the media than girls who did not receive the lesson. Findings appear to suggest that media education that *either* addresses media can be good for you (experiment 2) *or* mentions a positive aspect of media in addition to a critical assessment of the media (experiment 1) could enhance lesson-recipients' receptiveness to pro-health entertainment programs in the context of alcohol use prevention.

Unlike some of the significant effects found in experiment 1, however, a critical instructional approach in experiment 2 failed to deliver significant changes. In particular, adolescent boys' enhanced media skepticism in experiment 1 was absent in experiment 2. Experiment 2 did not further clarify why adolescent boys in critical condition of experiment 1 had more trust toward pro-health entertainment programs and became more skeptical toward the media than adolescent boys in the balanced condition. It seemed that in the context of experiment 2, a critical instructional approach impedes adolescents' learning process, not only inhibiting them from acknowledging the positive aspect about the media but also hampering both the logic- and affect-based decision-making process. Future research should address why the critical approach in two slightly different media education produces conflicting outcomes and more experimental studies are needed to

elucidate the process by which adolescents process different types of media literacy lesson.

It is important to note that unlike the critical approach in experiment 1 that focused on alcohol advertising and product placements in television programs, experiment 2 simplified the critical approach by only discussing television program production techniques. Experiment 2 results presented here ruled out the potentially confounding effects of alcohol advertising in interfering with participants' opinions toward pro-health entertainment-programs in experiment 1. Given that the critical approach received no significant changes in key decision-making factors, the finding can be potentially alarming because the media-bashing techniques about television programs could, in fact, have an undesirable effect on adolescents' development of critical viewing skills and attitudes toward a positive television program.

Experiment 2 shows that media education can be approached from a different perspective and can be helpful for media education advocates who prefer the discussions of both positive and critical aspects of the media to media bashing techniques. Future research should systematically examine what approaches can be best employed in media education and how to teach youngsters to differentiate positive and negative aspects of television programming from a mixture of alcohol messages in the media.

CHAPTER SIX

DISCUSSION

Fearing the negative impact media might have on vulnerable message recipients, media literacy programs have primarily taken on a negative evaluative approach to scrutinizing media messages. Applying the notion to the context of alcohol prevention education, youngsters learn about the potentially exploitative nature of alcohol advertising and techniques advertisers use to allure their attention. Even with some scholars believing that media can serve as positive role models for youngsters, these particular media messages have rarely been incorporated in media literacy curricula. As a result, the first goal of experiment 1 was to examine the implications of both critical and balanced media literacy perspectives in alcohol prevention education.

A series of comparisons between the treatment and the control groups revealed that media literacy in general inspired adolescent girls to be more skeptical toward the media than it did to adolescent boys. Media literacy can be used to strengthen girls' attitudes toward the media. Other insignificant results from the majority of the variables, however, are probably due to a small number of control group participants. Increasing control group participants may help detect significant differences between the treatment and the control groups.

The Effectiveness of Different Approaches to Media Literacy

Examining the implications of a critical versus a balanced media literacy approach, results showed that different evaluative approaches produced some significant differences in realism and negative expectancies, indicating that differences were observed at the early and later stages of the decision-making process. The critical media

literacy lesson reinforced the logic-based decision-making process, particularly adolescent boys' interpretations of television and alcohol advertising. Adolescent boys in the critical condition perceived characters on television as less realistic than those who did not receive the lesson. In addition, adolescent boys in the balanced condition were more likely than those who did not receive the lesson to agree that characters on television represent people they know, even though the difference was close to significant.

As for the perceived negative expectancies, the critical media literacy lesson particularly increased adolescent boys' perception of negative expectancies. In fact, participants in the balanced condition thought alcohol drinking as less negative than those in the critical and control conditions. In particular, adolescent boys who did not receive the lesson even had a higher level of negative expectancies than male participants in the balanced condition. Results seem to suggest that the critical lesson lowered adolescent boys' perceived realism and reinforced their beliefs of alcohol misuse, whereas the balanced media literacy lesson somewhat increased their perceived realism and enhanced positive perceptions of alcohol.

Critical media literacy appeared to be relatively effective in changing adolescent boys' attitudes toward alcohol but *not* those of adolescent girls. The balanced media literacy lesson, however, successfully enhanced adolescent girls' media skepticism attitude, even though it did not modify other of their attitudes toward alcohol and the media. In comparison to the critical and the control group participants, adolescent girls who were taught the importance of looking into both positive and negative aspects of the media became more skeptical. Adolescent girls expressed that they were more likely to

think twice about what the media say and looked for additional information to verify things presented in the media. Adolescent boys' media skepticism, however, were not affected by any of the media literacy lessons.

Adolescent girls' unchanged decision-making process should not be a source of worry for media educators. Adolescent girls already had a good understanding of the ways in which the alcohol industry uses attractive characters and unrealistic settings to entice consumers' attention. Girls already had a heightened level of negative expectancies, which could subsequently deter them from trying alcohol in the near future. Their low scores on all of the decision-making factors may lead to the relative ineffectiveness by either of the approaches. It also is possible that alcohol advertising examples used in the lessons might lead to the null findings. Six selected alcohol advertisements in experiment 1 were primarily geared toward male adolescents. Girls might feel "left out" because alcohol advertising examples were not relevant to them. Future health-based media literacy curricula should carefully incorporate female-targeted media messages to modify their decision-making about alcohol.

Additionally, the null effects of either type of the lessons, however, do not suggest that girls do not need media education. They might need a lesson with examples of alcohol advertising specifically targeting to them *and* a more sophisticated media literacy lesson than the one that just simply covers media production techniques and advertising hooks. Media literacy employing a critical cultural perspective might engage female students in deeper conversations of the motives of the media industry and power structures embedded in media messages. Focus groups and in-depth interviews might offer some insights as to what type of media education adolescent girls need. Most

importantly, media literacy *not only* should acknowledge adolescent girls' existing knowledge structure about alcohol use *but also* should design a program with examples of female-targeted alcohol advertising in an effort to evaluate gender learning differences in media-based alcohol prevention education.

In a way, findings from the current study parallel the effectiveness of a negative instructive approach in media-violent interventions (Nathanson, 2004; Nathanson & Yang, 2003). Even though prior media violence studies found that a critical instructional approach was relatively ineffective for older children, the critical media literacy lesson in experiment 1 changed adolescent boys' early and later stages of decision-making process. This approach appears to capture adolescent boys' immediate attention and reinforced negative consequences of engaging in undesirable behavior. Uncomplicated experimental approaches used in Nathanson and associate's experiments (Nathanson, 2004; Nathanson & Yang, 2003) might contribute to the discrepancies found in the current study as older children might prefer a lesson designed with their cognitive reasoning skills in mind.

The Implications of Different Instructional Approaches on Pro-Health Entertainment

Given that the current focus of U.S. media education is to develop critical viewing skills, the positive aspects of television programming can be potentially overlooked by lesson-recipients' increased level of skepticism. Rarely do media literacy curricula use positive, pro-health television programs as supplemental materials in its lesson plans. As a result, the second purpose of experiment 1 was to investigate whether media literacy and pro-health entertainment programming could work together in an alcohol prevention

education program. Specifically, the second goal examined whether the perceptions of pro-health television programs would differ based on the lesson participants received.

Unexpectedly, adolescent boys in the critical condition had more trust than boys in the balanced condition on alcohol misuse depictions in entertainment programs. One possible explanation for this puzzling finding is that adolescent boys who received the critical lesson already had the greatest degree of perceived negative expectancies *prior to* their exposure to pro-health entertainment programs. A critical media literacy lesson pairing with a pro-health entertainment program might have a positive effect through strengthening adolescent boys' perceived negative expectancies, which, in turn, enhanced their trust toward entertainment programs. Through watching entertainment programs that stressed the negative social and physical consequences of alcohol misuse, adolescent boys confirmed their newly acquired negative expectancies knowledge. Thus, their heightened level of negative expectancies determined their view of alcohol misuse representations in the media.

In addition, even though the critical media literacy lesson focuses on the ways alcohol advertising and television manipulate the audience, it is likely that participants put more focus on the negative aspect of alcohol advertising instead of television when they received the lesson. Thus, they only held a stronger, more critical view toward alcohol advertising instead of television shows. It is likely that pro-health entertainment programs edited without retaining any commercials may thus be more convincing and trustworthy. In addition, a critical approach also empowered adolescents to be more efficacious in influencing their own and others' alcohol use behavior. Given that there is a link from self-efficacy to behavioral intention and actual behavior enactment (Ajzen &

Fishbein, 1977), entertainment programs that demonstrate characters' suffering from alcohol misuse strengthened the effects of negative mediation. It is hoped that adolescents' trust toward pro-health entertainment media and self-efficacy could help lesson-recipients resist the pressure of alcohol use when they grow up.

Not only did adolescent boys have more trust toward pro-health entertainment programs in the critical condition, they also became more skeptical toward the media. In fact, they became more skeptical toward the media than adolescent boys who received the balanced lesson. Watching pro-health entertainment programs as part of the critical media education curricula triggered adolescent boys' level of media skepticism, a factor that was not immediately observable right after the media literacy session. Interestingly, boys in the balanced condition received almost the same lesson plan, except for the manipulated instructional tone and an additional example of "positive media message." A balanced evaluative approach about the media failed to deliver the changes. It seems that adolescent boys were receptive to a negative-oriented instructional approach teaching them what to think about the media and negative consequences associated with alcohol use.

While adolescent boys gained the most from the critical lesson, adolescent girls continuously benefited from a balanced media literacy lesson, enabling them to hold a high level of skeptical attitude toward the media. A balanced media education lesson and entertainment programs helped reinforce adolescent girls' desire to exercise their reflective thinking skills. A significant level of media skepticism after watching the shows demonstrated that girls continuously applied the heightened media skepticism skill

and things they learned from the media literacy training to pro-health entertainment programs, only when they were taught to view media *both* positively and critically.

The balanced lesson also impacted adolescents' perceived similarity of the characters involved in the shows. They perceived the characters to be more similar to them than those who received the critical lesson. It is uncertain how the positive approach would impact lesson-recipients' other key decision-making process of pro-health entertainment programs as the balanced approach did not deliver significant results in other tested variables. Future research should further develop media literacy programs with an emphasis on positive media perspective to shed some light on how this particular approach would influence children's and adolescents' process of pro-health entertainment programs.

Additionally, participants' reactions to pro-health entertainment programs after receiving different types of media education also significantly differed, often as a function of gender. Adolescent boys continuously gained the most from the critical approach as they paid more attention to the show. Girls in the balanced media literacy lesson became more emotionally engaged than girls in the critical condition, suggesting that their critical viewing skills heightened after a balanced media literacy lesson did not interfere with girls' enjoyment of the show. Gender indeed plays a role in influencing adolescent boys' and girls' interpretations of and receptiveness to the critical and balanced media literacy education. The findings were somewhat congruent with prior studies that suggest boys and girls learn differently (Gurian, 2001) and they acquire different levels of learning objectives in media literacy curricula (Austin et al., 2005; Pinkleton et al., in press).

The Effects of Gender on Participants' Perceptions of Pro-Health Entertainment

Independent from the lesson participants received, participants' gender also determined their interpretations of entertainment programs. Adolescent girls had higher degrees of general realism, perceived realism pertaining to alcohol portrayals, and desirability than the boys. They also thought that pro-health entertainment programs were educational. All of the key decision-making factors could possibly increase adolescent girls' identification with the characters and lessen their intention to engage in alcohol drinking in the future, even though none of the mentioned factors were significant in experiment 1.

Nevertheless, adolescent girls seemed to be receptive to entertainment programs depicting male and female characters' alcohol misuse consequences. They appeared to learn something from the shows they watched, even though experiment 1 did not specify with which characters girls identified the most. Aside from the fact that girls had an increased level of skepticism after receiving a balanced media literacy lesson, results from the pro-health entertainment programs appear to suggest that pro-health entertainment programs can successfully capture adolescent girls' logic- (e.g., realism, realism pertaining to alcohol use) and affect-based (e.g., desirability) decision-making process. Showing pro-health entertainment programs alone may be sufficient enough in terms of eliciting girls' positive responses to alcohol prevention messages in entertainment media. It is unsure of why adolescent boys in the study failed to identify or relate to any of the characters. Research is needed to examine whether sex of the participants affects their interpretations of pro-health entertainment shows and/or entertainment-education tailored to specific sex. Will a male-targeted entertainment-

education program work better for adolescent boys? Given the significant results of pro-health entertainment programs for girls, will they also learn something from a male-targeted show?

Overall, male participants seem to need a clear, straightforward media literacy emphasizing the *negative* impact media have on them. In particular, the negative lesson facilitated their learning of entertainment-education programs. When they were taught that media can deliver good health information, however, male adolescents appeared to get confused and failed to recognize the positive aspect of pro-health entertainment programs. It is likely that more media examples that teach adolescent boys how to differentiate positive aspects from a pool of mixed media messages could, perhaps, enhance their learning process and produce different outcomes. Girls, on the other hand, were capable of extending their learned media lesson to pro-health entertainment.

Limitations of the Study

Even though the primary findings seem promising for both male and female adolescents in activating some of their key decision-making factors, findings of the study should be interpreted with cautions. In this study, randomly assigning students to different media literacy conditions in the school settings was virtually impossible because of the difficulty of recruiting large school districts and multiple teachers within a school. A quasi-experimental design, the most often used research method in social science (Cook & Campbell, 1979), was chosen as an alternative. Even though true random assignment in an experimental design ensures causality inference, a quasi-experimental design is a sounded option in a field study. Also, this study used ANCOVA, a statistical analysis that helps control for characteristics commonly observed in quasi-experimental

designs. For example, ANCOVA helps correct the initial group differences commonly seen in quasi-experimental designs by controlling for initial differences in three groups by entering the pretest score as a covariate. Also, ANCOVA can be used with unbalanced designs when sample sizes between groups are unequal. This is particularly true when conducting a quasi-experimental design. Lastly, use of ANCOVA helps reduce the variability in the posttest scores that are often associated with the pretest scores (Cook & Campbell, 1979; Keselman, Huberty, Lix, & Olejnik, 1998).

Indices with low reliability scores might cause the insignificant findings observed in the current study. Even though an acceptable reliability coefficient should be .7 or higher (Nunnally, 1978), lower thresholds are sometimes used in the literature (Austin & Johnson, 1997a, 1997b), specifically when children and adolescents are the primary participants. Anecdotally, the primary researcher found that some rural area students were unable to comprehend some vocabulary used in the instruments even though the instruments were pretested with two adolescents prior to administration.

Even with findings echoing the significance and applicability of a one-shot media literacy experiment done previously (Austin et al., 2005), continuous research is needed to understand whether lesson-recipients still apply their learned media awareness skills to their daily media use activities long after the lesson implementation. A longitudinal study following participants throughout a longer period of time should be conducted to examine their interactions with the media, particularly alcohol advertising, and their alcohol use intention. By so doing, the process could shed some light on the promising results found at the initial stage of the study.

In addition, three pro-health entertainment programs selected for the current study were most popular among female viewers, even though both male and female characters in each program clearly suffered alcohol misuse consequences. Given that female adolescents, despite the media literacy lesson they received, had favorable attitudes toward the entertainment stimuli, it showed that they were receptive to pro-health entertainment programs. It is possible that adolescent girls are most attracted to these selected entertainment clips. Their favorable attitudes toward the selected entertainment programs could in turn influence their perceived effectiveness of pro-health entertainment. Indeed, adolescent boys and girls have little in common with respect to their preferences of media choice (Pardun et al., 2005). Finding suitable stimuli popular with both adolescent boys and girls thus imposes a challenge for future research.

Taken as a whole, various media literacy instructional approaches have a different impact on lesson-recipients' attitudes toward the media. Even with a critical evaluative approach successfully changed adolescent boys' responses than girls' with respect to alcohol advertising and the media, girls seemed to benefit the most from the balanced instructional approach. A closer look at what balanced media literacy means to both male and female lesson-recipients could help develop future media literacy curricula that address male and female adolescents' cognitive needs and diverse learning styles. In particular, lesson-recipients' perceptions of good, positive television programs and their understandings of media structure and production techniques should be carefully researched and incorporated into media literacy curricula. This process, hopefully, could help initiate the conversations of how to teach children and adolescents about good media messages.

Second, a positive instructional approach can be developed and compared against a negative instructional approach to see whether participants' responses to alcohol advertising and media in general would be differed based on the approaches. Third, experiment 1 carried a quite complicated lesson plan, including the discussions of advertising and television program, within a limited time frame. It is likely that too much information makes it difficult for participants to absorb and apply the concepts to various media examples. A media literacy program redesigned to focus either on advertising or on television programs may clarify how media literacy impacts pro-health entertainment.

Experiment 2 was essentially designed to address the above research ideas two and three. It examined whether a positive versus a critical instructional approach in television-focused media literacy could modify adolescents' view toward entertainment shows. In general, experiment 2 showed that a simplified television literacy program delivered with a positive evaluative approach elicited more positive responses from both male and female participants. The balanced approach to television literacy heightened adolescents' media skepticism. They also were more emotionally engaged and appreciated the accurate representation of alcohol misuse depicted in the show. Neither the critical approach to television literacy nor the sex modified adolescents' responses.

Synthesizing results from two experiments revealed somewhat similar findings, yet more research still needs to be done to clarify some inconsistencies. Experiment 1 suggests that a critical approach to media literacy enhanced adolescent boys' positive perceptions of entertainment-education, including their strengthened trust of the depicted alcohol use consequences and their skeptical views toward the media. Yet, adolescent girls gained the most from the balanced media literacy lesson as their reflective thinking

abilities were enhanced by it. Experiment 2, employing a simplified media education that only focused on television programs, found that a positive evaluative approach to media literacy increased adolescents' media skepticism and it also had crucial influences on other key decision-making process.

Findings from experiment 1 and 2 suggest some future research ideas to further explore how media literacy affects adolescents' attitudes toward different pro-health television stimuli. First, pro-health entertainment programs with alcohol advertisements appeared in each commercial segment can be used to measure media literacy lesson-recipients' attitudes toward advertising and the purpose of pro-health entertainment programs. In particular, it is necessary to investigate which media component (e.g., alcohol commercials, alcohol misuse consequences depicted in pro-health entertainment programs) elicits the most attention from media literacy lesson-recipients. Individuals' awareness of alcohol advertising and educational nature of entertainment programs can also be carefully assessed through in-depth interviews and focus groups.

Second, what will be the effects of entertainment-education with product placements on viewers? With the surmounting pressure of developing commercially successful entertainment programs in the U.S., an increasing use of product placement is a likely trend. Thus, how will product placement hamper media literacy recipients' understanding of entertainment-education? Will media literacy participants scrutinize the use of product placements in pro-health entertainment programs? Will enjoyment and narrative engagement elicited from the entertainment-education overshadow the supposedly enhanced critical viewing skills among media literacy receivers? Will

detecting the nature and purpose of product placements interfere with their interpretations of pro-health entertainment narratives?

With an increasing attention to entertainment-education in its applicability to health promotion in the U.S., the generations of media literate children in two decades of literacy movements might have a seemingly different perspective toward the media. The current study is the first step to an empirical inquiry searching the answer for the question of whether media advocates should teach children and adolescents to critically examine media messages and forgo the potentially artistic or educational values of the media. The critical, the balanced, and the positive evaluative approaches to media education had varying degree of *effectiveness* and *ineffectiveness* on adolescent boys' and girls' interpretation of alcohol and pro-health entertainment programs. Media literacy advocates are challenged to explore what defines media literacy and to provide systematic evaluations of media literacy curricula concerning adolescents' sex, learning styles, and cognitive needs in hopes to enhance the effectiveness of media literacy on adolescents' health decision-making with regard to alcohol.

CHAPTER SEVEN

CONCLUSION

Scholars have endorsed using *either* media literacy *or* entertainment-education as a health educator in modifying children's and adolescents' health behaviors. There has been a gap in the literature with regard to the perceived effectiveness of entertainment-education by children and adolescents who are media literate. Indeed, individuals who receive either one of the approaches have seemingly different attitudes and responses to the media. Conflicting views toward the media inevitably hinders the development of media literacy education designed to teach youngsters to select positive media messages from a pool of mixed media messages. Specifically, with an increasing likelihood of exposing to a mixed pool of positive and negative media messages pertaining to alcohol use, it is uncertain of how media literate adolescents view pro-health entertainment programs with accurate representations of alcohol misuse consequences. A research question thus emerges: What will happen if adolescents are exposed to media literacy and pro-health entertainment simultaneously?

Inherent to the theoretical underpinnings posited by the Message Interpretation Process Model (Austin and colleagues, 2002), both critical and balanced instructional approaches to media literacy were developed to evaluate whether adolescents' attitudes toward pro-health entertainment depicting alcohol misuse consequences differed by the type of media lesson they received. After viewing a randomly selected pro-health entertainment show among three programs, including *One Tree Hill*, *Saved by the Bell-New Class*, and *Dawson's Creek*, adolescent girls who received the balanced media literacy lesson became more skeptical toward the media. It appears that teaching

adolescent girls the positive and negative aspects of the media enhanced their learning of pro-health entertainment programs, encouraging them to think twice about the media messages and looking for additional information to confirm things they learned from the programming.

Surprisingly, contrary to the predicted hypothesis that suggested that a critical lesson would increase adolescents' level of distrust of alcohol misuse depictions in the pro-health entertainment programs, adolescent boys reportedly believed the alcohol misuse consequences in the programming more than those who received the balanced lesson. It is likely that adolescent boys' heightened negative expectancies of alcohol use *immediately observed* right after the critical lesson enhanced the effectiveness of pro-health entertainment. Additionally, the critical lesson also strengthened media skepticism, proving that adolescent boys were receptive to the type of media education that teaches them critical viewing skills.

Theory-based media education offers invaluable strengths for alcohol prevention health campaigns, allowing researchers to target specific decision-making mechanisms that influence adolescents' health behaviors. The form and delivery of the media literacy lessons, in combination with demographic and individual variables, impact adolescents' receptiveness to pro-health entertainment. In particular, this study is the first to demonstrate that media literacy enhances the effectiveness and learning of pro-health entertainment among adolescents that future health campaigns should incorporate to promote better health decision-making.

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Figure 1

Dissertation Design

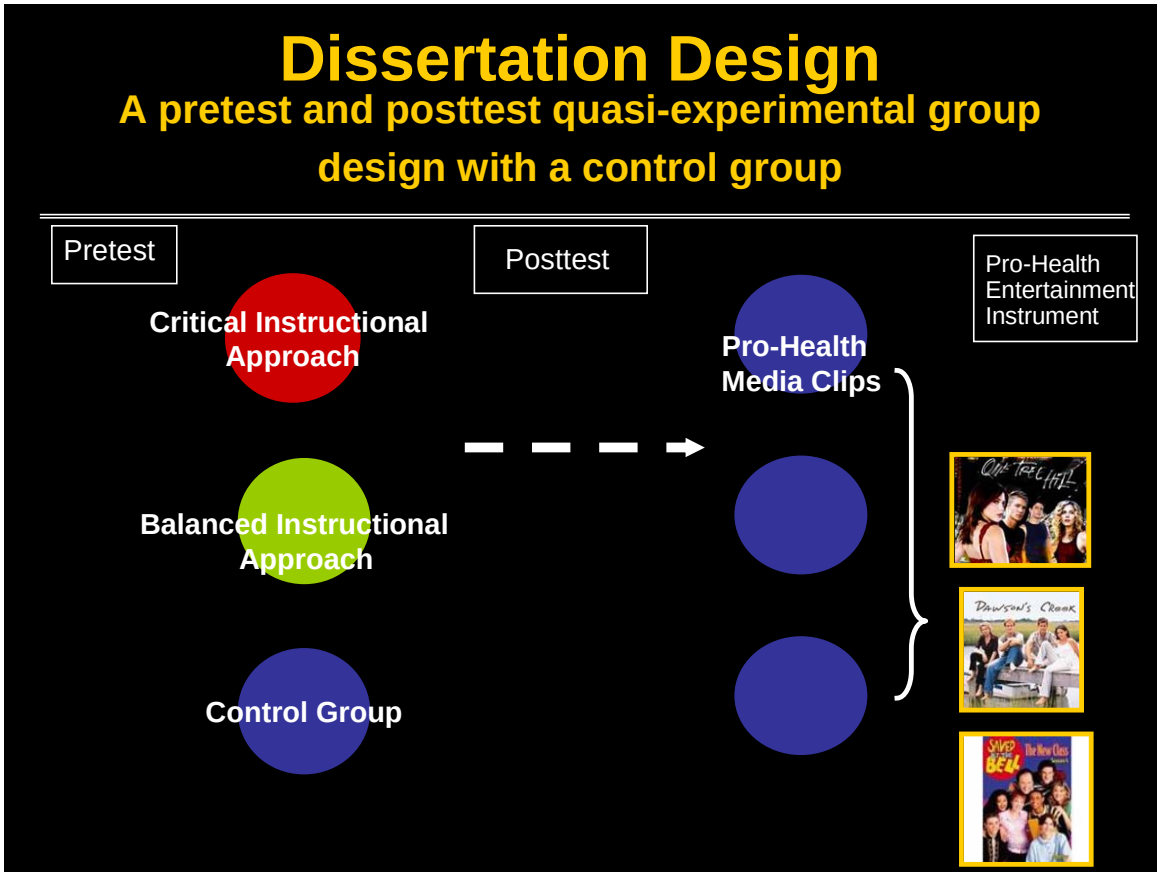


Figure 2

An Interaction Effect of Condition (Critical and Balanced Groups) and Gender on Media Skepticism

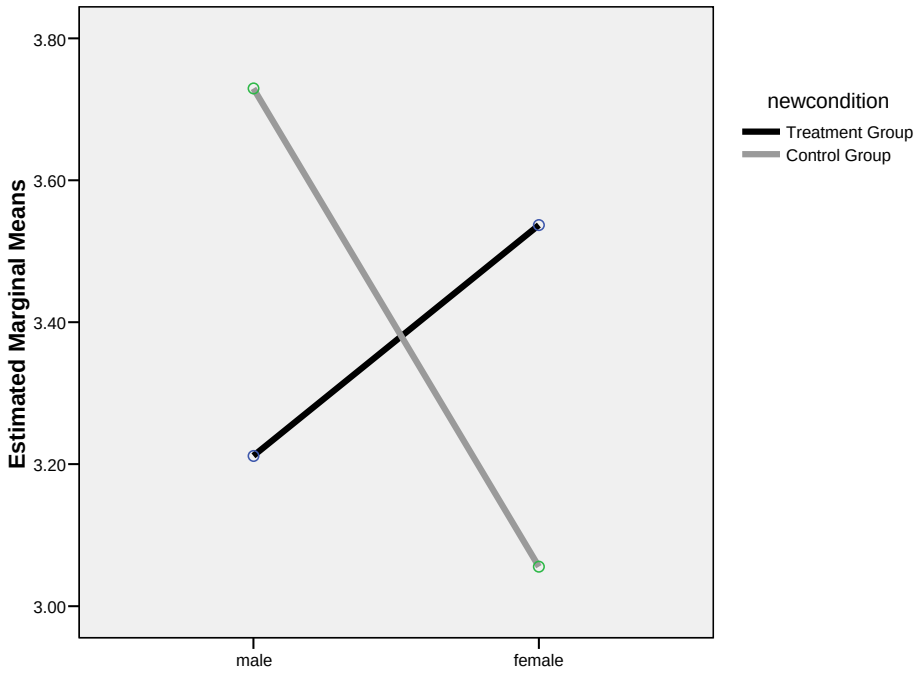


Figure 3

An Interaction Effect of Condition and Gender on Realism

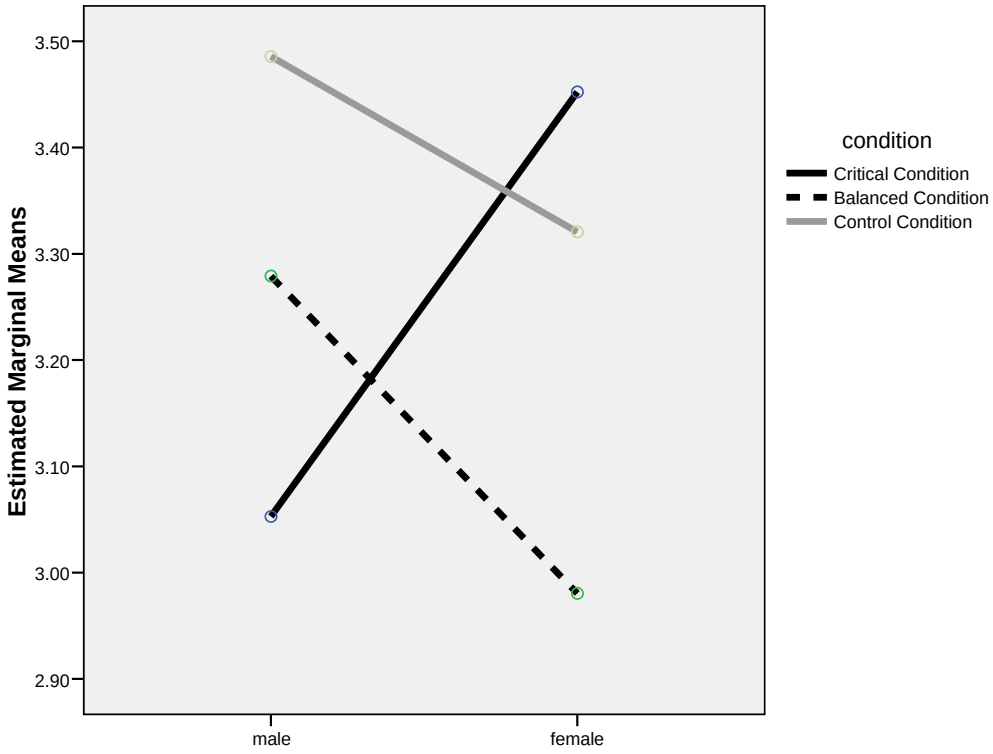


Figure 4

An Interaction Effect of Condition and Gender on Negative Expectancies

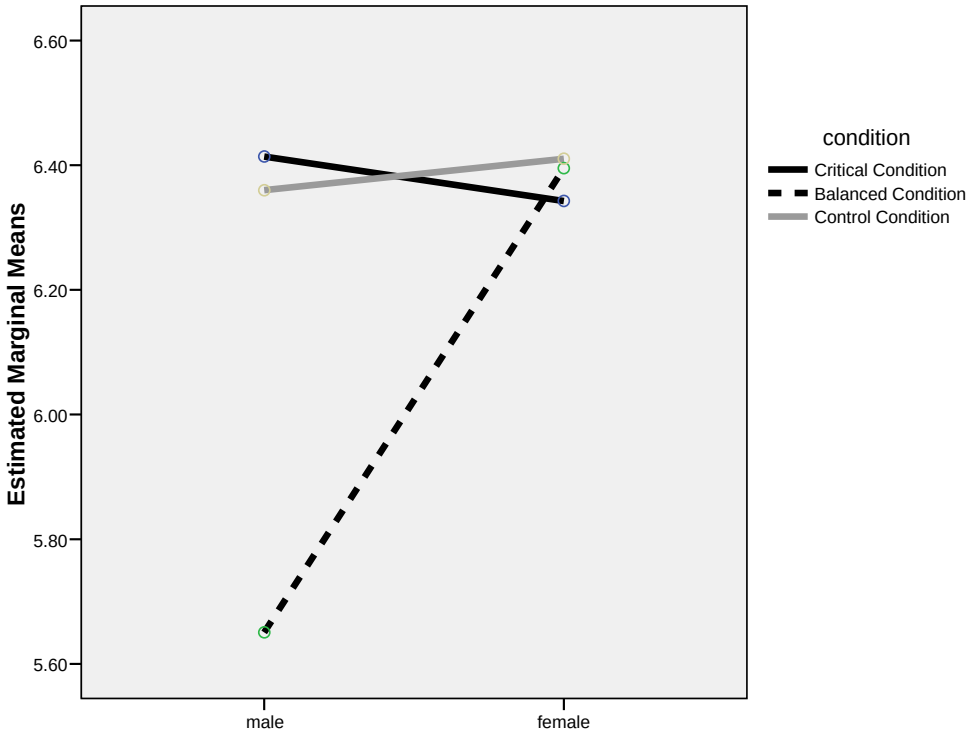


Figure 5

An Interaction Effect of Condition and Gender on Skepticism

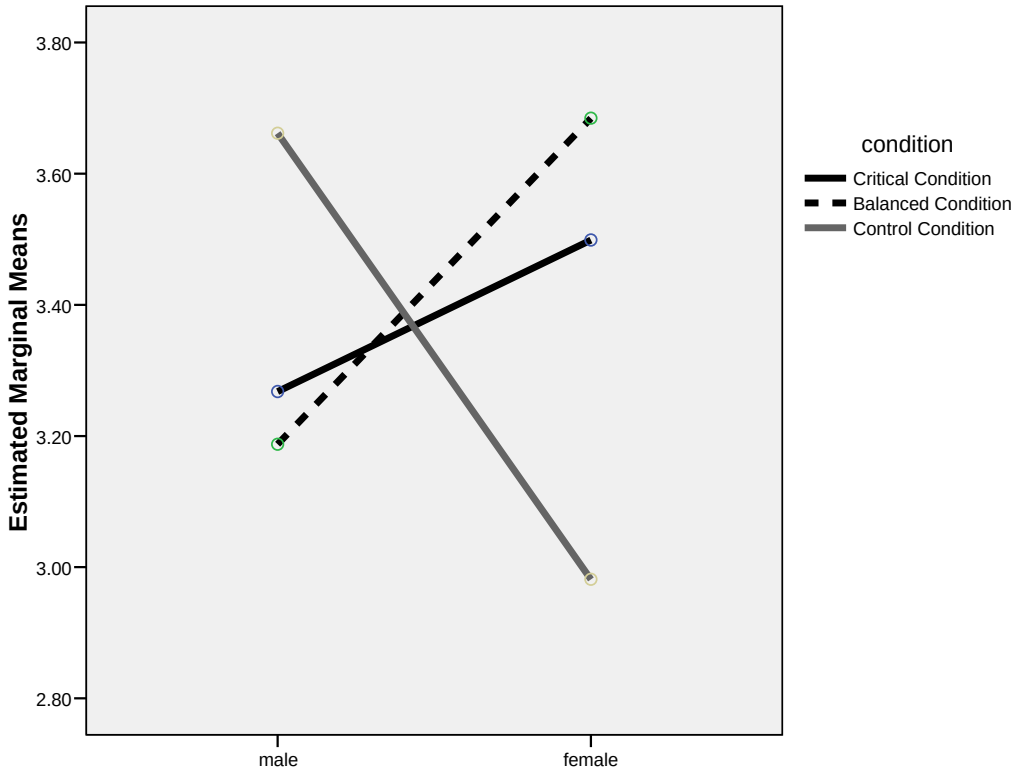


Figure 6

An Interaction Effect of Condition (Critical and Balanced Groups) and Gender on Skepticism in the Second Phase of the Study

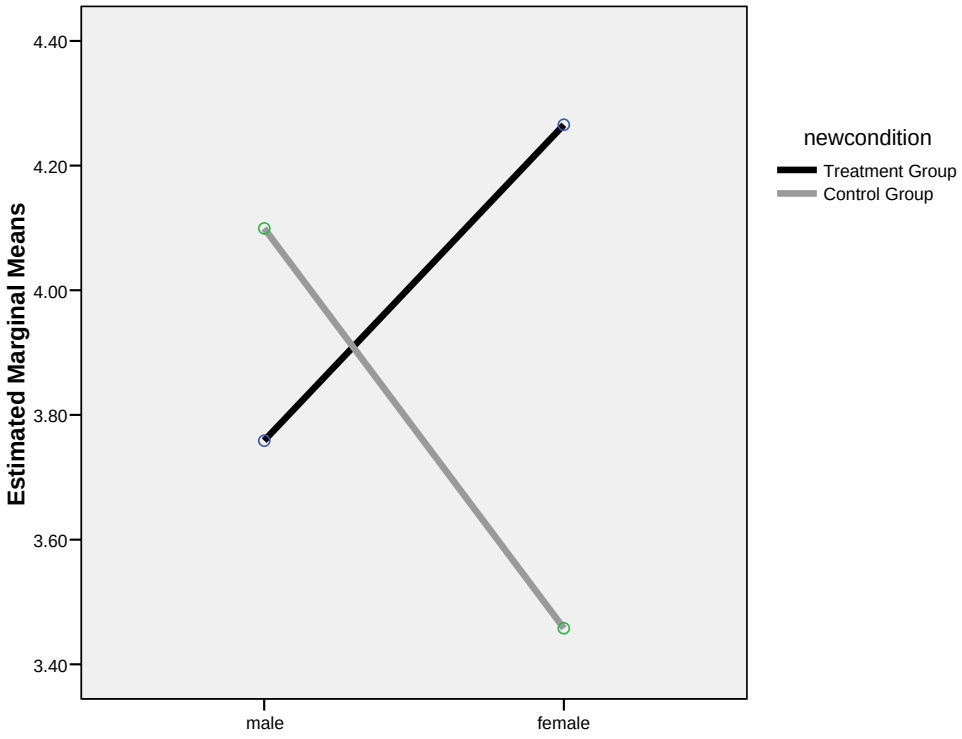


Figure 7

An Interaction Effect of Condition and Gender on Trust of the Alcohol Consequences Depicted in the Show

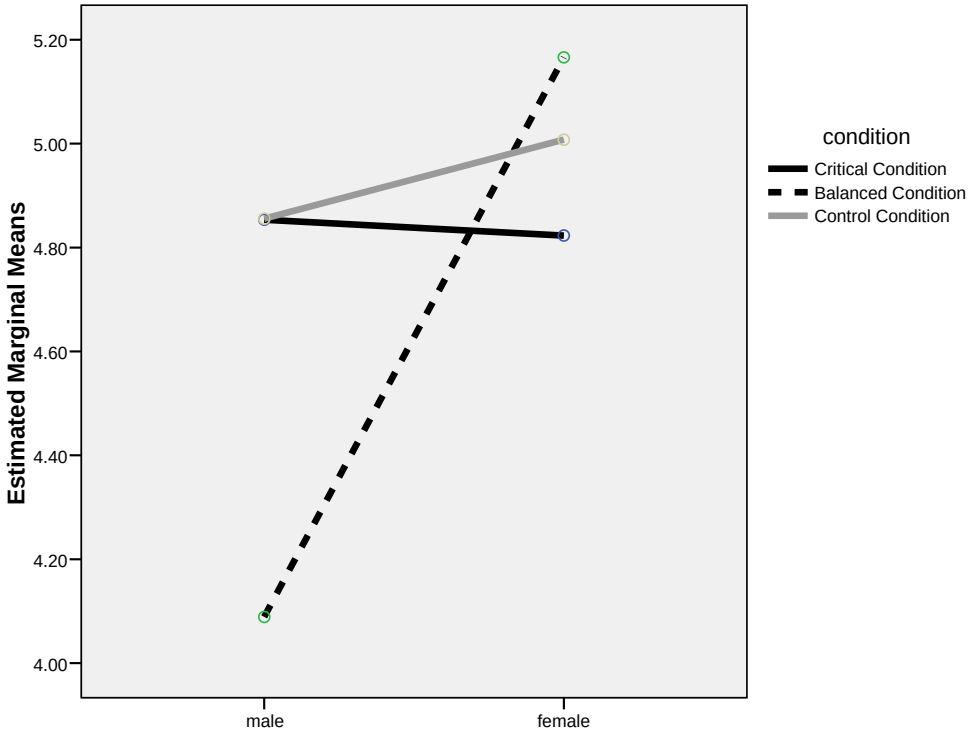


Figure 8

An Interaction Effect of Condition and Gender on Similarity in the Second Phase of the Study

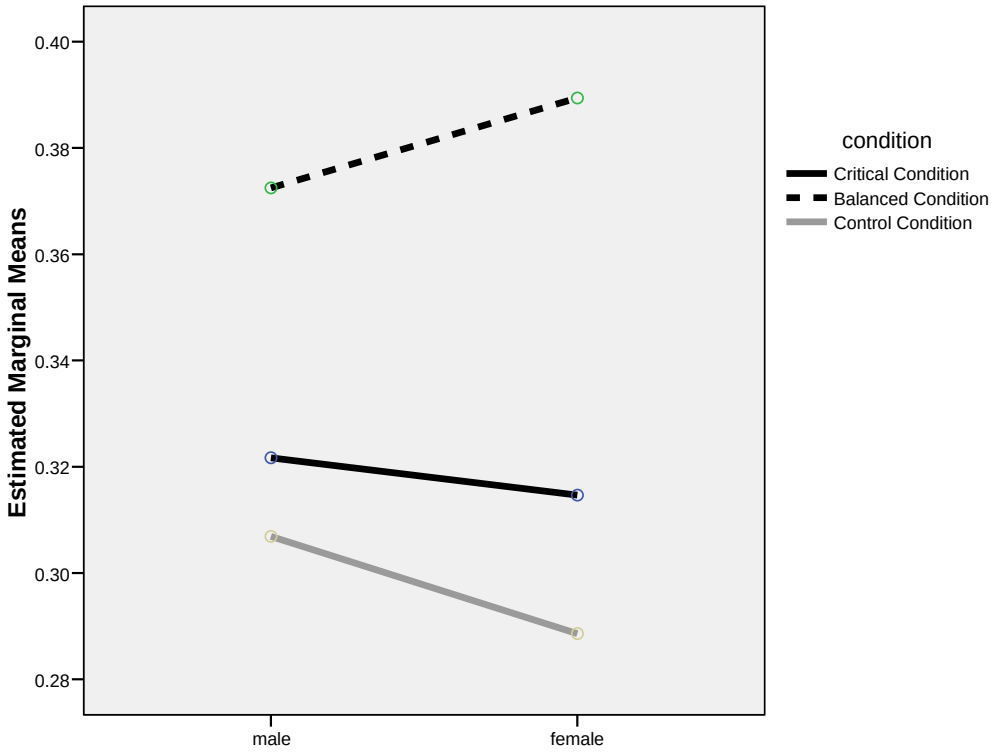


Figure 9

An Interaction Effect of Condition and Gender on Negative Expectancies in the Second Phase of the Study

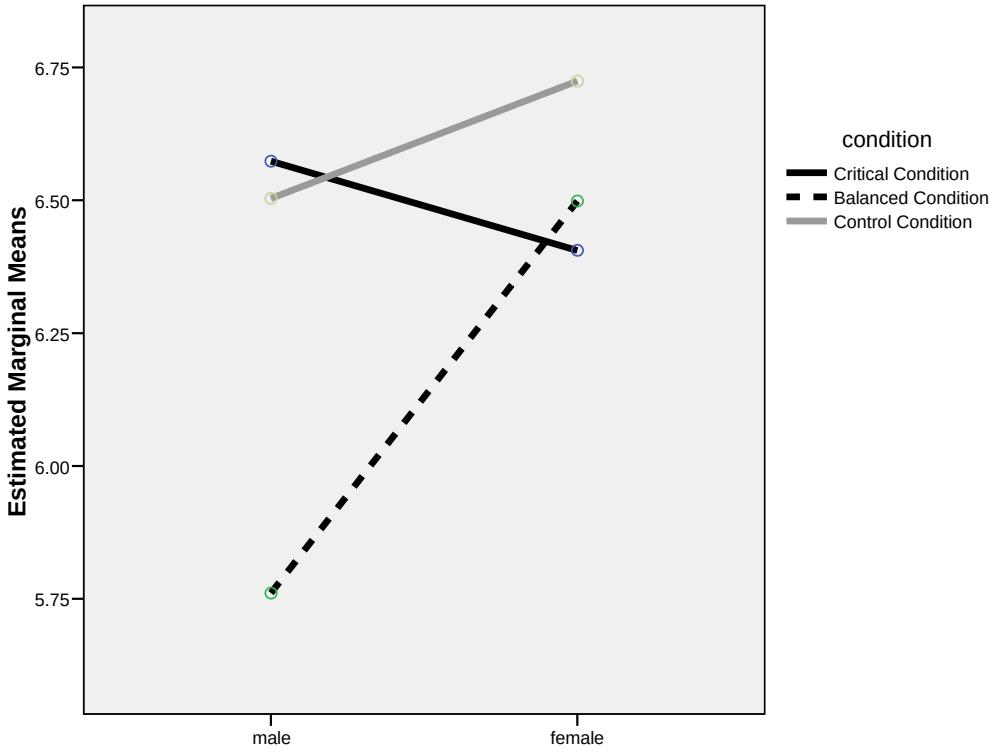


Figure 10

An Interaction Effect of Condition and Gender on Emotional Engagement

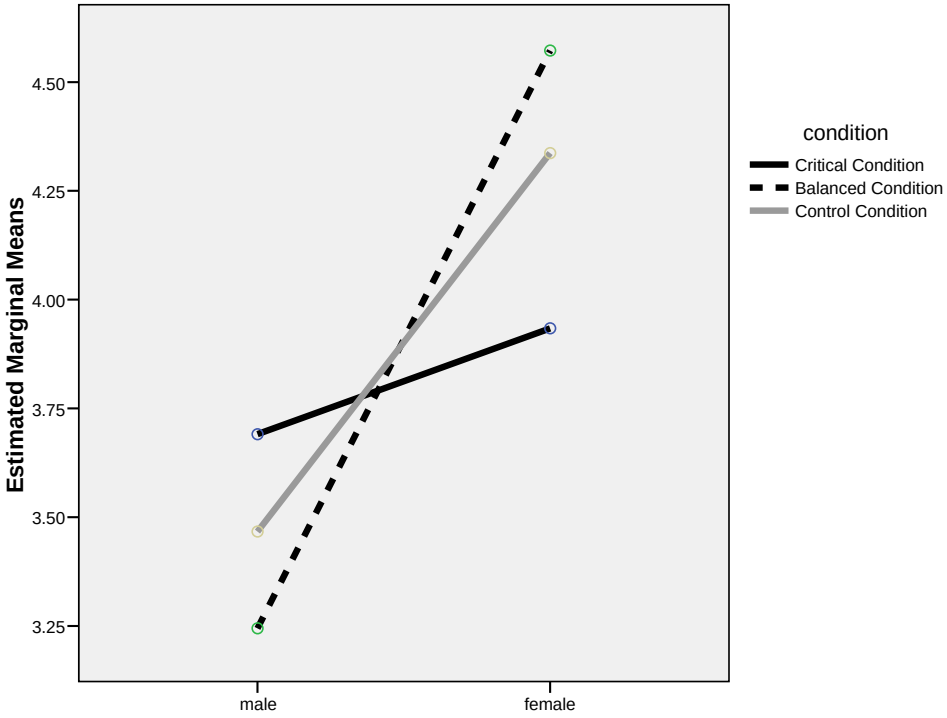


Figure 11

An Interaction Effect of Condition and Gender on Cognitive involvement

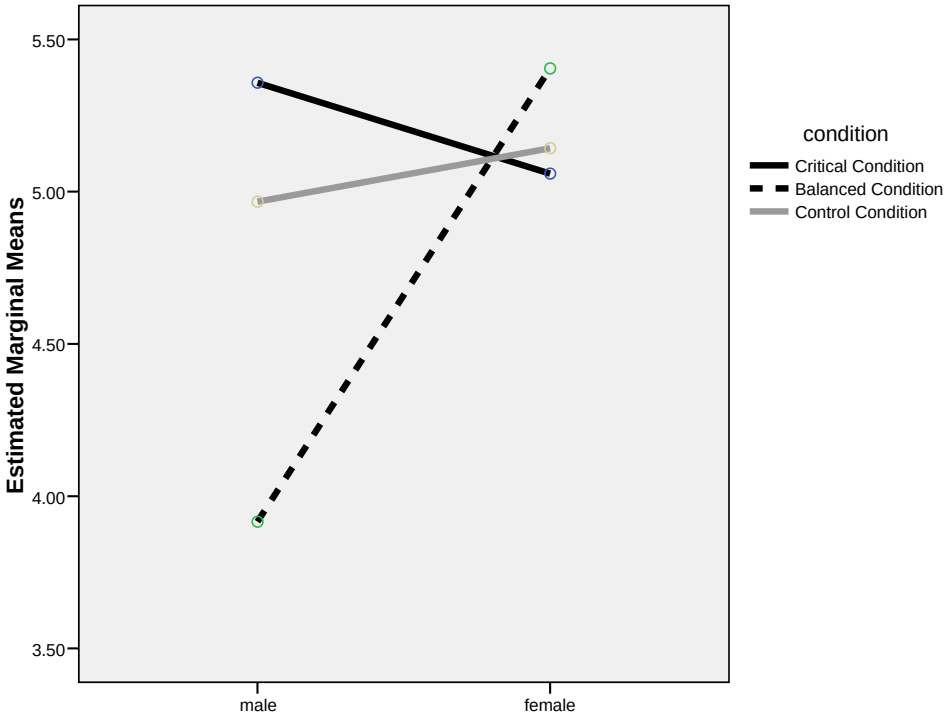


Table 1

Detailed Random Assignment of Conditions and Pro-Health Entertainment (PHE) Clips

School	Periods	Condition	Alcohol Stimuli	PHE Clip
First Wave of Data Collection				
Moscow Middle School (January 9th to January 10th, 2008)				
Waitsburg High School (January 14th, 2008)				
Lind Junior/Senior High School (January 17th to January 18th, 2008)				
Moscow (7th)	1	Control	3 E: Guinness-Rugby: Animation, tough, strong, sports linking together with beer F: Budweiser-Donkey: Animal, cute, funny	1 One Tree Hill
Moscow (7th)	2	E2: balance	1 A: Bud Light-Monkey: animal (monkey) and funny B: Keystone Light Beer-Blue tooth: funny, smooth, social interaction	2 Saved by the Bell
Moscow (7th)	3	E1: negative	2 C: Heineken-Brad Pitt-Celebrity, smooth, rich D: Budweiser-Clydesdale snow fight: animal (horses), funny, cute, sport	3 Dawson's Creek
Moscow (7th)	4	E1: negative	2 C: Heineken-Brad Pitt-Celebrity, smooth, rich D: Budweiser-Clydesdale snow fight: animal (horses), funny, cute, sport	2 Saved by the Bell
Waitsburg (9th)	5	E2: balance	1 A: Bud Light -Monkey: animal (monkey) and funny B: Keystone Light Beer-Blue tooth: funny, smooth, social interaction	1 One Tree Hill
Lind (7th)	6	Control	3 E: Guinness-Rugby: Animation, tough, strong, sports linking together with	3 Dawson's Creek

			beer F: Budweiser-Donkey: Animal, cute, funny	

Second Wave of Data Collection

Colfax High School (February 27th to February 28th, 2008)

Waitsburg High School (March 3rd, 2008)

Lind Junior/Senior High School (March 10th to March 11th, 2008)

Colfax High (9th)	1	Control	2 C: Heineken-Brad Pitt-Celebrity, smooth, rich D: Budweiser-Clydesdale snow fight: animal (horses), funny, cute, sport	1. One tree hill
Colfax High(9th)	2	E2: balance	1 A: Bud Light -Monkey: animal (monkey) and funny B: Keystone Light Beer-Blue tooth: funny, smooth, social interaction	2. Saved by the bell-new class
Colfax High (10th)	3	E1: negative	3 E: Guinness-Rugby: Animation, tough, strong, sports linking together with beer F: Budweiser-Donkey: Animal, cute, funny	3. Dawson's Creek
Colfax High (10th)	4	E1: negative	1 A: Bud Light -Monkey: animal (monkey) and funny B: Keystone Light Beer-Blue tooth: funny, smooth, social interaction	2. Saved by the bell-new class
Colfax High (10th)	5	Control	2 C: Heineken-Brad Pitt-Celebrity, smooth, rich D: Budweiser-Clydesdale snow fight: animal (horses), funny, cute, sport	3. Dawson's Creek
Waitsburg High (9th)	6	E2: balance	3 E: Guinness-Rugby: Animation, tough, strong, sports linking together with beer F: Budweiser-Donkey:	1. One tree hill

			Animal, cute, funny	
Lind 8th	7	E1: negative	2 C: Heineken-Brad Pitt-Celebrity, smooth, rich D: Budweiser-Clydesdale snow fight: animal (horses), funny, cute, sport	1. One tree hill
Lind 9th	8	Control	1 A: Bud Light -Monkey: animal (monkey) and funny B: Keystone Light Beer-Blue tooth: funny, smooth, social interaction	2. Saved by the bell-new class
Lind 10th	9	E2: balance	3 E: Guinness-Rugby: Animation, tough, strong, sports linking together with beer F: Budweiser-Donkey: Animal, cute, funny	3. Dawson's Creek

Table 2

Indices, Measures, and Reliability Scores for Media Literacy Component

Index	Measures	Reliability (α or *r*)	
		Pretest	Postttest
Realism	Real people act like people on TV.	α =.65	α =.77
	Real people look like people on TV.		
	Real people do things that people on TV do.		
	Things that happen on TV happen in real life.		
Desirability	When people on TV act sexy, it makes the shows more interesting to me.	α =.63	α =.68
	I like TV programs that show people having fun.		
	TV programs that show people acting popular get my attention.		
	My favorite TV programs include people having fun.		
Similarity	I do things that people on TV do.	α =.70	α =.78
	I like things that people on TV like.		
	I am like the people on TV.		
	People on TV are like my family.		
	I have as much fun as the people on TV do.		
Identification	I want to live my life like people on TV.	*r*=.43***	*r*=.56***

	I want to have as much fun as the people on TV do.		
Positive Expectancies	Drinking alcohol makes a person happy.	α =.84	α =.85
	Drinking alcohol helps make a person have more fun.		
	Drinking alcohol makes a person more grown-up.		
	Drinking alcohol helps a person make more friends.		
	Drinking alcohol helps a person feel relaxed.		
	Drinking alcohol helps a person feel confident.		
Negative Expectancies	Drinking alcohol could get a person in trouble with your parents.	α =.64	α =.81
	Drinking alcohol could make a person feel sick to stomach.		
	Drinking alcohol can harm a person's health.		
	Drinking alcohol could get a person arrested.		
	Drinking alcohol will get a person into trouble with the police.		
Self-Efficacy	I can influence whether my friends use alcohol.	α =.68	α =.75
	I can talk to friends about the danger of alcohol use.		
	I can resist the influence beer ads have on me.		
	I feel comfortable saying no to people if they offer me alcohol.		
Advertising Trust	Advertisers care about what is good for you.	α =.60	α =.76
	Alcohol ads tell the truth.		

	You can believe what people in commercials say or do.		
	The products advertised on TV are the best products to buy.		
Media Skepticism	I seek out additional information to confirm things I learn from TV.	α =.80	α =.89
	I think about things I see on TV before I accept them as believable.		
	It's important to think twice about what TV says.		
	I think about why someone created a message I see on TV.		
	I think about how someone created a message I see on TV.		
	I think about what the creator of a message wants me to think.		
Behavioral Intention	During the next year, do you think you will drink beer (more than just a few sips)?	α =.92	α =.93
	During the next year, do you think you will get drunk or drink a lot of alcohol at one time?		
	Before you leave high school, do you think you will drink beer (more than just a few sips)?		
	Before you leave high school, do you think you will get drunk or drink a lot of alcohol at one time?		
Knowledge	People like you spend an average of _____hours with the TV everyday.		
(Manipulation Check)	**Answer Categories: 2.5hrs 4.5hrs 5.5 hrs 6 hrs 8hrs**		
	Popular TV programs, such as *Grey's Anatomy* and *The Simpson*, charge		
	1 million for a one-minute ad. **Answer Categories: Yes No**		
	Alcohol advertising uses different ad hooks (techniques) to get my attention.		

Answer Categories: Yes No

When I watch TV, *I* am the product that is sold to the advertisers by TV networks.

Answer Categories: Yes No

Five teens are killed in the United States every 60 minutes because of teen drunk driving.

Answer Categories: Yes No

Advertisers spent _____ billion on alcohol advertising each year.

Answer Categories: 2 4 8 10 20

Today's lesson has taught me things I did not know before.

The lesson will be useful for me.

I enjoyed today's lesson very much.

The presenter of *TeenSmart TV program* knew what she was talking about.

The *TeenSmart TV* program made me think.

Compared with other alcohol education programs I have had, today's lesson was: **much worse, somewhat worse, about the same, somewhat better, much better.**

*** $p < .001$

Table 3

Descriptive Tables of All Indices across Conditions by Gender

		Critical Condition		**Balanced Condition**		**Control Condition**	
		Boy	Girl	Boy	Girl	Boy	Girl
		Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
		Range	*Range*	*Range*	*Range*	*Range*	*Range*
Realism	Pretest	3.38 (1.01)	3.14 (1.05)	3.70 (1.02)	3.73 (.99)	3.55 (1.23)	3.66 (1.17)
		1-5.25	*1.50-5.50*	*1.50-5.75*	*1.75-5.50*	*1.00-5.75*	*1.75-6.50*
	Posttest	2.96 (1.07)	3.20 (1.18)	3.39 (1.10)	3.12 (.96)	3.50 (.90)	3.41 (1.27)
		1-5.50	*1.25-6.75*	*1.75-6.50*	*1.25-5.00*	*2.00-5.25*	*1.00-5.50*
Desirability	Pretest	3.96 (1.17)	3.31 (1.24)	3.99 (.95)	3.69 (1.27)	3.98 (1.25)	3.53 (1.00)
		1.50-6.25	*1.00-5.75*	*2.00-6.00*	*1.00-6.50*	*1.75-6.50*	*1.75-5.75*
	Posttest	3.94 (1.11)	3.54 (1.29)	3.63 (1.17)	3.73 (1.04)	3.94 (1.34)	3.52 (1.14)
		2.50-6.50	*1.50-6.50*	*1.00-6.00*	*1.00-5.75*	*1.75-6.50*	*1.50-6.25*

Similarity	Pretest	2.60 (.88)	2.42 (.88)	2.71 (.88)	2.45 (.96)	2.69 (1.24)	2.49 (.92)
		1.25-5.25	*1.00-4.50*	*1.50-4.50*	*1.00-4.50*	*1.00-5.25*	*1.00-5.00*
	Posttest	2.33 (.81)	2.32 (1.07)	2.53 (.96)	2.51 (.78)	2.61 (1.07)	2.48 (1.10)
		1.00-4.75	*1.00-5.25*	*1.00-5.00*	*1.00-4.00*	*1.00-4.50*	*1.00-5.00*
Identification	Pretest	2.96 (1.49)	2.76 (1.25)	3.17 (1.30)	2.86 (1.22)	3.41 (1.75)	2.96 (.91)
		1.*00-6.50*	*1.00-6.00*	*1.00-6.00*	*1.00-5.00*	*1.00-6.50*	*1.00-4.50*
	Posttest	2.96 (1.47)	2.66 (1.45)	3.00 (1.48)	2.63 (1.05)	3.41 (1.36)	2.78 (1.19)
		1.00-7.00	*1.00-7.00*	*1.00-6.00*	*1.00-4.50*	*1.00-6.00*	*1.00-5.50*
Positive	Pretest	2.09 (1.21)	1.76 (.86)	2.22 (1.08)	2.13 (1.01)	2.30 (1.27)	1.79 (.96)
Expectancies		*1.00-4.83*	*1.00-4.00*	*1.00-5.00*	*1.00-4.00*	*1.00-5.17*	*1.00-4.50*
	Posttest	2.38 (1.33)	2.47 (1.28)	2.63 (1.06)	2.38 (1.12)	2.46 (1.20)	2.02 (1.28)
		1.00-4.67	*1.00-5.00*	1.*00-4.67*	*1.00-4.17*	*1.00-5.33*	*1.00-5.00*
Negative	Pretest	4.16 (2.11)	3.35 (2.09)	4.29 (1.58)	4.49 (1.97)	4.50 (1.98)	4.52 (1.79)
Expectancies		*1.00-6.40*	*1.00-6.20*	*1.00-6.00*	*1.00-6.40*	*1.00-7.00*	*1.00-6.20*
	Posttest	6.41 (.65)	6.37 (1.06)	5.65 (1.06)	6.39 (.69)	6.36 (1.03)	6.39 (.87)

		4.80-7.00	*3.40-7.00*	*3.40-7.00*	*4.80-7.00*	*2.60-7.00*	*3.80-7.00*
Self-efficacy	Pretest	5.79 (1.68)	6.03 (1.34)	5.43 (1.44)	5.91 (1.50)	5.45 (1.60)	5.93 (1.13)
		1.00-7.00	*1.33-7.00*	*2.00-7.00*	*1.00-7.00*	*1.00-7.00*	*3.00-7.00*
	Posttest	5.90 (1.51)	6.11 (1.23)	5.39 (1.69)	6.24 (1.08)	6.06 (1.26)	6.21 (1.02)
		1.33-7.00	*3.00-7.00*	*1.33-7.00*	*2.67-7.00*	*2.00-7.00*	*3.67-7.00*
Advertising	Pretest	5.84 (.89)	5.85 (.77)	5.76 (.84)	5.61 (.78)	5.64 (.93)	5.61 (1.21)
Skepticism		*4.25-7.00*	*3.75-7.00*	*4.00-7.00*	*4.00-7.00*	*3.50-7.00*	*2.50-7.00*
	Posttest	6.05 (.71)	5.86 (1.18)	5.68 (.83)	5.81 (.96)	5.75 (.95)	5.92 (.81)
		4.50-7.00	*1.50-7.00*	*4.00-7.00*	*3.00-7.00*	*3.50-7.00*	*4.50-7.00*
Media	Pretest	3.58 (1.30)	3.36 (1.09)	3.48 (1.47)	3.81 (1.22)	3.42 (1.33)	3.41 (1.21)
Skepticism		*1.00-7.00*	*1.00-5.50*	*1.00-7.00*	*1.17-6.83*	*1.00-6.00*	*1.00-5.67*
	Posttest	3.27 (1.44)	3.50 (1.37)	3.19 (1.75)	3.68 (1.33)	3.66 (1.51)	2.98 (1.07)
		1.00-7.00	*1.00-6.00*	*1.00-7.00*	*1.00-6.67*	*1.00-7.00*	*1.00-4.83*
Behavioral	Pretest	2.09 (1.25)	1.91 (1.15)	2.19 (1.67)	2.11 (1.52)	2.13 (1.60)	1.96 (1.73)

Intention		*1.00-6.50*	*1.00-4.50*	*1.00-7.00*	*1.00-6.00*	*1.00-7.00*	*1.00-7.00*
	Posttest	2.26 (1.44)	2.07 (1.35)	2.54 (1.75)	2.00 (1.40)	2.16 (1.73)	2.07 (1.89)
		1.00-7.00	*1.00-5.00*	*1.00-7.00*	*1.00-6.00*	*1.00-7.00*	*1.00-7.00*
PHE [a] -Trust		4.87 (1.22)	4.80 (1.26)	4.08 (1.45)	5.22 (1.01)	4.84 (1.41)	4.99 (1.23)
		2.67-7.00	*1.00-6.50*	*1.17-6.67*	*2.50-7.00*	*1.67-7.00*	*2.00-7.00*
PHE-Media		3.95 (1.75)	4.10 (1.42)	3.61 (1.79)	4.54 (1.64)	4.03 (1.71)	3.38 (1.18)
Skepticism		*1.00-7.00*	*1.00-7.00*	*1.00-7.00*	*1.33-7.00*	*1.00-7.00*	*1.00-5.50*
PHE-General		3.57 (1.59)	3.83 (1.39)	3.41 (.93)	4.19 (1.35)	4.00 (1.55)	4.21 (1.30)
Realism		*1.00-7.00*	*1.00-7.00*	*2.00-7.00*	*2.00-6.33*	*1.00-7.00*	*2.00-6.67*
PHE-Narrative		5.89 (1.10)	5.76 (1.21)	5.22 (1.50)	5.91 (.99)	5.28 (1.54)	5.67 (1.53)
Realism		*3.50-7.00*	*2.00-7.00*	*2.00-7.00*	*3.50-7.00*	*1.50-7.00*	*1.00-7.00*
PHE-Alcohol		5.21 (1.29)	5.12 (1.28)	4.63 (1.41)	5.62 (1.04)	5.07 (1.44)	5.70 (1.03)
Realism		*2.20-7.00*	*2.40-7.00*	*2.00-7.00*	*3.60-7.00*	*2.20-7.00*	*3.20-7.00*
PHE-		3.16 (.87)	3.09 (1.25)	3.25 (1.04)	3.82 (1.28)	3.31 (1.21)	3.10 (1.39)
desirability		*1.00-4.50*	*1.25-5.75*	*1.25-5.75*	*1.00-6.00*	*1.50-6.00*	*1.00-6.00*

PHE-Similarity	2.23 (.74)	2.37 (1.38)	2.55 (1.01)	2.70 (.99)	2.25 (1.06)	2.20 (1.23)
	1.00-4.00	*1.00-5.80*	*1.00-5.00*	*1.00-4.40*	*1.00-4.20*	*1.00-5.00*
PHE-	1.76 (.65)	1.70 (.80)	1.96 (.98)	1.86 (.85)	1.95 (1.12)	1.84 (1.08)
Identification	*1.00-3.40*	*1.00-4.00*	*1.00-4.20*	*1.00-4.20*	*1.00-5.00*	*1.00-5.40*
PHE-Positive	2.37 (1.30)	2.20 (1.20)	2.41 (1.07)	2.29 (1.19)	2.44 (1.32)	2.09 (1.28)
Expectancies	*1.00-5.00*	*1.00-5.33*	*1.00-4.83*	*1.00-5.67*	*1.00-4.83*	*1.00-5.00*
PHE-Negative	6.59 (.65)	6.45 (1.21)	5.75 (1.24)	6.53 (.75)	6.47 (.85)	6.71 (.59)
Expectancies	*5.00-7.00*	*1.40-7.00*	*2.20-7.00*	*3.80-7.00*	*4.00-7.00*	*4.80-7.00*
PHE-Self-	5.99 (1.21)	6.18 (1.02)	5.52 (1.43)	5.75 (1.56)	5.90 (1.09)	5.88 (1.22)
efficacy	*2.50-7.00*	*2.50-7.00*	*1.00-7.00*	*1.25-7.00*	*3.75-7.00*	*2.50-7.00*
PHE-	2.09 (1.21)	1.91 (1.20)	2.34 (1.58)	2.01 (1.43)	2.08 (1.71)	2.06 (1.89)
Behavioral	*1.00-5.00*	*1.00-5.50*	*1.00-7.00*	*1.00-5.75*	*1.00-7.00*	*1.00-7.00*
Intention						
PHE-Emotional	3.71 (1.39)	3.90 (1.28)	3.24 (1.56)	4.65 (1.30)	3.44 (1.35)	4.31 (1.38)
Engagement	*1.00-6.57*	*1.00-6.29*	*1.00-6.14*	*2.57-7.00*	*1.00-6.14*	*1.57-6.43*

PHE-Cognitive Involvement	5.38 (1.48) *2.33-7.00*	5.01 (1.33) *1.00-7.00*	3.91 (1.56) *1.00-7.00*	5.50 (1.04) *3.33-7.00*	4.94 (1.44) *1.67-7.00*	5.11 (1.23) *2.67-7.00*
PHE-Educational Value	3.21 (1.81) *1.00-7.00*	3.16 (1.54) *1.00-6.33*	3.01 (1.68) *1.00-7.00*	3.56 (1.32) *1.67-7.00*	2.99 (1.61) *1.00-7.00*	3.65 (1.53) *1.00-7.00*

[a] PHE stands for pro-health entertainment

Table 4

Factor Analysis of Pretest/Posttest Advertising Distrust and Media Skepticism

	Advertising Trust		Media Skepticism	
	Pretest Factor Loading	Posttest Factor Loading	Pretest Factor Loading	Posttest Factor Loading
The products advertised on TV are the best products to buy.	.77	.66		
Alcohol ads tell the truth.	.68	.78		
You can believe what people in commercials say or do.	.63	.83		
Advertisers care about what is good for you.	.55	.77		
I think about why someone created a message I see on TV.			.80	.83
I think about how someone created a message I see on TV.			.79	.86
I think about what TV producers want me to think.			.73	.78
I seek out additional information to confirm things I learn from TV.			.63	.73
I think about things I see on TV.			.58	.81

I think twice about what TV says.	.54	.78

Table 5

Indices, Measures, and Reliability Scores for PHE Component

Index	Measures	Reliability (α or r)
PHE-Trust	The show I just watched tried to tell me good things.	α =. 84
	This show was honest about what happened when people drink too much.	
	This show accurately portrayed the consequences of drinking.	
	You can believe everything you see in this show.	
	I trust what the show told me about alcohol use.	
	TV is a trustworthy source for the consequences of alcohol overdose.	
PHE -Skepticism	I seek out additional information to confirm things I learn from TV.	α =. 90
	I think about things I see on TV before I accept them as believable.	
	It's important to think twice about what TV says.	
	I think about why someone created a message I see on TV.	
	I think about how someone created a message I see on TV.	

	I think about what the creator of a message wants me to think.	
General Realism	Many people act like people in this show acted.	α =. 72
	Many people look like people in this show.	
	Many people do things that people in this show did.	
Narrative Realism	I understood why the events happened the way they did.	*r*=.28***
	At some points, I had a hard time making sense of what was going on in the program. (Recoded)	
Realism pertaining to	The story was convincing.	α =. 84
Alcohol Portrayals	This program showed how people act when drinking alcohol.	
	Things that happened on this show happen in real life.	
	The show I just watched showed what truly happened when you drink too much.	
	The characters showed me what would happen if I got drunk.	
PHE -Desirability	Characters in this show did fun things.	α =. 60
	I like the people in this show.	

	Characters in this show were attractive.	
	The characters in the show I just watched seemed to have fun.	
PHE -Similarity	People in the show I just watched were similar to people around me.	α =. 74
	Young people in the show I just watched were like people in my family.	
	I like the drinking behavior of the characters in this show.	
	Things that happened in this show often happen to people like me.	
	Young people in this show were like my friends.	
PHE -Identification	I wish I could be like the people I see on TV.	α =. 81
	I wish I could do things that characters on TV do.	
	I want to be like the main character in this show.	
	It would be fun to look like the main characters in this show.	
	People in this show do things I want to do.	
PHE -Positive	Drinking alcohol makes a person happy.	α =. 86
Expectancies	Drinking alcohol helps make a person have more fun.	

	Drinking alcohol makes a person more grown-up.	
	Drinking alcohol helps a person make more friends.	
	Drinking alcohol helps a person feel relaxed.	
	Drinking alcohol helps a person feel confident.	
PHE -Negative	Drinking alcohol could get a person in trouble with your parents.	α =. 86
Expectancies	Drinking alcohol could make a person feel sick to stomach.	
	Drinking alcohol can harm a person's health.	
	Drinking alcohol could get a person arrested.	
	Drinking alcohol will get a person into trouble with the police.	
PHE -Self-Efficacy	I can influence whether my friends use alcohol.	α =. 78
	I can talk to friends about the danger of alcohol use.	
	I can resist the influence beer ads have on me.	
	I feel comfortable saying no to people if they offer me alcohol.	
PHE -Behavioral	During the next year, do you think you will drink beer (more than just a few	α =. 93
Intention	sips)?	

	During the next year, do you think you will get drunk or drink a lot of alcohol at one time?	
	Before I leave high school, do you think you will drink beer (more than just a few sips)?	
	Before I leave high school, do you think you will get drunk or drink a lot of alcohol at one time?	
PHE -Emotional Engagement	The show I just watched was entertaining.	α =. 87
	I could feel the emotions the characters felt during the show.	
	When a main character suffered in some way during the program, I felt sad.	
	I enjoyed the show I just watched.	
	The show I just watched was boring. (Recoded)	
	I care about the characters in this show.	
	I was still thinking about what happened in the show after it was over.	
PHE -Cognitive Involvement	I can feel that what happened to the characters can happen to me too.	α =. 71
	I paid full attention to the show.	

	I was very involved in the show I just watched.	
PHE -Educational Value	I learned something about alcohol that I didn't know before.	α =. 77
	This show taught me something new.	
	This show was educational.	

*** $p < .001$

Table 6

Factor Loadings of Pro-Health Entertainment Realism Measures

	General Realism	Narrative Realism	Realism Pertaining to Alcohol Portrayals
Many people look like people in this show.	.79		
Many people act like people in this show acted.	.79		
Many people do things that people in this show did.	.76		
At some points, I had a hard time making sense of what was going on in the program. (Recoded)		.93	
I understood why the events happened the way they did.		.54	
The show I just watched showed what truly happened when you drink too much.			.84
This program showed how people act when drinking alcohol.			.83
The characters showed me what would happen if I got drunk.			.81

Things that happened on this show happen in real life.	.77
The story was convincing.	.55

Table 7

A Factor Analysis of Trust and Skepticism toward Pro-Health Entertainment

	PHE Trust	PHE Skepticism
This show was honest about what happened when people drink too much.	.82	
The show I just watched tried to tell me good things.	.80	
I trust what the show told me about alcohol use.	.80	
This show accurately portrayed the consequences of drinking.	.77	
You can believe everything you see in this show.	.68	
TV is a trustworthy source for the consequences of alcohol overdose.	.42	
I think about how someone created a message I see on TV.		.90
I think about why someone created a message I see on TV.		.87
I seek out additional information to confirm things I learn from TV.		.83
I think about things I see on TV before I accept them as believable.		.80
I think about what the creator of a message wants me to think.		.80
It's important to think twice about what TV says.		.49

Table 8

A Detailed Breakdown of Media Literacy Participants in the Pro-Health Entertainment Condition

	Negative Condition *n* (%)	Balanced Condition *n* (%)	Control Condition *n* (%)	Total
Dawson's Creek	18 (31.6%)	8 (13.3%)	21 (38.9%)	47
Saved by the Bell-New Class	25 (43.9%)	20 (33.3%)	6 (11.1%)	51
One Tree Hill	14 (24.6%)	32 (53.3%)	27 (50.0%)	73
Total	57	60	54	

Table 9

Manipulation Results of Knowledge between Treatment Groups and Control Groups

Manipulation Questions	Treatment Groups (Critical and Balanced Conditions) *n of corrected answers* (%)	Control Groups *n of corrected answers* (%)	χ^2
People like you spend an average of ___ hours with the TV everyday (answer categories: 2.5 hrs, 4.5 hrs, 5.5 hrs, 6 hrs, 8hrs). **Correct answer: 4.5 hrs**	95 (84.1%)	10 (19.2%)	$\chi^2(1, 165) = 64.70$ ***
Popular TV programs, such as *Grey's Anatomy* and *The Simpson*, charge 1 million for a one-minute ad (answer category: Yes/No). **Correct answer: Yes**	114 (98.3%)	30 (57.7%)	$\chi^2(1, 168) = 48.29$ ***
Alcohol advertising uses different ad hooks (techniques) to get my attention.	110 (94.8%)	41 (77.4%)	$\chi^2(1, 169) = 11.67$ ***
When I watch TV, I am the product that is sold to the advertisers by TV networks (answer category:	105 (90.5%)	13 (25.0%)	$\chi^2(1, 168) = 73.73$ ***

Yes/No).			
Correct answer: Yes			
Five teens are killed in the United States every 60 minutes because of teen drunk driving (answer categories: Yes/No).	77 (67.0%)	8 (15.1%)	$\chi^2(1, 168) = 39.04$ ***
Correct answer: No			
Advertisers spent __ billion on alcohol advertising each year (answer categories: 2, 4, 8, 10, 20).	106 (91.4%)	17 (32.7%)	$\chi^2(1, 168) = 63.06$ ***
Correct answer: 8			

*** $p<.001$

Table 10

Manipulation Results of Lesson Types between Negative Condition and Balanced Condition

Questions	Negative Condition *M* (*SD*)	Balanced Condition *M* (*SD*)	*F* statistics
Today's lesson only taught me about things that are bad on TV.	4.67(1.87)	3.53(1.81)	$F(1, 114)=11.11$***
Today's lesson only taught me about things that are both good and bad on TV.	3.61 (1.99)	5.41(1.76)	$F(1, 114)=26.44$ ***
Today's lesson focused on good things on TV.	2.02 (1.19)	3.28 (1.64)	$F(1, 114)=22.12$ ***

*** $p<.001$

Table 11

Summary of Overall Results

	Main Effects		Interaction Effects
Media Literacy Index	Condition	Gender	Condition X Gender
Realism			**Boy: Control > Critical** [a]
Desirability			
Similarity			
Identification			
Positive Expectancies			
Negative Expectancies	**Critical > Balance** [a] **Control > Balance**	**Girl > Boy**	**Boy: Critical > Balance** [a] **Boy: Control> Balance**
Self-Efficacy			
Advertising Trust			

Media Skepticism			**Girl: Balance> Control** [a]
Behavioral Intention			

	Main Effects		Interaction Effects
PHE Index	Condition	Gender	Condition X Gender
PHE-trust		**Girl > Boy**	**Boy: Critical> Balanced**
			Boy: Control>Balanced
PHE -Skepticism			**Girl: Balanced > Control**
			Boy: Critical > Balanced [a]
General Realism		**Girl > Boy**	
Narrative Realism			
Realism Pertaining to		**Girl > Boy**	
Alcohol Portrayals			
PHE -Desirability		**Girl > Boy**	
PHE -Similarity	**Balanced> Control**		

	Balanced > Critical		
PHE -Identification			
PHE -Positive			
Expectancies			
PHE -Negative	**Critical >Balanced**	**Girl > Boy**	**Boy: Critical > Balanced**
Expectancies	**Control> Balanced**		**Boy: Control> Balanced**
PHE -Self-Efficacy	**Critical > Balanced**		
PHE -Behavioral			
Intention			
PHE -Emotional		**Girl > Boy**	**Girl: Balanced > Critical**
Engagement			
PHE -Cognitive	**Critical > Balanced**	**Girl > Boy**	**Boy: Critical > Balanced**
Involvement			**Boy: Control> Balanced**
PHE -Educational Value		**Girl > Boy**	

[a] Fully support or partially support the proposed hypothesis

Table 12

Indices, Measures, and Reliability Scores for Experiment 2

Index	Measures	Reliability (α or *r*)
General Realism	Many people act like people in this show acted.	.66
	Many people look like people in this show.	
	Many people do things that people in this show did.	
Realism pertaining to Alcohol Portrayals	This program showed how people act when drinking alcohol.	.84
	The show I just watched showed what truly happened when you drink too much.	
	The characters showed me what would happen if I got drunk.	
Desirability	D1 I like the young people in this show.	*r*=34***
	D2 Characters in this show were attractive.	
Similarity	Young people in the show I just watched were similar to people around	*r*=.45***

	me.	
	Young people in this show were like my friends.	
Identification	I wish I could do things that characters on TV do.	.62
	I want to be like the main character in this show.	
	It would be fun to look like the main characters in this show.	
Positive Expectancies	Drinking alcohol helps make a person have more fun.	.60
	Drinking alcohol makes a person more grown-up.	
	Drinking alcohol helps a person feel relaxed.	
Negative Expectancies	Drinking alcohol could get a person in trouble with your parents.	*r*=.44***
	Drinking alcohol could make a person feel sick to stomach.	
Self-Efficacy	I can talk to friends about the danger of alcohol use.	.53***
	I feel comfortable saying no to people if they offer me alcohol.	
Behavioral Intention	During the next year, do you think you will drink beer (more than just a	.93

	few sips)?	
	During the next year, do you think you will get drunk or drink a lot of alcohol at one time?	
	Before I leave high school, do you think you will drink beer (more than just a few sips)?	
	Before I leave high school, do you think you will get drunk or drink a lot of alcohol at one time?	
Enjoyment of the show	The show I just watched was entertaining.	*r*=.80 ***
	I enjoyed watching the show.	
Emotional Engagement	I could feel the emotions the characters felt during the show.	.71
	I felt sad when a main character suffered in some way during the program.	
	I was still thinking about what happened in the show after it was over.	
Cognitive Involvement	I paid full attention to the show.	.44***
	I was very involved in the show I just watched.	
PHE -Educational Value	I learned something about alcohol that I didn't know before.	.71

	This show taught me something new about alcohol.	
	This show was educational.	
PHE -trust	The show I just watched tried to tell me not to drink alcohol.	*r*= 34***
	This show was honest about what happened when people drink too much.	
PHE -Skepticism	I think about things I see on TV before I accept them as believable.	.62
	It's important to think twice about what TV says.	
	I think about why someone created a message I see on TV.	
	I seek out additional information to confirm things I learn from TV.	

p<.001 ***

Table 13

Result Summary of Experiment 2

Indices	Condition	Gender
General Realism	Positive>Critical	Girl >Boy
	Positive>Control	
Narrative Realism		
(Absent from the post-hoc study)		
Realism Pertaining to Alcohol		Girl>Boy
Portrayals		
Desirability		
Similarity	Positive>Critical	
Identification		Boy>Girl
Positive Expectancies		
Negative Expectancies		
Self-Efficacy		Girl>Boy

Behavioral Intention		Girl<Boy
Enjoyment of the show	Control>Critical	
Emotional Engagement	Positive>Critical	Girl>Boy
	Positive>Control	
Cognitive Involvement		Girl>Boy
Educational Value		
Trust		Girl>Boy
Media Skepticism	Positive>Critical	
	Control>Critical	

Table 14

Comparisons of Experiment 1 and Experiment 2

		Condition		**Gender**		**Condition X Gender**
General Realism	Exp 1		Exp 1	Girl > Boy	Exp 1	
	Exp 2	Positive> Critical Positive>Control	Exp 2	Girl >Boy	Exp 2	
Narrative Realism	Exp 1		Exp 1		Exp 1	
	Exp 2	NA	Exp 2	NA	Exp 2	NA
Realism pertaining to alcohol portrayals	Exp 1		Exp 1	Girl > Boy	Exp 1	
	Exp 2		Exp 2	Girl>Boy	Exp 2	
Desirability	Exp 1		Exp 1	Girl > Boy	Exp 1	
	Exp 2		Exp 2		Exp 2	

Similarity	Exp 1	Balanced>Control Balanced > Critical	Exp 1		Exp 1	
	Exp 2	Positive> Critical	Exp 2		Exp 2	
Identification	Exp 1		Exp 1		Exp 1	
	Exp 2		Exp 2	Boy>Girl	Exp 2	
Positive Expectancies	Exp 1		Exp 1		Exp 1	
	Exp 2		Exp 2		Exp 2	
Negative Expectancies	Exp 1	Critical >Balanced Control> Balanced	Exp 1	Girl > Boy	Exp 1	Boy: Critical > Balanced Boy: Control> Balanced
	Exp 2		Exp 2		Exp 2	
Self-Efficacy	Exp 1	Critical > Balanced	Exp 1		Exp 1	

	Exp 2		Exp 2	Girl>Boy	Exp 2	
Behavioral Intention	Exp 1		Exp 1		Exp 1	
	Exp 2		Exp 2	Girl>Boy	Exp 2	
Enjoyment of the Show	Exp 1	NA	Exp 1	NA	Exp 1	NA
	Exp 2	Control> Critical	Exp 2		Exp 2	
Emotional Engagement	Exp 1		Exp 1	Girl > Boy	Exp 1	Girl: Balanced > Critical
	Exp 2	Positive> Critical Positive>Control	Exp2	Girl>Boy	Exp2	
Cognitive Involvement	Exp 1	Critical > Balanced	Exp 1	Girl > Boy	Exp 1	Boy: Critical > Balanced Boy:

						Control> Balanced
	Exp 2		Exp 2	Girl>Boy	Exp 2	
Educational Value	Exp 1		Exp 1	Girl>Boy	Exp 1	
	Exp 2		Exp 2		Exp 2	
Trust	Exp 1		Exp 1	Girl>Boy	Exp 1	
	Exp 2		Exp 2	Girl>Boy	Exp 2	
Media Skepticism	Exp 1		Exp 1		Exp 1	Girl: Balanced > Control Boy: Critical > Balanced
	Exp 2	Positive> Critical Control> Critical	Exp 2		Exp 2	

APPENDIX A

Letter to Principals and Teachers-Version 1

Media Education Curriculum for Middle and High School Students

Yvonnes Chen, Doctoral Candidate
yccliu@wsu.edu or 509-432-4901
Erica Austin, Professor
eaustin@wsu.edu or 509-335-1556

School of Communication
Washington State University,
Communication Addition 101
/PO Box 642520
Pullman, WA 99164-2520

- **GOAL**: To raise middle and high school students' awareness of the media and the inaccurate messages presented in the media related to alcohol.

- **EARL**: This program complements Washington State Essential Academic Learning Requirements Grade Level Expectations for 7th to 10th graders
  - Reading: a) Apply an understanding of printed and electronic text features to locate information and comprehend text; b) Analyze informational text for similarities and differences and cause and effect relationships.
  - Communication: Analyze mass media for bias and the use of persuasive techniques.
  - Social Studies: Analyze and evaluate informational materials for relevance in meeting a specific purpose.
  - Eligible for WASL's requirements.

- **CURRICULUM**: Two class periods within a week (two 45 minutes).
  - All materials, including lesson plans, will be provided by program instructors.
  - Teachers only will be asked to assist with questionnaire and consent forms distribution and collection.
    - Distribute parental consent forms two weeks prior to the program implementation.
    - Distribute first questionnaire (homework) a week prior to the program implementation
  - First class period: Exchange half of the students to the other classroom. Nobody will feel bad being left out and nobody will feel bad. Then administer a lesson and a short questionnaire. (For students who do not have parental consent, they can sit quietly in the classroom without answering any questionnaire.)
  - Second class period: Watch a media clip promoting health and a short questionnaire.
  - There are relatively few risks associated with this study for students.
  - Students will receive small incentives (i.e. a pencil) for participation.

- **WHY IS MEDIA EDUCATION IMPORTANT?**: Students are spending more time with the media than with family members. By teaching students this lesson, we are giving them a life-long skill to be more critical of media messages, but also to be more astute, informed citizen.

- **FREE EVALUATION**: document how much students have learned and improved. Principals, teachers and students will receive a synthesized report.

- **TEACHERS WILL GET**: instructional materials for teachers who are interested in building critical thinking skills about alcohol media messages.

- **PARENTS WILL GET**: a newsletter summarizing the study and ways they can use media. I also will speak at a parent-education forum to share this program with parents.

APPENDIX B

Letter to Principals and Teachers-Version 2

Media Education Curriculum for Middle and High School Students

Yvonnes Chen, Doctoral Candidate
yccliu@wsu.edu or 509-432-4901
Erica Austin, Professor
eaustin@wsu.edu or 509-335-1556

School of Communication
Washington State University,
Communication Addition 101
/PO Box 642520
Pullman, WA 99164-2520

Overview

My name is Yvonnes Chen, and I am a doctoral candidate working with Dr. Erica Austin in the Edward R. Murrow School of Communication at Washington State University. I am the principal investigator for a research study focused on teaching students to be more critical of the media, especially alcohol advertising. The goal of this study is to find out strategies that can be best used to educate students about the impact the media has on them.

The study is simple and will take place at school during the regular school day. If school principals, teachers and students choose to participate in the study, a time for the data collection will be scheduled at the convenience of the *school and teachers' schedules* so that we interfere the least with instructional time.

We will administer a media literacy program focused on the potential influence alcohol advertising has on students. This program complements Washington State Essential Academic Learning Requirements Grade Level Expectations for 7th to 10th graders. All materials, including lesson plans, will be provided by program instructors. Teachers are only asked to assist with obtaining consents from parents and students.

This program will take two class periods within a week to implement (approximately 45 minutes each). A week prior to the lesson, we will ask students questions about the media and alcohol advertising. Then, a media education lesson will be implemented and students will then answer the same questionnaire. In the second class period, students will watch a media clip promoting health and will answer a short questionnaire. This procedure allows us to compare the improvements of students after the lesson. We believe that there are relatively few risks associated with this study for you and your students. No students will be left out and nobody will feel bad. Students will receive small incentives (i.e. a pencil) for participation.

In appreciation of your staffs' assistance, I will provide instructional materials for teachers who are interested in building critical thinking skills about alcohol media messages. I also am happy to provide materials for parents (e.g., a newsletter summarizing the study and ways they can use media) or speak at a parent-education forum.

The information we collect will be kept private and will be used only by myself, Dr. Austin, and the other trained research assistants. This project is currently under-

reviewed by the Institutional Review Board at Washington State University. Each student will be given an identification number and this number will be used instead of names for recording information. The individual responses will not be shared with anyone else. Responses are strictly confidential and will not be identifiable in any reports resulting from this study.

APPENDIX C

An Example of Distribution Instruction for Teachers

Dear Mr. Hettick and Mr. Millet,

Thank you for helping me distribute the materials necessary for the *TeenSmart TV* project. For your convenience, each green folder contains a set of parental consent forms and the first worksheets. There are 120 folders in this box. I hope this will help facilitate the distribution process.

Here are the instructions:

- **Please announce**: When students open the folder, they will see the parental consent form on the left-hand side pocket and the first set of worksheets on the right-hand side pocket.

- **Please announce**: To encourage students to turn in parental consent forms and the first worksheets, please tell students that I will give them **a surprise gift** in return for this favor. I will distribute the gift after the whole program evaluation is finished. (In fact, I will give *everyone* in the classroom a gift because I don't want some students to be left out. But please don't tell them up-front. ☺)

- **The parental consent form**: Please ask students to bring this form to their parents/guardians. My contact information is provided on the form and their parents/guardians can contact me directly if they have any questions. FYI, here is my contact information:

  Yvonnes Chen
  (509) 432-4901
  yccliu@wsu.edu
  Communication Addition 101, PO Box 642520
  Washington State University, Pullman, WA, 99164-2520

- **The booklet (including the student assent form and an instruction for filling out the booklet)**: Once students receive permission from their parents/ guardians, they can determine whether or not to complete the first worksheets. The whole process is entirely voluntary and students will not be punished if they decide not to participate in this project.

- **Collect the forms**: It would be wonderful if you can help collect the parental consent forms and the booklets. Please collect them before Wednesday, February 27 and put them in the box. If we can collect everything prior to this date, it will help the program implementation.

- If students fill out the first set of worksheets without parental consent, they can still turn them in. I, however, will not use their responses.

- This project has been approved by the Washington State University Institutional Review Board. Contact information: IRB, Office of Research Assurances
  (509) 335-3668, irb@wsu.edu, Office of Research Assurance, PO Box 643005, Pullman, WA, 99164-3005

Again, thank you very much and I will see you soon.

Yvonnes

APPENDIX D

Detailed *TeenSmart TV* Lesson Plan

TeenSmart TV Lesson Plan

Session 1

	Lesson	Materials needed	Time	Activity
1	Introduce general media use with a specific focus on TV use and numbers of TV sets in the household	TV Diet	5 minutes	• Discussion • Have students answer the TV diet worksheet • Introduce how much TV kids their age watch everyday **Students will learn: People like you spend an average of 4.5 hours with TV everyday**.
2	The purpose of advertising: audiences are being sold by the advertisers	Media Economics	10 minutes	• Using the wheel we used in *Channel One* study as a foundation for discussion **Students will learn: When I watch TV, *I* am the product that is sold to advertisers.** **Students will learn: Grey's anatomy and Simpson charge about a million for a one-minute ad.**
3.	Ad hooks	Ad Hooks	6 minutes	**Students will learn: Alcohol advertising uses different techniques to get my attention.**
4.	Deconstructing alcohol advertising	2 alcohol TV ads	7 minutes	• Discussion • Have students compare the ad hooks appeared in alcohol advertising
5.	Alcohol misuse consequences and alcohol myths: Here is the truth that alcohol ad is not telling you	Alcohol Myths Alcohol Advertisers Want You to Believe	7 minutes	• Show a few examples in the alcohol myths handout. **Students will learn: a) One teen is killed in the United States every 60 minutes because of teen drunk driving; b) According to *The Surgeon General's Call to Action to Prevent and Reduce Underage Drinking*, out of all the traffic-related deaths each year, about 1 in 5 of these are young people *your* age killed because of alcohol-related crashes.**
5.1 (for the balanced condition)	Verify information		3 minutes	• Discussion: TV can be good for you. • In the future, when watching any kind of ads or show, compare what we have learned and think about alcohol misuse consequences. Try to confirm or verify the information you watch or read; compare alcohol misuse consequences and the information provided in the

				media • Always think about: Is this realistic? Is this right or wrong?
6.	Answer the posttest questionnaire		15 minutes	

Session 2:

1.	EE program promoting pro-health behavior	The show will be randomly selected from 3 available EE clips: Either on DVD or as a media clip	The show is about 15 minutes	• Before watching the clip, ask them to think about what they have learned from session 1.
2.	Answer EE questionnaire		20 minutes	

APPENDIX E

TeenSmart TV Parental Consent Forms

WASHINGTON STATE UNIVERSITY

Parent Permission Form

TeenSmart TV Project

Researcher: Yvonnes Chen, Doctoral Candidate, Edward R. Murrow School of Communication

Researcher's statement

Dear parent:

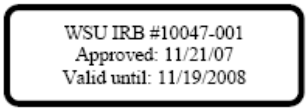
I am asking your permission to ask your child to be in a research study. The purpose of this consent form is to give you the information you will need to help you decide whether your child should be in the study or not. Please read the form carefully. You may ask questions about the purpose of the research, what I would ask your child to do, the possible risks and benefits, you child's rights as a volunteer, and anything else about the research or this form that is not clear. When I have answered all your questions, you can decide if you want your child to be in the study or not. This process is called 'informed consent.' We will give you a copy of this form for your records.

PURPOSE AND PROCEDURES:

The purpose of this project is to determine how well the curriculum teaches about the media, and how helpful the curriculum is for improving children's decision-making about alcohol in the future. Your child's class will be participating in a media education project designed to assess the implications of a media education curriculum on alcohol prevention education. Your child will benefit from the lessons, which strengthen their critical thinking abilities. Critical thinking abilities are proven to benefit their academic achievements.

Your child will be participating in two sessions of the media education curriculum. Before the first session, your child will be asked to fill out a worksheet asking them their attitudes toward the media. Then, at the first session, your child will receive a media education lesson and answer another identical worksheet after the lesson. This will take approximately 40-50 minutes. At the second session, your child will watch a 10-15 media clip depicting negative consequences of alcohol misuse from the popular family drama *One Tree Hill*, *Dawson's Creek* or *Saved by the Bell-New Class*, which teaches them to make better health decisions.

Your child's name will appear only on an assent form, which will be detached from your child's survey. No one will be able to match a child's name with the child's answers. Your child will receive a copy of the assent form. Your child's participation in this evaluation--which is entirely voluntary--is greatly appreciated and could be important for



helping to determine whether this curriculum is useful for schools and other educational enrichment programs. It also will suggest how teaching about media might be improved. The questions on the survey cover children's attitudes and beliefs about the media and alcohol issues, but there are no questions about their own alcohol use behavior except for what it might be in hypothetical situations. If any questions make your child uncomfortable, he or she can withdraw from the evaluation at any time and can decline to answer any questions on the questionnaire without penalty. If she or he feels uncomfortable after the program, your child can seek counseling services offered through Washington State University at 509-335-4511.

I would like to emphasize that your child's identity will remain strictly confidential, and information from this research will be secured in a locked research laboratory in the School of Communication at Washington State University. You can request a copy of the survey from Ms. Yvonnes Chen at the address shown below. The results will be available when the study is finished by the end of summer 2008, but no child's identity will be connected with the results.

This study has been reviewed and approved by the WSU Institutional Review Board for human subject participation. If you have questions about the study please contact Ms. Yvonnes Chen at 509-432-4901. If you have questions about your child's rights as a participant please contact the WSU IRB at 509-335-3668 or irb@wsu.edu.

Please do not hesitate to contact me if you have any questions.

Your help is deeply appreciated!

Sincerely,

Yvonnes Chen
Doctoral Candidate
Edward R. Murrow School of Communication
Washington State University
509-432-4901
yccliu@wsu.edu

(**WHETHER OR NOT YOU WANT YOUR CHILD TO PARTICIPATE, PLEASE SIGN THE PARENT PERMISSION FORM ON PAGE3 TO SAY 'YES' OR 'NO' AND RETURN THE FORM TO THE CLASS TEACHER**)

Parent Permission Form

TeenSmart TV Project

PLEASE RETURN IMMEDIATELY TO YOUR CHILD'S TEACHER
(YOU ALSO MAY FAX IT TO 509-335-1555)

I have read the informed consent form explaining the TeenSmart TV Project

And I DO ____ / DO NOT ____ give my permission for my

child _____to participate.
(please print)

Teacher's name: _____

Parent or Guardian Name (please print):

_____

Parent or Guardian Signature:

_____

Date: _____

Return this form to your child's teacher *or* to
Yvonnes Chen, School of Communication, Communication Addition 101,
Washington State University,
Pullman, WA 99164-2520
FAX 509-335-1555

WSU IRB #10047-001
Approved: 11/21/07
Valid until: 11/19/2008

APPENDIX F

TeenSmart TV Student Assent Forms

WASHINGTON STATE UNIVERSITY

Student Assent Form

TeensSmart TV Project

Researcher: Yvonnes Chen, Doctoral Candidate, Edward R. Murrow School of Communication

I am conducting a research study to evaluate the results of lessons about how the media work to help us improve the lessons. You may choose whether or not to participate in this study. Your participation in this pencil-and-paper survey will take about 10-15 minutes.

If you decide not to participate, please place this whole package in the folder. You will answer questions asking your attitudes and beliefs about the media and related alcohol use. Even though your parents are aware of this project, it is still up to you whether you want to answer any questions. If you start to participate but then change your mind, you may stop answering questions at any time without penalty. Some of the questions ask your attitudes and beliefs about alcohol, and you do not have to answer any questions that make you uncomfortable. If you choose to participate, your answers will not be shared with anyone else other than me.

No one, including your parents or teachers, will ever know your answers. I will never identify your name with any of your answers. I will keep the sheet with your name and questionnaire number locked away and separate from the questionnaire. No one will be able to match your name with your number, and your name will never be matched with your answers on the questionnaire. If you feel uncomfortable after the media education program, you can seek counseling services offered through Washington State University at 509-335-4511.

This study has been reviewed and approved by the WSU Institutional Review Board for human subject participation. If you have questions about the study please contact Ms. Yvonnes Chen at 509-432-4901 or yccliu@wsu.edu. If you have questions about your rights as a participant please contact the WSU IRB at 509-335-3668 or irb@wsu.edu.

If you want to participate in the study, please write your name neatly on the next page, on the line at the bottom of the letter, because we need your permission to let you participate.

Thanks for your help!

Sincerely,

Yvonnes Chen
Doctoral Candidate
Edward R. Murrow School of Communication
Washington State University
509-432-4901
yccliu@wsu.edu

WSU IRB #10047-001
Approved: 11/21/07
Valid until: 11/19/2008

Student's Statement:

I have read the information explaining the TeensSmart TV Project

, And I DO ____ / DO NOT ____ want to participate.

(please print)

Student's Name:_____

Student's Signature:_____

Date: _____

WSU IRB #10047-001
Approved: 11/21/07
Valid until: 11/19/2008

APPENDIX G

TeenSmart TV Pretest Instrument

16

TeenSmart TV

Advertising and Alcohol

Part I

WASHINGTON STATE UNIVERSITY

Student Assent Form

TeenSmart TV Project

Researcher: Yvonnes Chen, Doctoral Candidate, Edward R. Murrow School of Communication

I am conducting a research study how you think about the media. You may choose whether or not to participate in this study. Your participation in this pencil-and-paper survey will take about 10-15 minutes.

If you decide not to participate, please place this whole package in the folder and return to your teacher for collection. You will answer questions asking your attitudes and beliefs about the media and related alcohol use. Even though your parents are aware of this project, it is still up to you whether you want to answer any questions. If you start to participate but then change your mind, you may stop answering questions at any time without penalty. Some of the questions ask your attitudes and beliefs about alcohol, and you do not have to answer any questions that make you uncomfortable. If you choose to participate, your answers will not be shared with anyone else other than me.

No one, including your parents or teachers, will ever know your answers. I will never identify your name with any of your answers. I will keep the sheet with your name and questionnaire number locked away and separate from the questionnaire. No one will be able to match your name with your number, and your name will never be matched with your answers on the questionnaire. If you feel uncomfortable after the media education program, you can seek counseling services offered through Washington State University at 509-335-4511.

This study has been reviewed and approved by the WSU Institutional Review Board for human subject participation. If you have questions about the study please contact Ms. Yvonnes Chen at 509-432-4901 or ycclu@wsu.edu. If you have questions about your rights as a participant please contact the WSU IRB at 509-335-3668 or irb@wsu.edu.

If you want to participate in the study, please write your name neatly on the next page, on the line at the bottom of the letter, because we need your permission to let you participate.

Thanks for your help!

Sincerely,

Yvonnes Chen
Doctoral Candidate
Edward R. Murrow School of Communication
Washington State University
509-432-4901
ycclu@wsu.edu

WSU IRB #10047-001
Approved: 11 21 07
Valid until: 11-15-2008

2

These last questions are just so we know more about the students who have responded to our questions.

58. Age _____ (please write down your age)

59. What grade in school are you?
7th _____ 8th _____ 9th _____ 10th _____

60. Which are you? _____ Male _____ Female

61. Do you consider your family:
_____ very low income _____ low income _____ middle income
_____ upper middle income _____ high income
_____ very high income _____ Not sure

("income" means how much money your family has)

62. Please indicate your race or ethnicity (**mark all that describe you**):
_____ African-American _____ Latino/Latina/Hispanic
_____ Asian/Pacific Islander _____ Native American/Alaskan Native
_____ Caucasian (white) _____ Other (_____)
(Please write it down)

THANK YOU VERY MUCH!

15

A

B

A

B

A

B

14

Student's Statement:

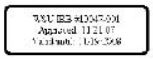
I have read the information explaining the TeenSmart TV Project, and I DO ____ / DO NOT ____ want to participate.

Student's name:_____
(please print)

Student's Signature:_____

Date: _____

- If you agree to participate, please turn to page 4 for instructions.
- If you do not agree to participate, please return this booklet to your teacher for collection.



3

Instructions

The purpose of this survey is to measure your opinions about the media and alcohol. It will take about 10-15 minutes to complete. Please circle the answer best reflects your opinion. There is no right or wrong answer for most of the questions and we really need to know what you think, so please give us your true opinion. Thanks for your help!

For example

Notice that when you circle 1, it means "Never" and when you circle 7, it means "Often."

	Never						Often
1. I drink orange juice.	1	2	3	4	5	6	7

If you drink orange juice on a daily base, you can circle 6 or 7.
If you drink orange juice three or four times per week, you can circle3, 4 or 5.
If you rarely drink orange juice, circle 1 or 2.

Another example

Notice that when you circle 1, it means that you "Strongly Disagree" with the statement. When you circle 7, it means you "Strongly Agree" with the statement.

	Strongly Disagree						Strongly Agree
1. I like holidays.	1	2	3	4	5	6	7

If you really like holidays, you would select 6 or 7.
If you somewhat like holidays, you select 3, 4, or 5
If you don't like holidays, then you select 1 or 2.

Are you ready?
Now turn to page 5 to start answering questions.

4

For the next 5 questions, imagine you would choose between one of the two toys in each question. Circle the letter that represents the toy to tell us **which toy you would like to have more.** **There is no right or wrong answer. Please give us your true opinion.**

A

B

A

B

13

Now we are going to ask you some questions about your behavioral intention.

Please circle the answer that best describes your opinion on a scale of 1-7, on which 1 means "**I definitely won't**" and 7 means "**I definitely will**."

	I definitely Won't						I definitely Will
During the next year,							
54. do you think you will drink beer (more than just a few sips)?	1	2	3	4	5	6	7
55. get drunk or drink a lot of alcohol at one time?	1	2	3	4	5	6	7
Before you are 21 years old,							
56. do you think you will drink beer (more than just a few sips)?	1	2	3	4	5	6	7
57. get drunk or drink a lot of alcohol at one time?	1	2	3	4	5	6	7

12

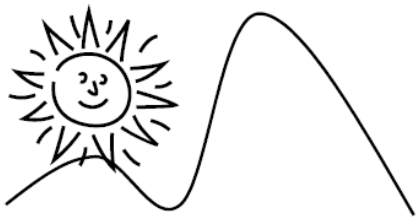
Please circle the answer that best describes your opinion on a scale of 1-7, on which 1 means "**Never**" and 7 means "**Often**."

	Never						Often
1. Real people act like people on TV.	1	2	3	4	5	6	7
2. When people on TV act sexy, it makes the shows more interesting to me.	1	2	3	4	5	6	7
3. I do things that people on TV do.	1	2	3	4	5	6	7
4. It would be fun to look like people on TV who drink alcohol.	1	2	3	4	5	6	7
5. Drinking alcohol makes a person happy.	1	2	3	4	5	6	7
6. Drinking alcohol could get a person in trouble with his or her parents.	1	2	3	4	5	6	7
7. I notice ways that TV advertisers use to get me to buy something.	1	2	3	4	5	6	7
8. Alcohol ads tell the truth.	1	2	3	4	5	6	7
9. I seek out additional information to confirm things I learn from TV.	1	2	3	4	5	6	7
10. I think about why someone created a message I see on TV.	1	2	3	4	5	6	7
11. My parents/guardians help me understand what I see on TV.	1	2	3	4	5	6	7

5

Please circle the answer that best describes your opinion on a scale of 1-7, on which 1 means "**Never**" and 7 means "**Often**."

	Never						Often
12. Real people look like people on TV.	1	2	3	4	5	6	7
13. I like TV programs that show people having fun.	1	2	3	4	5	6	7
14. I like things that people on TV like.	1	2	3	4	5	6	7
15. I want to live my life like people on TV.	1	2	3	4	5	6	7
16. Drinking alcohol helps make a person have more fun.	1	2	3	4	5	6	7



6

Now we are going to ask you some questions about your TV watching behavior.

Please circle your answers.

46. Do you have a TV in your bedroom?
Yes No

47. How much TV do you watch on a typical weekday during the school year ?

0 hour 1 hour 2 hours 3 hours 4 hours 5hours

6 +hours

48. How much TV do you watch on a typical weekend day during the school year ?

0 hour 1 hour 2 hours 3 hours 4 hours 5 hours

6 +hours

	Not At All						Very Regularly
49. How often do you watch drama (such as *Grey's Anatomy*)?	1	2	3	4	5	6	7
50. How often do you watch comedy (such as *Everybody Loves Raymond*)?	1	2	3	4	5	6	7
51. How often do you watch reality programming (such as the MTV's *The Real World*)?	1	2	3	4	5	6	7
52. How often do you watch Sports programming (football on ESPN)?	1	2	3	4	5	6	7
53. How often do you watch news (such as ABC news or CNN)?	1	2	3	4	5	6	7

11

Please circle the answer that best describes your opinion on a scale of 1-7, on which 1 means "**Strongly Disagree**" and 7 means "**Strongly Agree**."

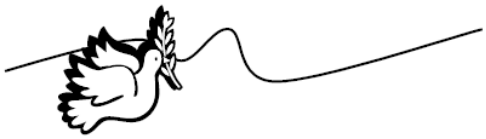
	Strongly Disagree						Strongly Agree
42. I can influence whether my friends use alcohol.	1	2	3	4	5	6	7
43. I can talk to friends about the danger of alcohol use.	1	2	3	4	5	6	7
44. I can resist the influence beer ads have on me.	1	2	3	4	5	6	7
45. I feel comfortable saying no to people if they offer me alcohol.	1	2	3	4	5	6	7

Please circle the answer that best describes your opinion on a scale of 1-7, on which 1 means "**Never**" and 7 means "**Often**."

	Never						Often
17. Drinking alcohol could make a person feel sick to stomach.	1	2	3	4	5	6	7
18. Advertisers care about what is good for you.	1	2	3	4	5	6	7
19. You can believe what people in commercials say or do.	1	2	3	4	5	6	7
20. I think about things I see on TV before I accept them as believable.	1	2	3	4	5	6	7
21. I think about how someone created a message I see on TV.	1	2	3	4	5	6	7
22. My parents/ guardians help me understand that some things on TV are not really true.	1	2	3	4	5	6	7
23. Real people do things that people on TV do.	1	2	3	4	5	6	7
24. TV programs that show people acting popular get my attention.	1	2	3	4	5	6	7
25. I am like the people on TV.	1	2	3	4	5	6	7
26. I want to have as much fun as the people on TV do.	1	2	3	4	5	6	7

Please circle the answer that best describes your opinion on a scale of 1-7, on which 1 means "**Never**" and 7 means "**Often**."

	Never						Often
27. Drinking alcohol makes a person more grown-up.	1	2	3	4	5	6	7
28. Drinking alcohol can harm a person's health.	1	2	3	4	5	6	7
29. The products advertised on TV are the best products to buy.	1	2	3	4	5	6	7
30. It's important to think twice about what TV says.	1	2	3	4	5	6	7
31. I think about what the creator of a message wants me to think.	1	2	3	4	5	6	7
32. My parents/ guardians explain what ads are trying to do.	1	2	3	4	5	6	7



Please circle the answer that best describes your opinion on a scale of 1-7, on which 1 means "**Never**" and 7 means "**Often**."

	Never						Often
33. Things that happen on TV happen in real life.	1	2	3	4	5	6	7
34. My favorite TV programs include people having fun.	1	2	3	4	5	6	7
35. People on TV are like my family.	1	2	3	4	5	6	7
36. Drinking alcohol helps a person make more friends.	1	2	3	4	5	6	7
37. Drinking alcohol could get a person arrested.	1	2	3	4	5	6	7
38. I have as much fun as the people on TV do.	1	2	3	4	5	6	7
39. Drinking alcohol helps a person feel relaxed	1	2	3	4	5	6	7
40. Drinking alcohol would get a person into trouble with the police.	1	2	3	4	5	6	7
41. Drinking alcohol helps a person feel confident.	1	2	3	4	5	6	7

APPENDIX H

TeenSmart TV Posttest Instrument-Experimental Group

16

TeenSmart TV

Advertising and Alcohol

Part II

WASHINGTON STATE UNIVERSITY

Student Assent Form

TeenSmart TV Project

Researcher: Yvonnes Chen, Doctoral Candidate, Edward R. Murrow School of Communication

I am conducting a research study to evaluate the results of lessons about how the media work to help us improve the lessons. You may choose whether or not to participate in this study. Your participation in this pencil-and-paper survey will take about 10-15 minutes.

If you decide not to participate, please sit quietly while your classmates fill out this booklet. You will answer questions asking your attitudes and beliefs about the media and related alcohol use. Even though your parents are aware of this project, it is still up to you whether you want to answer any questions. If you start to participate but then change your mind, you may stop answering questions at any time without penalty. Some of the questions ask your attitudes and beliefs about alcohol, and you do not have to answer any questions that make you uncomfortable. If you choose to participate, your answers will not be shared with anyone else other than me.

No one, including your parents or teachers, will ever know your answers. I will never identify your name with any of your answers. I will keep the sheet with your name and questionnaire number locked away and separate from the questionnaire. No one will be able to match your name with your number, and your name will never be matched with your answers on the questionnaire. If you feel uncomfortable after the media education program, you can seek counseling services offered through Washington State University at 509-335-4511.

This study has been reviewed and approved by the WSU Institutional Review Board for human subject participation. If you have questions about the study please contact Ms. Yvonnes Chen at 509-432-4901 or ycclu@wsu.edu. If you have questions about your rights as a participant please contact the WSU IRB at 509-335-3668 or irb@wsu.edu.

If you want to participate in the study, please write your name neatly on the next page, on the line at the bottom of the letter, because we need your permission to let you participate.

Thanks for your help!

Sincerely,

Yvonnes Chen
Doctoral Candidate
Edward R. Murrow School of Communication
Washington State University

509-432-4901
ycclu@wsu.edu

2

These last questions are just so we know more about the students who have responded to our questions.

63. Age _____ (please write down your age)

64. What grade in school are you?
7th _____ 8th _____ 9th _____ 10th _____

65. Which are you? _____ Male _____ Female

66. Do you consider your family:
_____ very low income _____ low income _____ middle income
_____ upper middle income _____ high income
_____ very high income _____ Not sure

("income" means how much money your family has)

67. Please indicate your race or ethnicity (**mark all that describe you**):
_____ African-American _____ Latino/Latina/Hispanic
_____ Asian/Pacific Islander _____ Native American/Alaskan Native
_____ Caucasian (white) _____ Other (_____)
(Please write it down)

15

Please circle the answer that best describes your opinion on a scale of 1-7, on which 1 means "**Strongly Disagree**" and 7 means "**Strongly Agree**."

	Strongly Disagree						Strongly Agree
54. Today's lesson only taught me about things that are bad on TV.	1	2	3	4	5	6	7
55. Today's lesson taught me about things that are both good and bad on TV.	1	2	3	4	5	6	7
56. Today's lesson focused on good things on TV.	1	2	3	4	5	6	7
57. Today's lesson taught me things I did not know before.	1	2	3	4	5	6	7
58. Today's lesson was useful for me.	1	2	3	4	5	6	7
59. Today's lesson was interesting.	1	2	3	4	5	6	7
60. I enjoyed today's lesson very much.	1	2	3	4	5	6	7
61. The presenter of *TeenSmart TV* program knew what she was talking about.	1	2	3	4	5	6	7
62. The *TeenSmart TV* program made me think.	1	2	3	4	5	6	7

Student's Statement:

I have read the information explaining the TeenSmart TV Project, and I DO ____ / DO NOT ____ want to participate.

Student's name:_____
(please print)

Student's Signature:_____

Date: _____

(Please turn to page 4 for instructions.)

- If you agree to participate, please turn to page 4 for instructions.
- If you do not agree to participate, please sit quietly while your classmates fill out this booklet. Thank you.

Instructions

If you already know how to fill out this booklet, turn to page 5 to start answering questions.

The purpose of this survey is to measure your opinions about the media and alcohol. It will take about 10-15 minutes to complete. Please circle the answer best reflects your opinion. There is no right or wrong answer for most of the questions and we really need to know what you think, so please give us your true opinion. Thanks for your help!

Notice that when you circle 1, it means "Never" and when you circle 7, it means "Often."

	Never						Often
1. I drink orange juice.	1	2	3	4	5	6	7

If you drink orange juice on a daily base, you can circle 6 or 7.
If you drink orange juice three or four times per week, you can circle3, 4 or 5.
If you rarely drink orange juice, circle 1 or 2.

Another example

Notice that when you circle 1, it means that you "Strongly Disagree" with the statement. When you circle 7, it means you "Strongly Agree" with the statement.

	Strongly Disagree						Strongly Agree
1. I like holidays	1	2	3	4	5	6	7

If you really like holidays, you would select 6 or 7.
If you somewhat like holidays, you select 3, 4, or 5
If you don't like holidays, then you select 1 or 2.

Are you ready?
Now turn to page 5 to start answering questions.

Now we are going to ask you some questions about how much you know about TV in general. Please circle your answers.

47. People like you spend an average of _____hours with the TV everyday.

2.5hrs 4.5hrs 5.5 hrs 6 hrs 8hrs

48. Popular TV programs, such as *Grey's Anatomy* and *The Simpson*, charge about 1 million for an one-minute ad.

Yes No

49. Alcohol advertising uses different ad hooks (techniques) to get my attention. **Yes No**

50. When I watch TV, *I* am the product that is sold to the advertisers by TV networks. **Yes No**

51. Every 60 minutes, five teens are killed in the United States because of teen drunk driving. **Yes No**

52. Advertisers spent _____ billion on alcohol advertising each year.

2 4 8 10 20

53. Compared with other alcohol education programs I have had, today's lesson was:

much worse somewhat worse about the same somewhat better much better

We are going to ask some questions about your behavioral intention. Please circle the answer that best describes your opinion on a scale of 1-7, on which 1 means "**I definitely won't**" and 7 means "**I definitely will**."

	I definitely Won't						I definitely Will
During the next year,							
43. do you think you will drink beer (more than just a few sips)?	1	2	3	4	5	6	7
44. get drunk or drink a lot of alcohol at one time?	1	2	3	4	5	6	7
Before you are 21 years old,							
45. do you think you will drink beer (more than just a few sips)?	1	2	3	4	5	6	7
46. get drunk or drink a lot of alcohol at one time?	1	2	3	4	5	6	7

12

For the next 5 questions, imagine you would choose between one of the two toys in each question. Circle the letter that represents the toy to tell us **which toy you would like to have more**. **There is no right or wrong answer. Please give us your true opinion.**

A

B

A

B

5

A

B

A

B

A

B

6

Please circle the answer that best describes your opinion on a scale of 1-7, on which 1 means "**Strongly Disagree**" and 7 means "**Strongly Agree**."

	Strongly Disagree						Strongly Agree
39. I can influence whether my friends use alcohol.	1	2	3	4	5	6	7
40. I can talk to friends about the danger of alcohol use.	1	2	3	4	5	6	7
41. I can resist the influence beer ads have on me.	1	2	3	4	5	6	7
42. I feel comfortable saying no to people if they offer me alcohol.	1	2	3	4	5	6	7

11

Please circle the answer that best describes your opinion on a scale of 1-7, on which 1 means "**Never**" and 7 means "**Often**."

	Never						Often
30. Things that happen on TV happen in real life.	1	2	3	4	5	6	7
31. My favorite TV programs include people having fun.	1	2	3	4	5	6	7
32. People on TV are like my family.	1	2	3	4	5	6	7
33. Drinking alcohol helps a person make more friends.	1	2	3	4	5	6	7
34. Drinking alcohol could get a person arrested.	1	2	3	4	5	6	7
35. I have as much fun as the people on TV do.	1	2	3	4	5	6	7
36. Drinking alcohol helps a person feel relaxed	1	2	3	4	5	6	7
37. Drinking alcohol would get a person into trouble with the police.	1	2	3	4	5	6	7
38. Drinking alcohol helps a person feel confident.	1	2	3	4	5	6	7

10

Please circle the answer that best describes your opinion on a scale of 1-7, on which 1 means "**Never**" and 7 means "**Often**."

	Never						Often
1. Real people act like people on TV.	1	2	3	4	5	6	7
2. When people on TV act sexy, it makes the shows more interesting to me.	1	2	3	4	5	6	7
3. I do things that people on TV do.	1	2	3	4	5	6	7
4. It would be fun to look like people on TV who drink alcohol.	1	2	3	4	5	6	7
5. Drinking alcohol makes a person happy.	1	2	3	4	5	6	7
6. Drinking alcohol could get a person in trouble with his or her parents.	1	2	3	4	5	6	7
7. I notice ways that TV advertisers use to get me to buy something.	1	2	3	4	5	6	7
8. Alcohol ads tell the truth.	1	2	3	4	5	6	7
9. I seek out additional information to confirm things I learn from TV.	1	2	3	4	5	6	7
10. I think about why someone created a message I see on TV.	1	2	3	4	5	6	7

7

Please circle the answer that best describes your opinion on a scale of 1-7, on which 1 means "**Never**" and 7 means "**Often**."

	Never						Often
11. Real people look like people on TV.	1	2	3	4	5	6	7
12. I like TV programs that show people having fun.	1	2	3	4	5	6	7
13. I like things that people on TV like.	1	2	3	4	5	6	7
14. I want to live my life like people on TV.	1	2	3	4	5	6	7
15. Drinking alcohol helps a person have more fun.	1	2	3	4	5	6	7

8

Please circle the answer that best describes your opinion on a scale of 1-7, on which 1 means "**Never**" and 7 means "**Often**."

	Never						Often
16. Drinking alcohol could make a person feel sick to stomach.	1	2	3	4	5	6	7
17. Advertisers care about what is good for you.	1	2	3	4	5	6	7
18. You can believe what people in commercials say or do.	1	2	3	4	5	6	7
19. I think about things I see on TV before I accept them as believable.	1	2	3	4	5	6	7
20. I think about how someone created a message I see on TV.	1	2	3	4	5	6	7
21. Real people do things that people on TV do.	1	2	3	4	5	6	7
22. TV programs that show people acting popular get my attention.	1	2	3	4	5	6	7
23. I am like the people on TV.	1	2	3	4	5	6	7
24. I want to have as much fun as the people on TV do.	1	2	3	4	5	6	7
25. Drinking alcohol makes a person more grown-up.	1	2	3	4	5	6	7
26. Drinking alcohol can harm a person's health.	1	2	3	4	5	6	7
27. The products advertised on TV are the best products to buy.	1	2	3	4	5	6	7
28. I think twice about what TV says.	1	2	3	4	5	6	7
29. I think about what TV producers want me to think.	1	2	3	4	5	6	7

9

APPENDIX I

TeenSmart TV Posttest Instrument-Control Group

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c

TeenSmart TV

Advertising and Alcohol

Part II

WASHINGTON STATE UNIVERSITY

Student Assent Form

TeenSmart TV Project

Researcher: Yvonnes Chen, Doctoral Candidate, Edward R. Murrow School of Communication

I am conducting a research study to evaluate the results of lessons about how the media work to help us improve the lessons. You may choose whether or not to participate in this study. Your participation in this pencil-and-paper survey will take about 10-15 minutes.

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Thanks for your help!

Sincerely,

Yvonnes Chen
Doctoral Candidate
Edward R. Murrow School of Communication
Washington State University

509-432-4901
yccliu@wsu.edu

WSU IRB [illegible]
Approved: [illegible]
[illegible]

These last questions are just so we know more about the students who have responded to our questions.

53. Age _____ (please write down your age)

54. What grade in school are you?
7th _____ 8th _____ 9th _____10th _____

55. Which are you? _____ Male _____ Female

56. Do you consider your family:
_____ very low income _____ low income _____ middle income
_____ upper middle income _____ high income
_____very high income _____ Not sure

("income" means how much money your family has)

57. Please indicate your race or ethnicity (**mark all that describe you**):
_____African-American _____ Latino/Latina/Hispanic
_____Asian/Pacific Islander _____ Native American/Alaskan Native
_____Caucasian (white) _____ Other (_____)
(Please write it down)

Student's Statement:

I have read the information explaining the TeenSmart TV Project, and I DO ____ / DO NOT ____ want to participate.

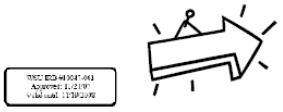
Student's name:_____
(please print)

Student's Signature:_____

Date: _____

(Please turn to page 4 for instructions.)

- If you agree to participate, please turn to page 4 for instructions.
- If you do not agree to participate, please sit quietly while your classmates fill out this booklet. Thank you.



Instructions

If you already know how to fill out this booklet, turn to page 5 to start answering questions.

The purpose of this survey is to measure your opinions about the media and alcohol. It will take about 10-15 minutes to complete. Please circle the answer best reflects your opinion. There is no right or wrong answer for most of the questions and we really need to know what you think, so please give us your true opinion. Thanks for your help!

Notice that when you circle 1, it means "Never" and when you circle 7, it means "Often."

	Never						Often
1. I drink orange juice.	1	2	3	4	5	6	7

If you drink orange juice on a daily base, you can circle 6 or 7.
If you drink orange juice three or four times per week, you can circle3, 4 or 5.
If you rarely drink orange juice, circle 1 or 2.

Another example

Notice that when you circle 1, it means that you "Strongly Disagree" with the statement. When you circle 7, it means you "Strongly Agree" with the statement.

	Strongly Disagree						Strongly Agree
1. I like holidays	1	2	3	4	5	6	7

If you really like holidays, you would select 6 or 7.
If you somewhat like holidays, you select 3, 4, or 5
If you don't like holidays, then you select 1 or 2.

Are you ready?
Now turn to page 5 to start answering questions.

Now we are going to ask you some questions about how much you know about TV in general. Please circle your answers.

47. People like you spend an average of _____hours with the TV everyday.

2.5hrs 4.5hrs 5.5 hrs 6 hrs 8hrs

48. Popular TV programs, such as *Grey's Anatomy* and *The Simpson*, charge about
1 million for an one-minute ad.
Yes No

49. Alcohol advertising uses different ad hooks (techniques) to get my attention. **Yes No**

50. When I watch TV, *I* am the product that is sold to the advertisers by TV networks. **Yes No**

51. Every 60 minutes, five teens are killed in the United States because of teen drunk driving. **Yes No**

52. Advertisers spent _____ billion on alcohol advertising each year.

2 4 8 10 20

We are going to ask some questions about your behavioral intention. Please circle the answer that best describes your opinion on a scale of 1-7, on which 1 means "**I definitely won't**" and 7 means "**I definitely will**."

	I definitely Won't						I definitely Will
During the next year,							
43. do you think you will drink beer (more than just a few sips)?	1	2	3	4	5	6	7
44. get drunk or drink a lot of alcohol at one time?	1	2	3	4	5	6	7
Before you are 21 years old,							
45. do you think you will drink beer (more than just a few sips)?	1	2	3	4	5	6	7
46. get drunk or drink a lot of alcohol at one time?	1	2	3	4	5	6	7

For the next 5 questions, imagine you would choose between one of the two toys in each question. Circle the letter that represents the toy to tell us **which toy you would like to have more**. **There is no right or wrong answer. Please give us your true opinion.**

A

B

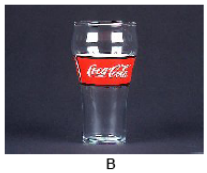
A

B

A

B

A



B

A

B

Please circle the answer that best describes your opinion on a scale of 1-7, on which 1 means "**Strongly Disagree**" and 7 means "**Strongly Agree**."

	Strongly Disagree						Strongly Agree
39. I can influence whether my friends use alcohol.	1	2	3	4	5	6	7
40. I can talk to friends about the danger of alcohol use.	1	2	3	4	5	6	7
41. I can resist the influence beer ads have on me.	1	2	3	4	5	6	7
42. I feel comfortable saying no to people if they offer me alcohol.	1	2	3	4	5	6	7

Please circle the answer that best describes your opinion on a scale of 1-7, on which 1 means "**Never**" and 7 means "**Often**."

	Never						Often
30. Things that happen on TV happen in real life.	1	2	3	4	5	6	7
31. My favorite TV programs include people having fun.	1	2	3	4	5	6	7
32. People on TV are like my family.	1	2	3	4	5	6	7
33. Drinking alcohol helps a person make more friends.	1	2	3	4	5	6	7
34. Drinking alcohol could get a person arrested.	1	2	3	4	5	6	7
35. I have as much fun as the people on TV do.	1	2	3	4	5	6	7
36. Drinking alcohol helps a person feel relaxed	1	2	3	4	5	6	7
37. Drinking alcohol would get a person into trouble with the police.	1	2	3	4	5	6	7
38. Drinking alcohol helps a person feel confident.	1	2	3	4	5	6	7

Please circle the answer that best describes your opinion on a scale of 1-7, on which 1 means "**Never**" and 7 means "**Often**."

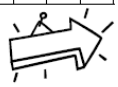
	Never						Often
1. Real people act like people on TV.	1	2	3	4	5	6	7
2. When people on TV act sexy, it makes the shows more interesting to me.	1	2	3	4	5	6	7
3. I do things that people on TV do.	1	2	3	4	5	6	7
4. It would be fun to look like people on TV who drink alcohol.	1	2	3	4	5	6	7
5. Drinking alcohol makes a person happy.	1	2	3	4	5	6	7
6. Drinking alcohol could get a person in trouble with his or her parents.	1	2	3	4	5	6	7
7. I notice ways that TV advertisers use to get me to buy something.	1	2	3	4	5	6	7
8. Alcohol ads tell the truth.	1	2	3	4	5	6	7
9. I seek out additional information to confirm things I learn from TV.	1	2	3	4	5	6	7
10. I think about why someone created a message I see on TV.	1	2	3	4	5	6	7

Please circle the answer that best describes your opinion on a scale of 1-7, on which 1 means "**Never**" and 7 means "**Often**."

	Never						Often
11. Real people look like people on TV.	1	2	3	4	5	6	7
12. I like TV programs that show people having fun.	1	2	3	4	5	6	7
13. I like things that people on TV like.	1	2	3	4	5	6	7
14. I want to live my life like people on TV.	1	2	3	4	5	6	7
15. Drinking alcohol helps a person have more fun.	1	2	3	4	5	6	7

Please circle the answer that best describes your opinion on a scale of 1-7, on which 1 means "**Never**" and 7 means "**Often**."

	Never						Often
16. Drinking alcohol could make a person feel sick to stomach.	1	2	3	4	5	6	7
17. Advertisers care about what is good for you.	1	2	3	4	5	6	7
18. You can believe what people in commercials say or do.	1	2	3	4	5	6	7
19. I think about things I see on TV before I accept them as believable.	1	2	3	4	5	6	7
20. I think about how someone created a message I see on TV.	1	2	3	4	5	6	7
21. Real people do things that people on TV do.	1	2	3	4	5	6	7
22. TV programs that show people acting popular get my attention.	1	2	3	4	5	6	7
23. I am like the people on TV.	1	2	3	4	5	6	7
24. I want to have as much fun as the people on TV do.	1	2	3	4	5	6	7
25. Drinking alcohol makes a person more grown-up.	1	2	3	4	5	6	7
26. Drinking alcohol can harm a person's health.	1	2	3	4	5	6	7
27. The products advertised on TV are the best products to buy.	1	2	3	4	5	6	7
28. I think twice about what TV says.	1	2	3	4	5	6	7
29. I think about what TV producers want me to think.	1	2	3	4	5	6	7



APPENDIX J

TeenSmart TV Pro-Health Entertainment Instrument-One Tree Hill Version

TeenSmart TV

Let's Talk About TV

Part III

WASHINGTON STATE UNIVERSITY

Student Assent Form

TeenSmart TV Project

Researcher: Yvonnes Chen, Doctoral Candidate, Edward R. Murrow School of Communication

I am conducting a research study to evaluate the results of the show you just watched to help us improve the lessons. You may choose whether or not to participate in this study. Your participation in this pencil-and-paper survey will take about 10-15 minutes.

If you decide not to participate, please sit quietly while your classmates fill out this booklet. You will answer questions asking your attitudes and beliefs about the media and related alcohol use. Even though your parents are aware of this project, it is still up to you whether you want to answer any questions. If you start to participate but then change your mind, you may stop answering questions at any time without penalty. Some of the questions ask your attitudes and beliefs about alcohol, and you do not have to answer any questions that make you uncomfortable. If you choose to participate, your answers will not be shared with anyone else other than me.

No one, including your parents or teachers, will ever know your answers. I will never identify your name with any of your answers. I will keep the sheet with your name and questionnaire number locked away and separate from the questionnaire. No one will be able to match your name with your number, and your name will never be matched with your answers on the questionnaire. If you feel uncomfortable after the media education program, you can seek counseling services offered through Washington State University at 509-335-4511.

This study has been reviewed and approved by the WSU Institutional Review Board for human subject participation. If you have questions about the study please contact Ms. Yvonnes Chen at 509-432-4901 or ycciu@wsu.edu. If you have questions about your rights as a participant please contact the WSU IRB at 509-335-3668 or irb@wsu.edu .

If you want to participate in the study, please write your name neatly on the next page, on the line at the bottom of the letter, because we need your permission to let you participate.

Thanks for your help!

Sincerely,

Yvonnes Chen
Doctoral Candidate
Edward R. Murrow School of Communication
Washington State University

509-432-4901
ycciu@wsu.edu

Please circle the answer that best describes your opinion on a scale of 1-7, on which 1 means "**Strongly Disagree**" and 7 means "**Strongly Agree**."

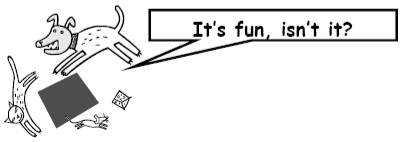
	Strongly Disagree						**Strongly Agree**
68. I can influence whether my friends use alcohol.	1	2	3	4	5	6	7
69. I can talk to friends about the danger of alcohol use.	1	2	3	4	5	6	7
70. I can resist the influence beer ads have on me.	1	2	3	4	5	6	7
71. I feel comfortable saying no to people if they offer me alcohol.	1	2	3	4	5	6	7

We are going to ask some questions about your behavioral intention. Please circle the answer that best describes your opinion on a scale of 1-7, on which 1 means "**I definitely won't**" and 7 means "**I definitely will**."

	I definitely Won't						**I definitely Will**
During the next year							
72. do you think you will drink beer (more than just a few sips)?	1	2	3	4	5	6	7
73. get drunk or drink a lot of alcohol at one time?	1	2	3	4	5	6	7
Before you are 21 years old,							
74. do you think you will drink beer (more than just a few sips)?	1	2	3	4	5	6	7
75. get drunk or drink a lot of alcohol at one time?	1	2	3	4	5	6	7

Please circle the answer that best describes your opinion on a scale of 1-7, on which 1 means "**Never**" and 7 means "**Often**."

	Never						Often
58. The characters in the show I just watched seemed to have fun.	1	2	3	4	5	6	7
59. Things that happened in this show often happen to people like me.	1	2	3	4	5	6	7
60. It would be fun to look like the main characters in this show.	1	2	3	4	5	6	7
61. Drinking alcohol helps a person feel confident.	1	2	3	4	5	6	7
62. Drinking alcohol could get a person arrested.	1	2	3	4	5	6	7
63. It's important to think twice about what TV says.	1	2	3	4	5	6	7
64. I think about what TV producers want me to think.	1	2	3	4	5	6	7
65. Young people in this show were like my friends.	1	2	3	4	5	6	7
66. People in this show do things I want to do.	1	2	3	4	5	6	7
67. Drinking alcohol could get a person into trouble with the police.	1	2	3	4	5	6	7



Student's Statement:

I have read the information explaining the TeenSmart TV Project, and I DO ____ / DO NOT ____ want to participate.

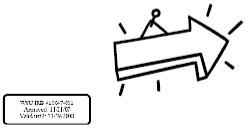
Student's name:_____
(please print)

Student's Signature:_____

Date: _____

(Please turn to page 4 for instructions.)

- If you agree to participate, please turn to page 4 for instructions.
- If you do not agree to participate, please sit quietly while your classmates fill out this booklet. Thank you.



Instructions

If you already know how to fill out this booklet, turn to page 5 to start answering questions.

The purpose of this survey is to measure your opinions about the media and alcohol. It will take about 10-15 minutes to complete. Please circle the answer best reflects your opinion. There is no right or wrong answer for most of the questions and we really need to know what you think, so please give us your true opinion. Thanks for your help!

Notice that when you circle 1, it means "Never" and when you circle 7, it means "Often."

	Never						Often
1. I drink orange juice.	**1**	2	3	4	5	6	**7**

If you drink orange juice on a daily base, you can circle 6 or 7.
If you drink orange juice three or four times per week, you can circle3, 4 or 5.
If you rarely drink orange juice, circle 1 or 2.

Another example

Notice that when you circle 1, it means that you "Strongly Disagree" with the statement. When you circle 7, it means you "Strongly Agree" with the statement.

	Strongly Disagree						Strongly Agree
1. I like holidays	**1**	2	3	4	5	6	**7**

If you really like holidays, you would select 6 or 7.
If you somewhat like holidays, you select 3, 4, or 5
If you don't like holidays, then you select 1 or 2.

Are you ready?
Now turn to page 5 to start answering questions.

Please circle the answer that best describes your opinion on a scale of 1-7, on which 1 means "**Never**" and 7 means "**Often**."

	Never						**Often**
44. Many people look like people in this show.	1	2	3	4	5	6	7
45. I like the people in this show.	1	2	3	4	5	6	7
46. Young people in the show I just watched were like people in my family.	1	2	3	4	5	6	7
47. I wish I could do things that characters on TV do.	1	2	3	4	5	6	7
48. Drinking alcohol makes a person more grown-up.	1	2	3	4	5	6	7
49. Drinking alcohol helps a person make more friends.	1	2	3	4	5	6	7
50. Drinking alcohol can harm a person's health.	1	2	3	4	5	6	7
51. I think about things I see on TV before I accept them as believable.	1	2	3	4	5	6	7
52. I think about how someone created a message I see on TV.	1	2	3	4	5	6	7
53. Many people do things that people in this show did.	1	2	3	4	5	6	7
54. Characters in this show were attractive.	1	2	3	4	5	6	7
55. I like the drinking behavior of the characters in this show.	1	2	3	4	5	6	7
56. I want to be like the main character in this show.	1	2	3	4	5	6	7
57. Drinking alcohol helps a person feel relaxed.	1	2	3	4	5	6	7

Please circle the answer that best describes your opinion on a scale of 1-7, on which 1 means "**Never**" and 7 means "**Often**."

	Never						**Often**
32. This program showed how people act when drinking alcohol.	1	2	3	4	5	6	7
33. Things that happened on this show happen in real life.	1	2	3	4	5	6	7
34. Characters in this show did fun things.	1	2	3	4	5	6	7
35. People in the show I just watched were similar to people around me.	1	2	3	4	5	6	7
36. I wish I could be like the people I see on TV.	1	2	3	4	5	6	7
37. Drinking alcohol makes a person happy.	1	2	3	4	5	6	7
38. Drinking alcohol helps make a person have more fun.	1	2	3	4	5	6	7
39. Drinking alcohol could get a person in trouble with his/her parents.	1	2	3	4	5	6	7
40. Drinking alcohol could make a person feel sick to stomach.	1	2	3	4	5	6	7
41. I seek out additional information to confirm things I learn from TV.	1	2	3	4	5	6	7
42. I think about why someone created a message I see on TV.	1	2	3	4	5	6	7
43. Many people act like people in this show acted.	1	2	3	4	5	6	7

We are going to ask you some questions about the show you just watched. Please circle your answers.

1. Are you a regular watcher of the show "One Tree Hill?"
Yes **No**

2. Have you seen this particular episode before?
Yes **No**

3. This show can be useful to teach people my age about the danger of alcohol use.
Yes **No**

4. Characters in the show experienced negative consequences of alcohol use.
Yes **No**

5. Lucas and Nathan, the two male characters, got into jail because _____
a. they had a fight.
b. Nathan was drunk driving.
c. they were speeding.

6. What was the consequence of Erica's alcohol drinking?
a. She didn't experience any consequence.
b. She went to jail for a day.
c. She felt sick to her stomach and threw up.

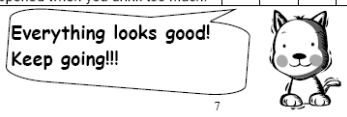
7. Lucas called his mother when he was in jail but her mother decided to ____
a. bail Lucas and Nathan out.
b. keep Lucas and Nathan in jail so they will learn their lesson not to drink.
c. lecture Lucas on the phone.

Please circle the answer that best describes your opinion on a scale of 1-7, on which 1 means "**Strongly Disagree**" and 7 means "**Strongly Agree**."

	Strongly Disagree						**Strongly Agree**
8. I enjoyed the show I just watched.	1	2	3	4	5	6	7
9. I could feel the emotions the characters felt during this show.	1	2	3	4	5	6	7
10. The story was convincing.	1	2	3	4	5	6	7
11. The show I just watched tried to teach me to do the right things.	1	2	3	4	5	6	7
12. The show I just watched was entertaining.	1	2	3	4	5	6	7
13. The show I just watched was boring.	1	2	3	4	5	6	7
14. When a main character suffered in some way during the program, I felt sad.	1	2	3	4	5	6	7
15. I understood why the events happened the way they did.	1	2	3	4	5	6	7
16. This show was honest about what happened when young people drink too much.	1	2	3	4	5	6	7
17. I learned something about alcohol that I didn't know before.	1	2	3	4	5	6	7
18. This show was educational.	1	2	3	4	5	6	7
19. The characters showed me what would happen if I got drunk.	1	2	3	4	5	6	7

Please circle the answer that best describes your opinion on a scale of 1-7, on which 1 means "**Strongly Disagree**" and 7 means "**Strongly Agree**."

	Strongly Disagree						**Strongly Agree**
20. This show taught me something new.	1	2	3	4	5	6	7
21. I care about the characters in this show.	1	2	3	4	5	6	7
22. I was still thinking about what happened in the show after it was over.	1	2	3	4	5	6	7
23. At some points, I had a hard time making sense of what was going on in the program.	1	2	3	4	5	6	7
24. This show accurately portrayed the consequences of drinking alcohol.	1	2	3	4	5	6	7
25. I paid full attention to the show.	1	2	3	4	5	6	7
26. You can believe everything you see in this show.	1	2	3	4	5	6	7
27. I can feel that what happened to the characters can happen to me too.	1	2	3	4	5	6	7
28. I was very involved in the show I just watched.	1	2	3	4	5	6	7
29. I beleive what the show told me about alcohol use.	1	2	3	4	5	6	7
30. TV is a trustworthy source for the consequences of alcohol overdose.	1	2	3	4	5	6	7
31. The show I just watched showed what truly happened when you drink too much.	1	2	3	4	5	6	7



APPENDIX K

TeenSmart TV Pro-Health Entertainment Instrument-Saved by the Bell-New Class

TeenSmart TV

Let's Talk About TV

Part III

WASHINGTON STATE UNIVERSITY

Student Assent Form

TeenSmart TV Project

Researcher: Yvonnes Chen, Doctoral Candidate, Edward R. Murrow School of Communication

I am conducting a research study to evaluate the results of the show you just watched to help us improve the lessons. You may choose whether or not to participate in this study. Your participation in this pencil-and-paper survey will take about 10-15 minutes.

If you decide not to participate, please sit quietly while your classmates fill out this booklet. You will answer questions asking your attitudes and beliefs about the media and related alcohol use. Even though your parents are aware of this project, it is still up to you whether you want to answer any questions. If you start to participate but then change your mind, you may stop answering questions at any time without penalty. Some of the questions ask your attitudes and beliefs about alcohol, and you do not have to answer any questions that make you uncomfortable. If you choose to participate, your answers will not be shared with anyone else other than me.

No one, including your parents or teachers, will ever know your answers. I will never identify your name with any of your answers. I will keep the sheet with your name and questionnaire number locked away and separate from the questionnaire. No one will be able to match your name with your number, and your name will never be matched with your answers on the questionnaire. If you feel uncomfortable after the media education program, you can seek counseling services offered through Washington State University at 509-335-4511.

This study has been reviewed and approved by the WSU Institutional Review Board for human subject participation. If you have questions about the study please contact Ms. Yvonnes Chen at 509-432-4901 or ycclu@wsu.edu. If you have questions about your rights as a participant please contact the WSU IRB at 509-335-3668 or irb@wsu.edu.

If you want to participate in the study, please write your name neatly on the next page, on the line at the bottom of the letter, because we need your permission to let you participate.

Thanks for your help!

Sincerely,

Yvonnes Chen
Doctoral Candidate
Edward R. Murrow School of Communication
Washington State University

509-432-4901
ycclu@wsu.edu

Please circle the answer that best describes your opinion on a scale of 1-7, on which 1 means "**Strongly Disagree**" and 7 means "**Strongly Agree**."

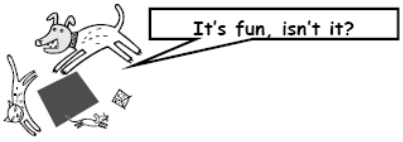
	Strongly Disagree						Strongly Agree
69. I can influence whether my friends use alcohol.	1	2	3	4	5	6	7
70. I can talk to friends about the danger of alcohol use.	1	2	3	4	5	6	7
71. I can resist the influence beer ads have on me.	1	2	3	4	5	6	7
72. I feel comfortable saying no to people if they offer me alcohol.	1	2	3	4	5	6	7

We are going to ask some questions about your behavioral intention. Please circle the answer that best describes your opinion on a scale of 1-7, on which 1 means "**I definitely won't**" and 7 means "**I definitely will**."

	I definitely Won't						I definitely Will
During the next year							
73. do you think you will drink beer (more than just a few sips)?	1	2	3	4	5	6	7
74. get drunk or drink a lot of alcohol at one time?	1	2	3	4	5	6	7
Before you are 21 years old,							
75. do you think you will drink beer (more than just a few sips)?	1	2	3	4	5	6	7
76. get drunk or drink a lot of alcohol at one time?	1	2	3	4	5	6	7

Please circle the answer that best describes your opinion on a scale of 1-7, on which 1 means "**Never**" and 7 means "**Often**."

	Never						Often
59. The characters in the show I just watched seemed to have fun.	1	2	3	4	5	6	7
60. Things that happened in this show often happen to people like me.	1	2	3	4	5	6	7
61. It would be fun to look like the main characters in this show.	1	2	3	4	5	6	7
62. Drinking alcohol helps a person feel confident.	1	2	3	4	5	6	7
63. Drinking alcohol could get a person arrested.	1	2	3	4	5	6	7
64. It's important to think twice about what TV says.	1	2	3	4	5	6	7
65. I think about what TV producers want me to think.	1	2	3	4	5	6	7
66. Young people in this show were like my friends.	1	2	3	4	5	6	7
67. People in this show do things I want to do.	1	2	3	4	5	6	7
68. Drinking alcohol could get a person into trouble with the police.	1	2	3	4	5	6	7



Student's Statement:

I have read the information explaining the TeenSmart TV Project, and I DO ____ / DO NOT ____ want to participate.

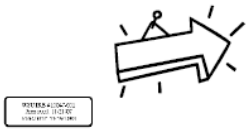
Student's name:_____
(please print)

Student's Signature:_____

Date: _____

(Please turn to page 4 for instructions.)

- If you agree to participate, please turn to page 4 for instructions.
- If you do not agree to participate, please sit quietly while your classmates fill out this booklet. Thank you.



Instructions

If you already know how to fill out this booklet, turn to page 5 to start answering questions.

The purpose of this survey is to measure your opinions about the media and alcohol. It will take about 10-15 minutes to complete. Please circle the answer best reflects your opinion. There is no right or wrong answer for most of the questions and we really need to know what you think, so please give us your true opinion. Thanks for your help!

Notice that when you circle 1, it means "Never" and when you circle 7, it means "Often."

	Never						Often
1. I drink orange juice.	**1**	2	3	4	5	6	**7**

If you drink orange juice on a daily base, you can circle 6 or 7.
If you drink orange juice three or four times per week, you can circle3, 4 or 5.
If you rarely drink orange juice, circle 1 or 2.

Another example

Notice that when you circle 1, it means that you "Strongly Disagree" with the statement. When you circle 7, it means you "Strongly Agree" with the statement.

	Strongly Disagree						Strongly Agree
1. I like holidays	**1**	2	3	4	5	6	**7**

If you really like holidays, you would select 6 or 7.
If you somewhat like holidays, you select 3, 4, or 5
If you don't like holidays, then you select 1 or 2.

Are you ready?
Now turn to page 5 to start answering questions.

Please circle the answer that best describes your opinion on a scale of 1-7, on which 1 means "**Never**" and 7 means "**Often**."

	Never						Often
45. Many people look like people in this show.	1	2	3	4	5	6	7
46. I like the people in this show.	1	2	3	4	5	6	7
47. Young people in the show I just watched were like people in my family.	1	2	3	4	5	6	7
48. I wish I could do things that characters on TV do.	1	2	3	4	5	6	7
49. Drinking alcohol makes a person more grown-up.	1	2	3	4	5	6	7
50. Drinking alcohol helps a person make more friends.	1	2	3	4	5	6	7
51. Drinking alcohol can harm a person's health.	1	2	3	4	5	6	7
52. I think about things I see on TV before I accept them as believable.	1	2	3	4	5	6	7
53. I think about how someone created a message I see on TV.	1	2	3	4	5	6	7
54. Many people do things that people in this show did.	1	2	3	4	5	6	7
55. Characters in this show were attractive.	1	2	3	4	5	6	7
56. I like the drinking behavior of the characters in this show.	1	2	3	4	5	6	7
57. I want to be like the main character in this show.	1	2	3	4	5	6	7
58. Drinking alcohol helps a person feel relaxed.	1	2	3	4	5	6	7

Please circle the answer that best describes your opinion on a scale of 1-7, on which 1 means "**Never**" and 7 means "**Often**."

	Never						**Often**
33. This program showed how people act when drinking alcohol.	1	2	3	4	5	6	7
34. Things that happened on this show happen in real life.	1	2	3	4	5	6	7
35. Characters in this show did fun things.	1	2	3	4	5	6	7
36. People in the show I just watched were similar to people around me.	1	2	3	4	5	6	7
37. I wish I could be like the people I see on TV.	1	2	3	4	5	6	7
38. Drinking alcohol makes a person happy.	1	2	3	4	5	6	7
39. Drinking alcohol helps make a person have more fun.	1	2	3	4	5	6	7
40. Drinking alcohol could get a person in trouble with his/her parents.	1	2	3	4	5	6	7
41. Drinking alcohol could make a person feel sick to stomach.	1	2	3	4	5	6	7
42. I seek out additional information to confirm things I learn from TV.	1	2	3	4	5	6	7
43. I think about why someone created a message I see on TV.	1	2	3	4	5	6	7
44. Many people act like people in this show acted.	1	2	3	4	5	6	7

We are going to ask you some questions about the show you just watched. Please circle your answers.

1. Are you a regular watcher of the show "Saved by the Bell-New Class?"
Yes **No**

2. Have you seen this particular episode before?
Yes **No**

3. This show can be useful to teach people my age about the danger of alcohol use.
Yes **No**

4. Characters in the show experienced negative consequences of alcohol use.
Yes **No**

5. "Beerfest" is a tradition that _____
a. high school freshmen do at the beginning of the semester.
b. high school students celebrate their end of semester final.
c. students just celebrate every weekend.

6. According to Mr. Belding, the principal of the high school, he said that "drinking and driving" _____
a. is the number 1 killer of teens.
b. is the number 2 killer of teens.
c. does not cause alcohol poisoning.

7. Who forced Katie to drink at the party?
a. Her boyfriend.
b. All her classmates at the party.

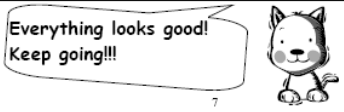
8. At the end of the "Beerfest," _____ caught students drank illegally at the beach.
a. concerned parents/guardians
b. police officers
c. Mr. Belding, the principal

Please circle the answer that best describes your opinion on a scale of 1-7, on which 1 means "**Strongly Disagree**" and 7 means "**Strongly Agree**."

	Strongly Disagree						**Strongly Agree**
9. I enjoyed the show I just watched.	1	2	3	4	5	6	7
10. I could feel the emotions the characters felt during this show.	1	2	3	4	5	6	7
11. The story was convincing.	1	2	3	4	5	6	7
12. The show I just watched tried to teach me to do the right things.	1	2	3	4	5	6	7
13. The show I just watched was entertaining.	1	2	3	4	5	6	7
14. The show I just watched was boring.	1	2	3	4	5	6	7
15. When a main character suffered in some way during the program, I felt sad.	1	2	3	4	5	6	7
16. I understood why the events happened the way they did.	1	2	3	4	5	6	7
17. This show was honest about what happened when young people drink too much.	1	2	3	4	5	6	7
18. I learned something about alcohol that I didn't know before.	1	2	3	4	5	6	7
19. This show was educational.	1	2	3	4	5	6	7
20. The characters showed me what would happen if I got drunk.	1	2	3	4	5	6	7

Please circle the answer that best describes your opinion on a scale of 1-7, on which 1 means "**Strongly Disagree**" and 7 means "**Strongly Agree**."

	Strongly Disagree						**Strongly Agree**
21. This show taught me something new.	1	2	3	4	5	6	7
22. I care about the characters in this show.	1	2	3	4	5	6	7
23. I was still thinking about what happened in the show after it was over.	1	2	3	4	5	6	7
24. At some points, I had a hard time making sense of what was going on in the program.	1	2	3	4	5	6	7
25. This show accurately portrayed the consequences of drinking alcohol.	1	2	3	4	5	6	7
26. I paid full attention to the show.	1	2	3	4	5	6	7
27. You can believe everything you see in this show.	1	2	3	4	5	6	7
28. I can feel that what happened to the characters can happen to me too.	1	2	3	4	5	6	7
29. I was very involved in the show I just watched.	1	2	3	4	5	6	7
30. I believe what the show told me about alcohol use.	1	2	3	4	5	6	7
31. TV is a trustworthy source for the consequences of alcohol overdose.	1	2	3	4	5	6	7
32. The show I just watched showed what truly happened when you drink too much.	1	2	3	4	5	6	7



APPENDIX L

TeenSmart TV Pro-Health Entertainment Instrument-Dawson's Creek

12

TeenSmart TV

Let's Talk About TV

Part III

WASHINGTON STATE UNIVERSITY

Student Assent Form

TeenSmart TV Project

Researcher: Yvonnes Chen, Doctoral Candidate, Edward R. Murrow School of Communication

I am conducting a research study to evaluate the results of the show you just watched to help us improve the lessons. You may choose whether or not to participate in this study. Your participation in this pencil-and-paper survey will take about 10-15 minutes.

If you decide not to participate, please sit quietly while your classmates fill out this booklet. You will answer questions asking your attitudes and beliefs about the media and related alcohol use. Even though your parents are aware of this project, it is still up to you whether you want to answer any questions. If you start to participate but then change your mind, you may stop answering questions at any time without penalty. Some of the questions ask your attitudes and beliefs about alcohol, and you do not have to answer any questions that make you uncomfortable. If you choose to participate, your answers will not be shared with anyone else other than me.

No one, including your parents or teachers, will ever know your answers. I will never identify your name with any of your answers. I will keep the sheet with your name and questionnaire number locked away and separate from the questionnaire. No one will be able to match your name with your number, and your name will never be matched with your answers on the questionnaire. If you feel uncomfortable after the media education program, you can seek counseling services offered through Washington State University at 509-335-4511.

This study has been reviewed and approved by the WSU Institutional Review Board for human subject participation. If you have questions about the study please contact Ms. Yvonnes Chen at 509-432-4001 or ycclu@wsu.edu. If you have questions about your rights as a participant please contact the WSU IRB at 509-335-3668 or irb@wsu.edu.

If you want to participate in the study, please write your name neatly on the next page, on the line at the bottom of the letter, because we need your permission to let you participate.

Thanks for your help!

Sincerely,

Yvonnes Chen
Doctoral Candidate
Edward R. Murrow School of Communication
Washington State University

509-432-4001
ycclu@wsu.edu

2

Please circle the answer that best describes your opinion on a scale of 1-7, on which 1 means "**Strongly Disagree**" and 7 means "**Strongly Agree**."

	Strongly Disagree						**Strongly Agree**
68. I can influence whether my friends use alcohol.	1	2	3	4	5	6	7
69. I can talk to friends about the danger of alcohol use.	1	2	3	4	5	6	7
70. I can resist the influence beer ads have on me.	1	2	3	4	5	6	7
71. I feel comfortable saying no to people if they offer me alcohol.	1	2	3	4	5	6	7

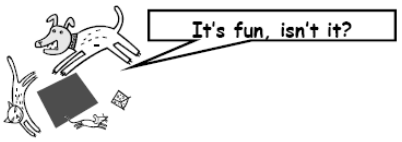
We are going to ask some questions about your behavioral intention. Please circle the answer that best describes your opinion on a scale of 1-7, on which 1 means "**I definitely won't**" and 7 means "**I definitely will**."

	I definitely Won't						**I definitely Will**
During the next year							
72. do you think you will drink beer (more than just a few sips)?	1	2	3	4	5	6	7
73. get drunk or drink a lot of alcohol at one time?	1	2	3	4	5	6	7
Before you are 21 years old,							
74. do you think you will drink beer (more than just a few sips)?	1	2	3	4	5	6	7
75. get drunk or drink a lot of alcohol at one time?	1	2	3	4	5	6	7

11

Please circle the answer that best describes your opinion on a scale of 1-7, on which 1 means "**Never**" and 7 means "**Often.**"

	Never						Often
58. The characters in the show I just watched seemed to have fun.	1	2	3	4	5	6	7
59. Things that happened in this show often happen to people like me.	1	2	3	4	5	6	7
60. It would be fun to look like the main characters in this show.	1	2	3	4	5	6	7
61. Drinking alcohol helps a person feel confident.	1	2	3	4	5	6	7
62. Drinking alcohol could get a person arrested.	1	2	3	4	5	6	7
63. It's important to think twice about what TV says.	1	2	3	4	5	6	7
64. I think about what TV producers want me to think.	1	2	3	4	5	6	7
65. Young people in this show were like my friends.	1	2	3	4	5	6	7
66. People in this show do things I want to do.	1	2	3	4	5	6	7
67. Drinking alcohol could get a person into trouble with the police.	1	2	3	4	5	6	7



Student's Statement:

I have read the information explaining the TeenSmart TV Project, and I DO ____ / DO NOT ____ want to participate.

Student's name:_____
(please print)

Student's Signature:_____

Date: _____

(Please turn to page 4 for instructions.)

- If you agree to participate, please turn to page 4 for instructions.
- If you do not agree to participate, please sit quietly while your classmates fill out this booklet. Thank you.

Instructions

If you already know how to fill out this booklet, turn to page 5 to start answering questions.

The purpose of this survey is to measure your opinions about the media and alcohol. It will take about 10-15 minutes to complete. Please circle the answer best reflects your opinion. There is no right or wrong answer for most of the questions and we really need to know what you think, so please give us your true opinion. Thanks for your help!

Notice that when you circle 1, it means "Never" and when you circle 7, it means "Often."

	Never						Often
1. I drink orange juice.	**1**	2	3	4	5	6	**7**

If you drink orange juice on a daily base, you can circle 6 or 7.
If you drink orange juice three or four times per week, you can circle3, 4 or 5.
If you rarely drink orange juice, circle 1 or 2.

Another example

Notice that when you circle 1, it means that you "Strongly Disagree" with the statement. When you circle 7, it means you "Strongly Agree" with the statement.

	Strongly Disagree						Strongly Agree
1. I like holidays	**1**	2	3	4	5	6	**7**

If you really like holidays, you would select 6 or 7.
If you somewhat like holidays, you select 3, 4, or 5
If you don't like holidays, then you select 1 or 2.

Are you ready?
Now turn to page 5 to start answering questions.

Please circle the answer that best describes your opinion on a scale of 1-7, on which 1 means "**Never**" and 7 means "**Often.**"

	Never						**Often**
44. Many people look like people in this show.	1	2	3	4	5	6	7
45. I like the people in this show.	1	2	3	4	5	6	7
46. Young people in the show I just watched were like people in my family.	1	2	3	4	5	6	7
47. I wish I could do things that characters on TV do.	1	2	3	4	5	6	7
48. Drinking alcohol makes a person more grown-up.	1	2	3	4	5	6	7
49. Drinking alcohol helps a person make more friends.	1	2	3	4	5	6	7
50. Drinking alcohol can harm a person's health.	1	2	3	4	5	6	7
51. I think about things I see on TV before I accept them as believable.	1	2	3	4	5	6	7
52. I think about how someone created a message I see on TV.	1	2	3	4	5	6	7
53. Many people do things that people in this show did.	1	2	3	4	5	6	7
54. Characters in this show were attractive.	1	2	3	4	5	6	7
55. I like the drinking behavior of the characters in this show.	1	2	3	4	5	6	7
56. I want to be like the main character in this show.	1	2	3	4	5	6	7
57. Drinking alcohol helps a person feel relaxed.	1	2	3	4	5	6	7

Please circle the answer that best describes your opinion on a scale of 1-7, on which 1 means "**Never**" and 7 means "**Often.**"

	Never						**Often**
32. This program showed how people act when drinking alcohol.	1	2	3	4	5	6	7
33. Things that happened on this show happen in real life.	1	2	3	4	5	6	7
34. Characters in this show did fun things.	1	2	3	4	5	6	7
35. People in the show I just watched were similar to people around me.	1	2	3	4	5	6	7
36. I wish I could be like the people I see on TV.	1	2	3	4	5	6	7
37. Drinking alcohol makes a person happy.	1	2	3	4	5	6	7
38. Drinking alcohol helps make a person have more fun.	1	2	3	4	5	6	7
39. Drinking alcohol could get a person in trouble with his/her parents.	1	2	3	4	5	6	7
40. Drinking alcohol could make a person feel sick to stomach.	1	2	3	4	5	6	7
41. I seek out additional information to confirm things I learn from TV.	1	2	3	4	5	6	7
42. I think about why someone created a message I see on TV.	1	2	3	4	5	6	7
43. Many people act like people in this show acted.	1	2	3	4	5	6	7

We are going to ask you some questions about the show you just watched. Please circle your answers.

1. Are you a regular watcher of the show "Dawson's Creek?"
Yes **No**

2. Have you seen this particular episode before?
Yes **No**

3. This show can be useful to teach people my age about the danger of alcohol use.
Yes **No**

4. Characters in the show experienced negative consequences of alcohol use.
Yes **No**

5. Only Dawson, the main character, learned the consequences of drinking alcohol. Yes No

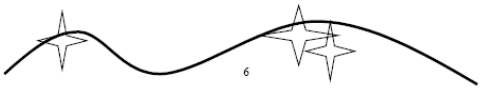
6. Dawson and Andie, those two main characters who drank at the jazz bar, said that they will never drink because _____

a. they both felt sick to their stomach.
b. they both went to jail.
c. they both got into a fight in the bar.

7. The main characters left the jazz bar because _____
a. the bartender asked for their I.D.
b. the server asked them to leave right away.
c. they wanted to.

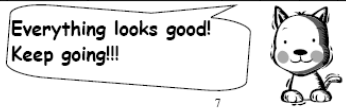
Please circle the answer that best describes your opinion on a scale of 1-7, on which 1 means "**Strongly Disagree**" and 7 means "**Strongly Agree**."

	Strongly Disagree						**Strongly Agree**
8. I enjoyed the show I just watched.	1	2	3	4	5	6	7
9. I could feel the emotions the characters felt during this show.	1	2	3	4	5	6	7
10. The story was convincing.	1	2	3	4	5	6	7
11. The show I just watched tried to teach me to do the right things.	1	2	3	4	5	6	7
12. The show I just watched was entertaining.	1	2	3	4	5	6	7
13. The show I just watched was boring.	1	2	3	4	5	6	7
14. When a main character suffered in some way during the program, I felt sad.	1	2	3	4	5	6	7
15. I understood why the events happened the way they did.	1	2	3	4	5	6	7
16. This show was honest about what happened when young people drink too much.	1	2	3	4	5	6	7
17. I learned something about alcohol that I didn't know before.	1	2	3	4	5	6	7
18. This show was educational.	1	2	3	4	5	6	7
19. The characters showed me what would happen if I got drunk.	1	2	3	4	5	6	7



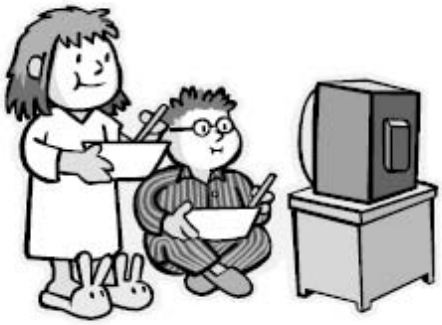
Please circle the answer that best describes your opinion on a scale of 1-7, on which 1 means "**Strongly Disagree**" and 7 means "**Strongly Agree**."

	Strongly Disagree						**Strongly Agree**
20. This show taught me something new.	1	2	3	4	5	6	7
21. I care about the characters in this show.	1	2	3	4	5	6	7
22. I was still thinking about what happened in the show after it was over.	1	2	3	4	5	6	7
23. At some points, I had a hard time making sense of what was going on in the program.	1	2	3	4	5	6	7
24. This show accurately portrayed the consequences of drinking alcohol.	1	2	3	4	5	6	7
25. I paid full attention to the show.	1	2	3	4	5	6	7
26. You can believe everything you see in this show.	1	2	3	4	5	6	7
27. I can feel that what happened to the characters can happen to me too.	1	2	3	4	5	6	7
28. I was very involved in the show I just watched.	1	2	3	4	5	6	7
29. I beleive what the show told me about alcohol use.	1	2	3	4	5	6	7
30. TV is a trustworthy source for the consequences of alcohol overdose.	1	2	3	4	5	6	7
31. The show I just watched showed what truly happened when you drink too much.	1	2	3	4	5	6	7



APPENDIX M

TV Diet



What's Your TV Diet?

1. How much TV do you watch on a typical weekday? (Circle your answer)

0 hour, *1 hour*, *2 hours*, *3 hours*, *4 hours*, *5 hours*, or *6+ hours*

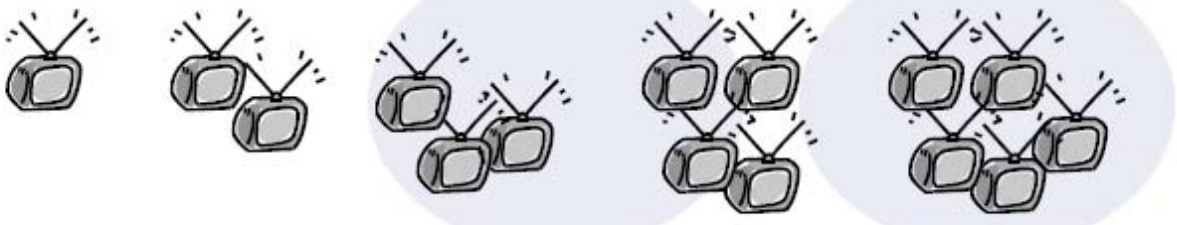
2. How much TV do you watch during the weekends?

0 hour, *1 hour*, *2 hours*, *3 hours*, *4 hours*, *5 hours*, or *6+ hours*

3. Do you have a TV in your bedroom?

Yes No

4. How many TV set(s) do you have at home?



APPENDIX N

Ad Hooks

Ad Hooks

Six Techniques of Persuasion: Things Advertisers Use to Get You Hooked!

1. **Humor**: Funny, smiling, laughing

2. **Music**: Goes with the feel of the ads

3. **Macho**: Strong, tough, powerful

4. **Friends**: Groups of people having fun and doing things together

5. **Animals/Cartoon**: Often cute or humorous

6. **Celebrity**: Someone famous (athletes, movie stars, musicians)

APPENDIX O

Myths Alcohol Advertisers Want You to Believe

Myths Alcohol Advertisers Want You to Believe

Myth #1: Drinking is a risk-free activity.

Fact #1: <u>One</u> teen is killed every 60 minutes because of teen drunk driving.
Other consequences: get sick to your stomach, alcohol poisoning, academic failure...

Myth #2: Sports and alcohol go together.

Fact #2: Drinking alcohol affects judgments and physical performance, which would affect athletes' overall performances.

Myth #3: Drinking alcohol makes you look cool/popular.

Fact #3: Advertisers use ad hooks to get your attention.

Myth #4: Alcohol advertisers tell us the danger of alcohol.

Fact #4: They spend 8 billion each year to get young people like you to drink.