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# Moving towards a very long engagement: the effects of interactivity on prolonging engagement with online movie advertisements

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MOVING TOWARDS A VERY LONG ENGAGEMENT:  
THE EFFECTS OF INTERACTIVITY ON PROLONGING ENGAGEMENT  
WITH ONLINE MOVIE ADVERTISEMENTS

A Thesis

Submitted to the Graduate Faculty of the  
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## ABSTRACT

An experiment with 421 participants aged 18-45 was conducted to measure the effects of interactivity in an online movie advertising setting, and the effects of interactivity on consumer engagement and other brand metrics. Results from a post-test survey revealed insight into participants' perceived level of interactivity, and reflected varying levels of attitude towards ad messages, ad recall, mood, and factors in purchasing habits.

Results suggested that while interactivity can sometimes hinder advertising recall rates, it can also increase positive attitudes toward the advertisement, click-through rate, intent to purchase, and mood. Practical implications and suggestions for further research are discussed.



**CHAPTER 1**  
**INTRODUCTION**

Moving into the new millennium, interactive media specialists, Jeff Einstein and Gregory Pollack (2000) have noted a shift in advertising budgets from more traditional, “brand awareness advertising” to digital, “one-to-one” data-driven media. Einstein and Pollack attribute this move to a transfer of power in building the brand from the advertising agency to the individual consumer. Their research has shown that brands are no longer molded and then delivered to the consumer, but that the consumer actually creates the brand experientially over time and through many different media.

While the tactics of advertisers and marketers are evolving, the entire field of communication to consumers also seems to be shifting directions. According to the Advertising Research Foundation (ARF), the role of marketing in the 21<sup>st</sup> century is to create brand demand, not only brand awareness ([www.thearf.com](http://www.thearf.com)). Marketing and advertising should, “engage prospects (customers and potential customers) to build preference, loyalty, and a sense of co-ownership” ([www.thearf.org](http://www.thearf.org)). With advertising now beginning to delve into new media to better target specific consumers and build relationships with those consumers, advertisers and companies are increasingly demanding accountability for the money they spend on advertising (Wang 2006). Additionally, industry analyst, Matthew Creamer provides, new, non-traditional media are making communication “much more two-way, with consumers capable of engaging in dialogues through interactive media and content they themselves create” (Creamer, 2006). As a result, Joe Plummer, chief research officer at the ARF, thinks traditional media metrics, such as readership, click-through rates and ratings are not going to be enough to gauge the effectiveness of new media like cellular phones and blogs. Advertisers must be able to “determine how the targeted prospect connected with, got engaged with the brand idea”, Plummer said (Elliot, 2006).

The ARF has determined a new metric the foundation deems suitable for gauging the relationship building/advertising process—engagement—defining it as “turning on a prospect to a brand idea enhanced by the surrounding context” ([www.thearf.org](http://www.thearf.org)). The ARF also provides that the definition is a working definition so that it leaves room for researchers to aid in defining quantifiable measures of engagement, thus adding to the industry knowledge base.

The purpose of this study is to expand upon the definition of engagement by observing the effects interactivity has on user engagement. While investigating the characteristics and drivers of engagement, the research hopes to determine whether website advertising interactivity, also a relatively new concept to the realm of advertising, drives and/or increases consumer engagement. More specifically, this study seeks to observe the effects of increasing levels of interactivity in online advertisements for films, on consumer engagement with the ad and the product. Using advertising metrics such as, advertising awareness, recall, attitude toward the advertisement, brand interest and intent to purchase, the researcher seeks to determine how interactivity operates as mediator to lead to consumer engagement.

Media analyst, Jared Bernstein, attributes this move to digital media to a response by advertisers to next-generation Web users seeking interactivity. The World Wide Web, still an evolving digital medium, allows for an enormous potential for interaction, i.e. businesses with other businesses, businesses with consumers, and also consumers with other consumers (Wu, 2005). Interactivity through the Internet allows this type of communication to occur, whereas with traditional media it would be too cost-prohibitive. Not only are users seeking a novel and useful web experience, they are also seeking human aspects of interactivity—“conversations, interpersonal networking, personalization and networking” (Bernstein, 2006). America Online reports in recent studies that 64 million Americans utilize some type of AOL instant messaging

application. Yahoo! reports that users spend an average of approximately an hour per day on its instant messaging service (Van Camp, 2004). New media users have grown up in a society that relies upon cellular phones, text messaging, instant messaging, e-mail, blogging, etc. This has resulted in what R.J. Pittman provides as a near impatience when it comes to information gathering; he terms this the “Google effect” (Bernstein, 2006). The search for information must be simple, unbounded, unrestricted and fast, adds Pittman (Bernstein, 2006). Consumers want to be able to consume media whenever and wherever they want, no matter the platform or device (Wang, 2006). Interactivity gives users nearly immediate access and autonomous control; it also allows them to experience the human element, without spatial constraints. “Indeed, as Deighton (1996) put it, interactivity of the Internet has the potential to translate good marketing into good conversation by ‘putting a more human face on marketplace exchanges without losing the scale of economies of mass marketing’ (p. 151)” (Wu, 2005).

In response to the evolving communication wants and needs of consumers, technology marketing expert Scott Van Camp (2004) has observed a rise in the number of companies switching from traditional forms of communicating to new media vehicles. Polaroid has enlisted the technique of utilizing instant messaging as an ad vehicle, citing recent research findings that seventy-two percent of teens exchange IMs every day. Pepsi recently launched a campaign that offers consumers customized ring tones for cellular phones; consumers use codes found under Pepsi bottle caps to download the ring tones from the Internet (Elliot, 2006). Wendy’s created a character reminiscent of its square hamburger patties, which has its own website and a profile on MySpace.com (Elliot, 2006). Subway has created a website devoted to Jared Fogle, the long-time subject of the company’s ad campaign, for customers interested in Fogle’s background (Elliot, 2006). Randy Falco, COO of NBC Universal Television Group, sites the rise of non-

traditional methods like these to a paradigm shift in the advertising world. Instead of pursuing multitudes of consumers at one time, advertisers are now trying to reach and engage one consumer at a time, Falco adds (Elliot, 2006). McDonald's vice president and international media director, Giovanni Fabris, favors non-traditional media such as cellular phones because of their ability to deliver specifically targeted message to the appropriate consumer at a specific time (Elliot, 2006). Non-traditional media also sometimes involve less capital outlay and thus lower risk than traditional media. Van Camp reports that utilizing non-traditional media vehicles such as instant message offers a low-risk return on investment and an incredibly high level of user interactivity, especially when compared to traditional ad vehicles such as billboards and television (Van Camp, 2004).

**CHAPTER 2**  
**LITERATURE REVIEW**

## Differing Approaches to Interactivity

Though interactivity has emerged as a response to the ever-increasing number of web users and seems to be at the hub of all new media techniques and technologies, it is a relatively uncharted concept. According to interactivity researcher, Erik Bucy (2004a), thirty years of study has only produced an obscure description of the concept, and not much insight into the positive and negative aspects of interactivity. The research that has been done has resulted in a broad and seemingly disjointed list of theoretical and operational definitions (Kiousis 2002). Moreover, Kiousis adds that as new communication technologies are developed, much of the traditional techniques are being updated accordingly. The same holds true for interactivity, though it is still a relatively young concept. Thus it is important to investigate the characteristics and evolution of interactivity.

Though levels of interactivity vary by medium, it is most closely associated with the newer technologies like the Internet. An overarching theme in interactivity research is its ability to promote receiver feedback and user interaction with the medium or content, and to facilitate interactions similar to interpersonal communications (Walther and Burgoon 1992; Williams et al 1988; DeFleur and Ball-Rokeach 1976). Where issues seem to arise with this is that most interactive experiences are technologically mediated, and therefore it is difficult to replicate the face-to-face interaction that is characteristic of interpersonal communication (Kiousis 2002).

The research paths seem to diverge on how interactivity is defined (Tremayne 2005). Past research has defined interactivity structurally, determined by a process (Rafaelli 1988) or by technological characteristics of the medium, such as interactive features like hyperlinks (Sundar 1998, 2004). However, other research defines interactivity perceptually, or as a user's perception

of interactivity or interactive features (McMillan 2000). In investigating the evolution of interactivity as a concept, it is important to examine both research strains.

Newhagen and Cordes (1995) operationalize interactivity based on the perception of the individual. Here, interactivity is a psychological variable in an examination of NBC news viewers' emails and their perceptions of interactivity. Similarly, Wu (1999), considers interactivity a perception-based variable that lies inside a person's mind. Still focusing on the user, Steuer (1992) holds that interactivity is "the extent to which users can participate in modifying the form and content of a mediated environment in real-time" (p. 84). The researcher goes on to note that the level of interactivity should correspond with telepresence levels, or the user's sense of being present in a physical environment through mediation in the remote environment.

For other researchers, process is the determinate of interactivity, where feedback is the focus. Rafaeli (1988) defines interactivity in a communication exchange as any third or subsequent transmission that relates to the preceding, or earlier message in the exchange. This builds upon Bretz's (1983) findings, that there must be more than two actions for an exchange to be characterized as interactive. Rafaeli and Sudweeks (1998) provide that, in observing interactivity in a communication setting, the interactive processes can be observed in message exchanges. Bucy (2004a) notes, that the 'message-related' definitions, enable precise interactivity measurement through synthesis of message exchange transcripts and other interpersonal or organizational communication models. However, this type of analysis seems to put too many limitations on the concept by favoring computer-mediated communication, while not considering mass media. The common link between communication setting interactivity and technology centered interactivity is the control that users have over the form and content of any type of



mediated interaction. However, users may not ever actually exert control over the interactive experience, or engage in Rafaeli's three-message model, but they still may feel, as Laurel points out, that they are 'participating in the ongoing action of the representation' (Bucy, 2004).

Stromer-Galley (2004) holds that interactivity can be broken down into two realms—product and process. Interactivity as a product involves user interaction with the content, where the user has total control over the selection and presentation of content. She also refers to this concept as media interaction, where the content can be textual, audiovisual, or multimedia in nature. The second type of interactivity, process interactivity, involves person-to-person communication facilitated by the interactive technology, what she calls human interaction (Stromer-Galley 2000).

There have also been other attempts at defining and categorizing interactivity structurally. Sundar's (2004) research highlights the "calls to action" that different media interfaces provide. Here, the more chances a user has for immediate involvement, along with a high-speed feedback channel, the more interactive the experience. Laurel (1986) provides that frequency of user choices, significance of interface actions, and range of choices available are key aspects of the interactive structure. Later, the researcher added that the interactive sensation, or the feeling of "participating in the ongoing action of representation" could come from other aspects, such as sensory immersion or tight coupling of kinesthetic input and visual response. Likewise, Steuer (1995), provided three elements that enhance interactivity: speed of interaction, or response time, the series of attributes that can be varied in a mediated environment, and the ability of a system to map its controls to user actions in a natural and predictable manner.

Like Steuer, other research focuses on control. Bucy (2004a) defines control as the capacity to semantically influence or physically alter the content of reciprocally active message exchanges. Steuer continues to define interactivity as the extent to which users can participate in modifying

the form and content of a mediated environment in real time. Similarly, Neuman (1991) provides that interactivity is 'characterized by increased control over the communication process by both the sender and receiver'. Furthermore, Williams, Rice and Rogers (1988) supply that interactivity is the 'degree to which participants in a communication process have control over, and can exchange roles in, their mutual discourse'. Additionally, Jensen (1998) concluded that interactivity is 'a measure of a media's potential ability to let the user exert an influence on the content and/or form of the mediated communication'.

Contrary to previous research, (Isotalus, 1998), and (Rafaeli and Sudweeks, 1998) Bucy has found that interactivity should involve some sort of media, information and communication and technology. The researcher provides that interactivity should not be confused with social interaction, face-to-face, or person-to-person interaction. It can include human interaction, but it must be mediated, as with online chat, instant messaging, discussion boards or teleconferencing. Interactivity can also take on a more impersonal structure, with nonhuman agents, such as audio/video downloads, e-mail requests to a listserv majordomo, computer game playing, e-commerce transactions, etc. This is particularly important to the current study as the Interactivity: High condition will include electronically mediated face-to-face communication. For the purposes of this study, the specific type of interactivity displayed in the Interactivity: High condition, where a character is instructing the viewer, will be termed instructive interactivity.

Bucy also defines interactivity by the location in which it occurs. Here, interactivity becomes a property of either the technology, the communication setting or the perceptions of users. In reference to technology, Bucy notes that when interactivity is dealt with as a property of technology, interactivity is linked to the set of interface actions that the technology allows. Norman (1999) adds, however, that unless the technological allowances of a particular medium

are apparent to users, those technological capabilities will not be utilized. This connection between technological understanding and interactivity produces what van Dijk (2000) calls usage gaps, or the inability of less experienced or less sophisticated users to take full advantage of the advanced technology. Additionally, Bucy provides that defining interactivity as “only those actions and reactions that are physically observable”, as Heeter (2000) does, limits the concept to being only a technological factor and not also an experiential one.

### Multi-Level Approaches to Interactivity

Ha and James (1998) use a multi-dimensional method to describe interactivity. They postulate that interactivity should be defined in terms of the extent to which the communicator and the audience respond to, or are willing to facilitate each other’s communication needs. It can be measured in terms of “playfulness, choice, connectedness, information collection, and reciprocal communication. Using Stephenson’s (1967) research, Ha and James define ‘play’ as the interlude from work and a voluntary behavior. Audience members look to the Internet and other multimedia because information technology enhances and alters the entertainment experience. Ha notes that the input of ‘play’ on the part of viewers is considered the essence of interactivity by web designers.

This research also gives insight into the realm of video games, where the fun in a game is the sense of the success enjoyed by the player. While the realm of online gaming has changed drastically, at the time of her research, Ha found that the majority of the games on the internet, tend to be solitary games for individuals. This finding correlates with Stephenson’s Play Theory on Mass Communication (1967). He notes that all mass media content is ‘play’ for the audience, not just information. Here, play is defined as “an inner talk or conversation within oneself that provides pleasure for an individual. Ha notes that the ‘playfulness’ factor of interactivity occurs

within a particular person, rather than between another person. Here she concludes that this represents a desire to communicate with oneself, rather than with others. The degree to which a person is able to meet his self-communication needs electronically illustrates that games and other online curiosity arousal devices qualify as interactive.

In discussing 'choice', Ha provides that this dimension of interactivity consists of the availability of choice in a struggle with unrestrained navigation in cyberspace. Agreeing with Laurel and Steuer's assignment of choice, Ha draws a connection between playfulness and choice; like playfulness, choice also provides a certain amount of pleasure and satisfaction. As a result, as Pavlik (1996) notes, the audience member feels empowered in her ability to choose from several different available alternatives. Choice also may be associated with minimizing effort in the achievement of a task. Ha's example occurs when users are offered the option of choosing a particular language when navigating a website. Moreover, websites that accommodate different text and graphic platforms allow those visitors with different browsers to access the full content of the website. This, Ha and James note, ensures that the user does not feel disadvantaged when encountering the technical requirements of the top end technology. They go on to provide that when a user is presented with several different options while interacting with a website, they feel welcomed, respected and empowered. In turn, the user will spend more time on the site, exploring those different options and taking in more of the available information.

Hyperlinks offer the user connectedness, Ha and James third characteristic of interactivity. Based on the findings of Snyder (1996), hypertext creates a feeling of connectedness to the outside world by allowing users to transfer from one site to another with minimal effort. This allows the user to broaden his experience very easily. Ha and James note that connectedness is a

factor of interactivity that may accumulate over time. They cite Walther and Burgoon's 1992 experiment that compared computer users with face-to-face communication groups in finishing three decision-making tasks. Walter and Burgoon found that the lack of non-verbal communication can be compensated by computer users' accumulation of experience over time. They found that computer users understand their "communication counterparts" as well as face-to-face communicators. Because the communication interaction does not occur simultaneously, more time is allowed to develop relationships among computer user groups than face-to-face communication groups.

Newhagen (2004) also utilizes a multi-level approach to interactivity. On the interpersonal level, interactive communications stimulate individual communication. On the level of mediated interactions, interactivity can take the form of mass communication. In Newhagen's research, the sender of the message (a television personality), while attempting to respond to an individual message, broadcast a message to a mass audience, one receiver at a time. The concept of examining the mass audience individually stems from earlier work (Hawkins, 1988) to find a common ground between mass communication and interpersonal communication. Beniger's (1987) research supports this; he observed that interactivity is often best understood as a "perceptual variable within the individual". Bucy adds that unless a communication environment is perceived as interactive, no amount of media technology, tactile engagement or message exchange will benefit the user. Eighmey (1996) notes that playfulness or fun is essential to the success of a website; it must combine both entertainment value and information to solicit a viewer's interest.

It is important to note that the effects of interactivity are not always necessarily positive. Burgoon, et al (2002) has concluded, conversely from Rafaeli (1988), that interactivity may not

always have such a positive effect on the parties involved. While most often thought of as a tool that enhanced user motivation, acceptance and satisfaction, Burgoon (2002) purports that “interactivity itself is value-neutral, although the outcomes associated with it may be value-laden.” Interactivity can have positive or negative effects, and this determination is predominately in the hands of the user. For instance, Sundar (2000) has found that multimedia downloads on online news sites actually serve to hinder memory and contribute to negative perceptions of the website, and also negatively impact a users feelings toward the quality of the news being reported. Sundar goes on to say that interactive web features may take a significant cognitive and emotional toll on users because they demand more patience, expertise and cognitive resources. These higher levels of interactivity, Sundar provides, increases the probability for confusion, frustration and decreased memory. Additionally, Heeter (2000) also suggested that greater interactivity does not equate to greater experiences, as overly complex interface design requires more singular interactions and takes more time to achieve a sought goal than a more streamlined interface. Furthermore, Conklin (1987) and Thuring (1995) add that the feeling of confusion and disorientation that results from this dissonant environment, causes negative appraisals of the media experience. Bucy (2004b), in a study with 74 undergraduate students surfing online news websites, found that “although interactive conditions were rated significantly more participatory, involving, and immediate than noninteractive conditions, interactive tasks also generated significantly more confusion, disorientation, and frustration” than tasks using a lower level of interactivity (p. 65). Bucy refers to this as the interactivity paradox. These findings were the result of a study on user responses to major newspaper and television network news sites.

The research of Ha and James (1998) corroborate with these findings. Aside from not wanting to experience the negative effects of over-interactivity, reciprocal, two-way communication may not always be the desire of both parties. In their studies of computer-mediated communication, some audience members are quiet observers and ‘lurkers’ who never participate while other members are active participants who contribute frequently to the discussion.

The wide-ranging effects of interactivity are not reserved to just online news or advertising, but also span to the realms of political, marketing and entertainment environments. Sundar (1998) found that in the realm of online political contexts, too much interactivity can have negative results for a particular candidate, while moderate interactivity can actually contribute to the candidates appeal. In a marketing context, Liu and Shrum (2002) found that interactivity has a negative impact on advertising, especially when joined with the requirement of completing a difficult task. In a study of interactive movie viewing, Vorderer, Knobloch, and Schramm (2001) found that enjoyment of the media experience depended on the viewer’s cognitive capacity. Viewers with a lower cognitive capacity were more entertained and had a higher positive response to watching films without any interactivity. Conversely, viewers with a higher cognitive ability were entertained more by interactive features, and thus rated the film more positively.

#### Interactivity as a Perceptual Construct

Examining interactivity from the perception of the user leads to new conceptual criteria. Focusing on user perceptions releases interactivity from a narrowly defined computer-mediated or message-based context. (Bucy 2004). Here, some new media formats may be perceived as offering opportunities of interaction or other forms of user participation, even when the environment does not feature any of the characteristics researchers have identified with interactivity. Norman (1999) found that users with more experience with advanced information

or communication technologies are going to perceive different levels of interactivity for the same medium, than those of a lower skill or experience level. Along these lines, interactivity is found in the user's experience, or subjective context. McMillan and Hwang (2002) add that while perceived interactivity is difficult to observe, it can be measured in a way similar to attitudes, perceived behavioral influence and other perceptual constructs.

A study on viewer email communications to NBC by Newhagen, Cordes and Levy (1995) illustrates how users may perceive a communication environment as interactive even when there is no noticeable evidence of user control or "system/receiver reciprocity." Here, messages submitted were categorized at three separate levels: macroscopic (letters to the editor), mezzoscopic (letters to the Nightly News team), or microscopic (letters to Tom Brokaw, or other members of the news staff). NBC never responded to any of the letters; leaving Newhagen et al to conclude that there is a distinct correlation between the "viewer's psychological sense of worth and their perception of the media system's interactivity. Bucy notes that all of this—viewers perceiving interactivity, control or communication reciprocity when there are no observable signs of it, points to the psychological dimension of interactivity, which has been the aim of several quantitative studies (Holmqvist, 1993; Laurel, 1991; Pearce 1997; Turkle, 1984). Much research (Reeves and Nass, 1996) has confirmed that often user perceptions are much more convincing, or more often perceived as truth, than reality. Hoffman and Novak (1996) have found that "a consumer's perception of behavioral control...and its impact on intentions and actions is more important than real control."

Screven (1999) hypothesizes that perceived interactivity, or orientation to interact with the media, or communication technology may be a characteristic of personality. Heeter (2000) adds, "a participant's general disposition helps to define their overall orientation toward designed



experiences”. Bucy adds that it is important to approach interactivity at a perceptual or personality level, rather than an exhibited behavior or exacting communication exchange because it makes the concept more mainstream and part of the everyday media experience. Similarly, Wu suggested that “a theory of interactivity is incomplete without considering both structural and perceived interactivity” (2005: 55), and proposed that perceived interactivity mediates effects of structural interactivity on consumer attitudes. As such, this study approaches viewer perceptions of online movie advertising with the concept of perceived interactivity mediating structural interactivity as its main framework.

### Involvement

In investigating advertising and involvement, specifically, Krugman (1965) is often credited as being the first researcher to suggest that a consumer’s level of involvement will influence the manner in which he processes and responds to advertising information. An important variable in the consumer decision-making process, involvement is generally defined as personal relevance (Zaichkowsky, 1985). Zaichkowsky goes on further to define product involvement as a user’s perceived relevance in a product based on his inherent values, interests and needs. Other researchers add that involvement is a combination of situational factors and enduring traits (Richins, Bloch and McQuarrie 1992). Mitchell (1979) found that involvement with a product is directly linked to message process motivation. Rothschild (1979) found that consumers were more likely to pay attention to and willingly process brand related information from more-involving product categories. Greenwald and Leavitt (1984) define involvement as the allocation of attentional capacity to a message source at one of four, increasing levels of audience involvement: preattention, focal attention, comprehension, and elaboration. At lower levels of involvement, the consumer extracts relevant information to determine if higher levels of

involvement will occur; the consumer subsequently uses the information obtained in low-level extraction in his higher-level analyses. Building on Craik and Lockhart's (1972) research, they found that the higher the level of involvement, the more long-lasting the cognitive and attitudinal effects.

Additionally, other researchers have found that attitude message involvement (a motivational state that induces message processing) influences how consumers process advertising content, (Gardner 1985; Muehling and Laczniak 1993). Moreover, Muehling and Laczniak (1988) found that highly-involved consumers draw on both their attitude toward the ad and brand perceptions to form brand attitude after being exposed to the ad. Additionally, other researchers (Johar 1995; Tucker, Reece and Rifon 1996) have found that the inferences a consumer draws from an advertisement is a result of his level of involvement with the message of the ad. Andrews, Durvasula and Akhter (1990) also found that the consumer's 'felt' level of involvement (overall subjective feeling of personal relevance for an ad) and the cognitive results are likely to be related to more personal variables, i.e. product class involvement and product knowledge. Laczniak, Kempf and Muehling (1999) found that lasting, pre-existing factors, such as product class involvement and product knowledge, coupled with situational variables affect an individual's response to an advertising message.

While not a new concept to the realm of advertising, product involvement in relation to web advertising is continuously being researched. Yoo and Stout (2001) found that users with a higher level of product involvement are more likely to interact with the subject matter of a website and process that content more actively. Thus, product involvement is more likely to direct consumer search behavior with regard to Web advertising. Similarly, Rodgers and Thorson (2000) note that consumer motives affect browsing behavior. Consumers who browse Web ads

to pass the time are likely to spend less time processing ad content than those users researching a major purchasing decision. Hopkins, Raymond and Mitra (2004) found that involvement significantly moderated the effects of telepresence levels on consumers' attitude toward the advertisement and the brand, and intent to purchase. Likewise, Wills, Samli and Jacobs (1991) found that with regard to marketing high-involvement products, rational advertising appeals were more effective, while emotional appeals were best utilized with low-involvement products. Using 120 subjects in a 2 x 2 between-subjects factorial experiment, Kenneth Yang (2004) focused on how consumer motives influence surfing behavior, with regard to product involvement and advertising appeals, operationalizing them high vs. low and rational vs. emotional, respectively. He found that high involvement products resulted in increased surfing as opposed to low involvement products. Similarly, rational appeal advertising resulted in increased searching versus emotional appeal advertising.

### Interactivity and Other Factors

Just as comparatively little progress has been made in the study of interactivity as a concept, even less research has been done in coupling the effects of interactivity with other consumer-oriented variables, to determine the extent of the effects of interactivity. With regard to interactive advertising, some researchers have begun to investigate the connection between interactivity and attitude toward the website. While some studies did not find a noteworthy correlation between interactivity and attitude (Bezjian-Avery, et al, 1998), others found significant relationships between interactivity and attitude (Cho and Leckenby 1999; McMillan 2000; Yoo and Stout 2001).

Hwang and McMillan (2002), in search of new metrics in determining the relationship between attitude and interactivity investigated the role of interactivity of a website and also

involvement with the topic of that website, in determining a viewer's attitude toward the website. In previous research interactivity and involvement were operationalized in terms of site features that could possibly increase interactivity rather than a viewer's perception that interactivity exists, and involvement with technology rather than involvement with the particular subject of the website, respectively. Using regression and correlation analysis, and a sample size of 65, they found that perceived interactivity is a strong indicator of attitude toward the website, and is a stronger predictor of attitude toward the website than involvement alone. While involvement was shown to considerably impact the prediction of attitude toward the website—subjects have a more favorable attitude towards sites containing content in which they are interested—there was no correlation with perceived interactivity measures. Thus, leaving Hwang and McMillan to conclude that involvement and interactivity operate independently in influencing attitude toward the website.

Further investigating interactive web advertising, Sicilia, Ruiz, and Munuera (2005) conducted an experiment where 213 undergraduate students were randomly assigned to two navigate one of two interactive conditions, involving either an interactive or non-interactive version of a fictitious website. Participants interacted with the website for five minutes and then took a survey designed to measure various brand metrics, including product knowledge and attitude toward online ads through Likert scales and elicitation. The researchers found that, “the interactive website leads to more information processing, higher favorability toward the product and the Web site...” (Sicilia, Ruiz, and Munuera, 2005, p. 31).

Wu (2005) researched the role of perceived interactivity as a mediator in the relationship of structural interactivity and attitude toward the website. Here, he defines perceived interactivity as a psychological state a user enters into when interacting with a website. Wu (2000), purports that

perceived interactivity is discernible in three dimensions: perceived control over the site navigation, the pace or rhythm of the interaction, and the content being accessed; perceived responsiveness from the site owner, from the navigation cues, and from people online; and perceived personalization or customization of the site in relation to the site acting as if it were a person, the site acting interested in knowing the site visitor, and the site acting as if it understands the user. In order to determine the interaction between perceived interactivity and structural interactivity, Wu used a sample of 157 subjects, who were exposed to two different versions of a website for a fictitious dietary supplement, with interactivity being varied (high vs. low). Drawing from previous research, (Fortin 1997; Frazer and McMillan 1999; Van Tassel 1988), structural interactivity was operationalized using the presence and/or absence of interactive features, i.e. email hot-link, JavaScript-enabled mouse-over effects, online chat-room, searchable pull-down menu, product image, and dynamic creation of content. Wu utilized Baron and Kenny's (1986) framework, along with regression analyses to determine the mediational effects of perceived interactivity. He found a strong, positive relationship between structural interactivity and perceived interactivity. Additionally, both were found to have a positive effect on attitude toward the website, but Wu also found a strong mediating role of perceived interactivity on structural interactivity and attitude toward the website. This mediational effect, he purports, renders the effect of structural interactivity on attitude toward the website insignificant.

Going beyond attitude toward a website, Macias (2003) investigated how interactivity and product involvement and web experience affect comprehension of a website. Macias employed a two-cell (interactivity: low/high) between subjects factorial design to test comprehension and the limited-capacity processing model with a sample of 153 undergraduate students. She found that

interactivity helps to improve comprehension, and product involvement and web experience are important elements in the relationship between interactivity and comprehension. She found product involvement directly influences comprehension; subjects with high levels of product involvement not only better understand information presented, but also feel more positive about their comprehension. Macias also found that interactivity might be serving as an orienting response that improves comprehension through encoding, as predicted by the limited capacity theory. Additionally, subjects with high levels of web experience and high levels of involvement with the product were better able to comprehend the information on a particular website.

However, comprehension was hindered in those subjects with low web experience and low product involvement. She also found that those subjects with high product involvement or Web experience might better respond to interactive elements because of an affinity for the product category, highlighting the importance of consumer motivation when seeking product information. She found that interactive features that are coupled with important content or product features are more likely to increase comprehension, while those interactive elements, which do not relate to the content may distract the user and decrease comprehension.

. In an experiment focusing on Internet advertising, Li and Bukovac (1999) found that animated banner ads resulted in quicker response and better recall rates than non-animated ads. Similarly, in a mixed design factorial experiment investigating the effects of pop-up windows and animation in web advertisements, Sundar and Diao (2004) found that advertising recall was better with those subjects exposed to animated advertisements. Moreover, interactivity is a primary characteristic of what Keng and Lin (2006) define as telepresence levels. They found that as the level of interactivity or telepresence increases, so does the level of the consumer's recall.

Chen, Griffith, and Shen (2005) investigated the effects of interactivity on consumer trust, product evaluations, and resulting purchasing intentions in a multi-channel context (online and offline). Operationalizing interactivity as that of consumers' perception of their interaction with the medium, Chen et al view product experience via a continuum anchored by direct and indirect experience, the team built upon Chen and Griffith's (2004) previous findings that product experiences online can be considered virtual direct experiences (VDE). VDE can also be viewed on a continuum of richness and leanness. Here, the level of conveyance of experiential product attributes as well as the level of realism provided in the product experience, determine whether or not the VDE is rich or lean. As a result, interactivity, because of its influence on realism (Coyle and Thorson 2001), becomes a determinate of richness or leanness. Just as with direct and indirect product experiences, if customers perceive a VDE product experience as more interactive, or richer, they tend to evaluate that product more positively. This research is extremely pertinent to the present study because the instructive interactivity in the Interactivity: High condition can be considered a rich VDE. The interactive ad simulates real interaction with the character; additionally, this interaction highlights experiential product attributes.

Past researchers have found interactivity to have a direct influence on purchase intention (Wu 2000; Yo0 and Stout 2001), while others suggest that interactivity influenced consumer's decision to purchase through perceived quality of the website (Ghose and Dou 1998). Chen et al suggest that interactivity influences consumer's online purchase intentions through normative (trust) and cognitive structures (product evaluation). Using a sample of 100 undergraduate students and the website of the online retailer, Land's End, the team conceptualized interactivity as structural features of the medium that allow immediate feedback within a retail channel. Using Liu's (2002) inverted-U relationship between interactivity and internet-related dependent

variables, Chen et al controlled interactivity using three levels (high/medium/low). Using a Likert scale to measure interactivity, a semantic differential scale to measure trust and product evaluation, and a one-item, seven-point scale to measure online and in-store purchase intentions, the team found that higher levels of interactivity generated higher levels of consumer trust. The influence interactivity has on trust, affects not only online purchasing behavior, but also off-line (in-store) purchase intentions.

Kalyanaraman and Sundar (2006) investigated the relationship between customized, personalized, interactive content and positive attitude toward a web portal. Based on previous research suggesting individuals respond more positively to communication that reinforces their sense of self (Petty, Wheeler and Bizer 2000), and the resulting positive attitude can affect behavior (Fiske et al., 1998), Kalyanaraman and Sundar composed a between-subjects experiment with three levels of customization (low, medium, high). They concluded that users are able to discern different levels of personalization or customization, and higher levels of customization resulted in a more favorable attitude toward the web site on the part of the user; also, the findings supported Carpenter's (2000) previous findings that users are five times more likely to return to a customized, personalized web page. The group found that perceived relevance, perceived involvement, perceived interactivity, and perceived novelty all served as mediators in affecting attitude.

Sundar and Kim (2005) conducted a fully-crossed factorial within participants experiment to determine the persuasive ability of interactivity, and also the relationship of interactivity to the peripheral cues in an advertisement, i.e., animation, ad shape, and its persuasiveness. The team exposed forty-eight subjects to 12 different webpages containing news articles and 36 different ads for a maximum of 90 seconds each. The subjects then completed a questionnaire to



determine their attitudes toward the advertisement and the product being advertised. Sundar and Kim found that interactivity directly affected attitude toward the product (perceived product knowledge, product involvement, and purchase intention). However, they found that animation did not have the same effect; attitude toward the product was more positive when subjects viewed the static advertisement versus the animated advertisement. Animated ads rated higher in perceived interactivity and positively influenced attitude toward the ad, however, they hinder variables associated with attitude toward the product—product involvement, product knowledge, and purchase intention). This information is particularly important to the study at hand because the researcher will be testing a new form of animated interactivity, instructive interactivity, where a character is instructing the user. While ad shape was found to affect attitude toward the advertisement—banner advertisements were consistently rated less positively than square ads—it was not shown to uniformly affect attitude toward the product. Ad shape made no impact on purchase intention, however, square ads ranked noticeably higher on product involvement than banner ads, but lower on perceived product knowledge. Thus the square shape is more conducive to engaging the user, but less effective at relaying product information.

### Engagement

An extremely new concept to the realm of advertising, engagement, has close ties to involvement. Newly defined by the Advertising Research Foundation in March 2006, as “turning on a prospect to a brand idea enhanced by the surrounding context” (Elliott, 2006), engagement has been shown to directly affect consumers’ processing of message effect, i.e. message involvement and believability, advertising recall, attitude toward the message, and attitude toward the advertisement (Wang 2006). Researcher Alex Wang further defines engagement as “a measure of the contextual relevance in which a brand’s messages are framed and presented based

on its surrounding context” (Wang 2006). Drawing on the research of Burnkrant and Sawyer (1983), that a consumer must perceive the information personally relevant before they become involved with an ad message, and Ephron (2006) and Harvey (1997) that engagement initiated by personal relevance is a driver of message involvement because the level of engagement is an indicator of the level of involvement, which determines message processing, Wang provides certain drivers of engagement. The amount of time spent with the medium is an integral component to the level of engagement. Others, as identified by Plummer, are surprise, relevancy, and emotional bonding, (Harvey 2006a). Additionally, ads that elicit a positive response from the consumer increase engagement because an affinity towards the ad has been found to be a strong indicator of attitude towards the ad (Seamon, Marsh and Brody, 1984).

Relevance is another factor that affects engagement. Ephron defines relevance as the congruence between advertising message and the consumer and also the advertisement and the media environment (2005). Wang sites that an advertisement that is contextually relevant to the consumer increases the amount of message involvement and positive attitude formation, thus increasing engagement (2006).

### Website Promotion for Films

The World Wide Web became an integral part of product promotion planning in the late 1990s (Bush, Bush & Harris, 1998). Consequently, movie studios joined a litany of other consumer good companies in using the web to build brand image, increase awareness about the studio and its upcoming films. These elements not only serve to increase the likelihood of site visitors to see the film and subsequently increase ticket sales, but also maintain awareness about a film after opening and throughout the box-office run (Zufryden, 2000). In addition to providing information on the film, i.e. actors and plot, the movie websites also include other activities to

enhance website traffic, including games, items for download, and trailers (Zufryden, 2000). Zufryden also found that a film's website activity, i.e. gross number of page requests, DPOs (total requests during each period from Distinct Points of Origin, and new DPOs, has a statistically significant effect on that film's box-office performance (2000). In former research, Zufryden found that number of pages accessed and time spent on the site were useful and relevant indicators for measuring website effectiveness (1996).

### Hypotheses and Research Questions

Researchers have found interactivity to be a productive tool for consumers and advertisers alike. Some of the benefits of interactivity include positively influencing purchase intentions (Wu 2000, 2005 and Yoo and Stout 2001), positive attitudes toward the website (Hwang and McMillan 2002), information comprehension (Macias 2003), advertising recall (Keng and Lin 2006, Sundar and Dao 2004 and Li and Bukovac 1999). Therefore:

**H1. Participants experiencing higher levels of interactivity will show higher rates of advertising recall.**

**H2. Participants experiencing higher levels of interactivity will show higher rates of positive attitude toward the message.**

Consumer involvement has long been tied to advertising effectiveness. Rothschild (1979) found that consumers were more likely to pay attention to and willingly process brand related information from more-involving product categories. Echoing Craik and Lockhart (1972), Greenwald and Leavitt (1984) found that the higher the level of involvement, the more long-lasting the cognitive and attitudinal effects. Muehling and Laczniak (1988) found that highly-involved consumers draw on both their attitude toward the ad and brand perceptions to form brand attitude after being exposed to the ad. Moreover, consumer involvement has been shown to

also affect web advertising. Yoo and Stout (2001) found that users with a higher level of product involvement are more likely to interact with the subject matter of a website and process that content more actively. Thus, product involvement is more likely to direct a consumer's internet search behavior. Hopkins, Raymond and Mitra (2004) found that involvement significantly moderated the effects of consumers' attitude toward the advertisement with regard to advertising of an interactive nature. Therefore:

**H3. Participants who reported being more involved will experience higher levels of interactivity.**

While, breaking through advertising clutter, research has shown that interactivity is also a driver of positive attitude toward the ad (Hwang and McMillan 2002). Positive consumer attitudes are one of the main drivers of consumer engagement (Wang 2006). Therefore:

**H4. Participants experiencing higher levels of interactivity will show higher rates of engagement.**

This study also explores the following research questions related to topics left unresolved by the studies cited in the literature review:

**RQ 1.** Does click-through to the official *Wild Hogs* website affect ad recall, attitude toward the message, or engagement?

**RQ 2.** Does gender, age, or race reflect any differences in ad recall, attitude toward the message, or engagement?

**RQ 3.** Does mood affect ad recall, attitude toward the message, or engagement?

**CHAPTER 3**  
**METHOD**

## Experiment

Combining elements of past research, for the purpose of this study, a between subjects, experimental design manipulating interactivity (high and low) was utilized. This allowed the researcher to observe interactivity's relationship to involvement and subsequent engagement in an online movie advertisement setting.

A convenience sample of 421 undergraduate students, 18-45, was recruited from introductory mass communication courses at a university in the southeastern United States. The students were given extra credit in their respective courses as an incentive for participation in the study. Participants were randomly assigned to the low interactivity group or the high interactivity condition. For the purpose of this study, interactivity is operationalized as a user's perception of interactivity (McMillan and Hwang, 2002, Wu 1999, Newhagen and Cordes, 1995, Chen et al 2005). However, structural interactivity, or the presence or absence of interactive features (Fortin 1997; Frazer and McMillan 1999; Van Tassel 1998), was used to manipulate the two conditions.

All groups viewed an ad or information on the general website about a forthcoming film from Touchstone, entitled *Wild Hogs*. The film stars Tim Allen, Jon Travolta, and Martin Lawrence. All of the ads were programmed into a webpage made to resemble a Yahoo! Movies webpage. The low interactivity group viewed a static banner ad for the film with a link to the official *Wild Hogs* website. The high interactivity group viewed a fully interactive, expandable banner ad for the same film. This ad included a new form of interactivity the researcher is calling instructive interactivity, or a simulated, human interaction where the user is instructed on how to interact with an advertisement. While the ad simulates real, face-to-face interaction with the character, it is unique in that characters from the movie actually instruct the user on how to navigate the ad. Here, the main characters from the movie introduced themselves and not only instructed the user,

but also discussed the experiential product attributes of the ad. Different characters spoke as the user rolled over and/or clicked on different areas in the ad. Viewers had the option to read about the plot of the film, watch clips, look at images, and download multimedia from the ad, and click through to the official *Wild Hogs* website.

Participants in the low interactivity condition used the web browser Safari to view the ad, while participants in the high interactivity group used the web browser Firefox. Using Safari ensured that the low interactivity group was exposed to a static ad, while Firefox allowed the high interactivity group to experience all the interactive features of their ad. At the start of the experiment, each participant was instructed to click on a minimized web browsing application respective to his or her interactivity condition. Here participants would view the Yahoo! Movies webpage which included the ad for *Wild Hogs*. To ensure a more natural surfing behavior and increase the external validity of the experiment, participants were told to surf and view the webpage and/or advertisement for as long as they wished, as if they were surfing for pleasure at home (Macias 2003). Participants could investigate any and all elements on the page that they wanted, but they were told that the researcher was interested in their feedback on the ad for the movie *Wild Hogs*. The surfing session lasted ten minutes; then participants were asked to click on a minimized application of Firefox to take an online survey (Sicilia, Ruiz, and Munuera, 2005). The survey tested for the participant's movie going behavior, as well as his respective level of perceived interactivity, advertising recall, attitude toward the message, involvement, and engagement. Each session consisted of no more than 10 participants and took place over 6 days. Sessions were conducted in the morning and afternoon.

## Measures

To measure involvement, participants were asked about their movie-going behavior. Respondents who saw more than one movie per month, and/or twelve movies per year were considered highly involved. Those who saw less than one movie per month or twelve per year were coded as low involvement.

Similar to Cacioppo and Petty (1981) and Wang (2006), advertising recall was measured by asking the participants what they remembered about the movie *Wild Hogs*. Answers including listing the opening date, actors performing in the movie, information regarding the plot, etc. were coded as a correct advertising recall. Whereas incorrect information, 'do not remember', 'do not know', or no answer were not coded as an advertising recall (Wang 2006). To test unaided recall, participants were asked, "In thinking of movies currently playing in the theater, what movies come to mind?" Again, respondents' answers were coded as either a correct advertising recall, whereas incorrect information, 'do not remember', 'do not know', or no answer were not coded as an advertising recall (Wang 2006).

To measure attitude toward the message, a 5-item scale asking respondents to complete the sentence, "the messages in the advertisement are..." boring/interesting, not attention-getting/attention-getting, bad/good, not fun/fun, and do not like it/like it (Hallahan 1999, Wang 2006). In Wang's study this measure returned a reliability of 0.94, proving to be very reliable. For the present sample, the scale was found to be internally reliable as well (Alpha = .89).

Attitude toward the product was tested by investigating the respondents' intent to purchase. For the purposes of this study, intent to purchase was tested by asking respondents if and when they plan on seeing the movie in the theater. Respondents were also asked whether they would recommend the movie to a friend.



For the purposes of this study, interactivity is conceptualized as the participants' perception of their interaction with the advertisement. However, borrowing from Chen et al (2005), a unique approach of utilizing technological factors of structural interactivity to vary the different levels of objective interactivity was utilized in order to increase the variance of perceived interactivity (Chen, Griffith and Shen, 2005). Interactivity was measured using a likert scale similar to Wu (2000), Jee and Lee (2002), Chen, Griffith, and Shen (2005). Respondents were asked to rate their agreement, from strongly agree to strongly disagree, to the following statements: (1) This advertisement makes it easy for me to build a connection with *Wild Hogs*. (2) I would like to interact with advertisements like this again in the future. (3) I was satisfied with the service provided by the advertisement (4) I feel comfortable navigating this advertisement (5) I feel like interacting with this advertisement is a good way to spend my time. Researchers used this scale, or modifications of it, where it showed acceptable reliability (Porter, 2006). For the present study, in order to test the reliability of the questions in a scaled form, the researcher performed a factor analysis on the questions. The analysis showed that the reliability of the scale increased when questions four and five were eliminated (Alpha = .83).

Drawing from previous research, engagement was measured through participant feedback (Laczniak, Kempf, and Muehling, 1999; Wang, 2006) Respondents were asked to rate their level of perceived engagement when exposed to the advertisement, where 1 = "not engaged at all" and 5 = "extremely engaged".

## **CHAPTER 4**

### **RESULTS**

The sample (N = 421) of undergraduate students was composed of 199 (47.3%) males and 222 (52.7%) females. This allowed for a wide range of responses, from avid moviegoers to those who rarely see movies in the theater. Of the total sample, 73 (17.3%) respondents were aged 18, 187 (44.4%) were aged 19, 86 (20.4%) were aged 20, 37 (8.8%) were aged 21, 26 (6.2%) were aged 22, seven (1.7%) were aged 23, five (1%) were aged 24 or above.

Of the respondents who identified themselves, 354 (84.1%) were Caucasian, 38 (9%) were African American, seven (1.7%) were Latino, 14 (3.3%) were Asian, four (1%) were Native American, two (0.5%) identified themselves as Other: African and Black/Hispanic respectively. All of the respondents were students in an intro-level mass communication course at Louisiana State University.

Of the 421 respondents, 101 (24%) went to the movies 12 or more times in the past 12 months, 61 (14.5%) reported going 10-11 times in the last 12 months, 69 (16.4%) went eight to nine times, 85 (20.2%) went six to seven times, 105 (24.9%) went to the movies less than six times in the last 12 months.

Next, of the 420 respondents who answered the question, 24 (5.7%) reported going to the movies more than five times in the last two months, 107 (25.4%) said they had been three to four times in the last two months, 239 (56.8%) reported going to the movies one to two times in the last two months, while 50 (11.9%) had not been to the movies in the last two months.

Further, of the 421 respondents 36 (8.6%) reported that they very often see a movie within the first 10 days it is open in the theater, 97 (23%) often see a movie within the first 10 days it is open in a theater, 184 (43.7%) occasionally see a movie within the first 10 days it is open in a theater, 99 (23.5%) rarely see a movie within the first 10 days it is open in a theater, and five (1.2%) said they never see a movie within the first 10 days it is open in a theater.

Moreover, three (0.7%) said they visit a site like Yahoo! movies, Fandango, Moviefone, etc. more than once a day, eight (1.9%) said they visit such sites once a day, 65 (15.4%) said they visit such sites once a week, 99 (23.5%) visit such sites once a month, 120 (28.5%) said they visit such sites less than once a month, 126 (29.9%) said it was their first visit to a site like Yahoo! Movies, Fandango, Moviefone, etc.

Next, of the 420 respondents who answered the question, 27 (6.4%) reported that sites such as Yahoo! Movies are very important in their movie decision-making process, 168 (39.9%) reported that such sites are moderately important, 112 (26.6%) said such sites are of little importance to their movie decision-making process, 66 (15.7%) said such sites were unimportant, 47 (11.2%) said sites such as Yahoo! Movies are very important to their movie decision-making process.

Further, of the respondents, 15 (3.6%) said they would or did see the movie *Wild Hogs* opening weekend in the theater, 39 (9.3%) said they would or did see the movie *Wild Hogs* within the first two weeks of release in a theater, 71 (16.9%) said they would or did see the movie *Wild Hogs* in a theater at a later date, 190 (45.1%) said they would wait to see the movie *Wild Hogs* on video or DVD, and 106 (25.2%) reported that they said they would not see the movie *Wild Hogs*. Meanwhile, a majority of the respondents 247 (58.7%) said they would recommend the movie *Wild Hogs* to a friend while 174 (41.3%) said they would not recommend *Wild Hogs* to a friend.

Next, 10 (2.4%) of the respondents reported feeling extremely engaged with the movie *Wild Hogs*, 153 (36.3%) reported feeling engaged with the movie *Wild Hogs*, 170 (40.4%) reported feeling neither engaged nor unengaged, 65 (15.4%) reported feeling unengaged, and 23 (5.5%) reported feeling extremely unengaged with the movie *Wild Hogs*.

Of the 420 respondents who answered the question, 295 (70.1%) reported that they clicked through to the official *Wild Hogs* website, while 125 (29.7%) reported they did not click through to the official *Wild Hogs* website.

Next, with regard to the *Wild Hogs* advertisement, of the respondents, four (1%) said it was one of worst compared to other online movie advertisements, 15 (3.6%) said it was pretty bad, 174 (41.3%) said it was neither the worst nor the best, 198 (47%) said it was pretty good, 30 (7.1%) said it was one of the best.

Furthermore, 72 (17.1%) said they would be unlikely to tell their friends about the *Wild Hogs* advertisement, 142 (33.7%) said they were unlikely to tell their friends, 108 (25.7%) were unsure whether they would tell their friends, 89 (21%) said they were likely to tell their friends, and 10 (2.4%) reported they would be very likely to tell their friends about the *Wild Hogs* advertisement.

### Results of Hypothesis Testing

The first hypothesis, which states that participants experiencing higher levels of perceived interactivity will show higher rates of advertising recall, was not supported. This hypothesis assumed that respondents reporting a higher level of perceived interactivity would report higher levels of advertising recall. A Kappa correlation, which is a measure of agreement for nominal variables, was conducted; results were not significant,  $Kappa = -.07, p = .152$ . Results of a one-way analysis of variance (ANOVA) found no significant difference in advertising recall among participants reporting a low level of perceived interactivity ( $M = 1.64 SD = .48$ ) and those participants reporting a high level of perceived interactivity ( $M = 1.57 SD = .50$ ) ( $F(1, 417) = 2.05, p = .15$ ).

The second hypothesis, which states that participants experiencing higher levels of interactivity will show higher rates of positive attitude toward the message, was supported. This hypothesis assumed that respondents reporting a higher level of perceived interactivity would report more positive attitude toward the messages in the ad. Results of a one-way analysis of variance (ANOVA) revealed that the 250 respondents reporting a high level of perceived interactivity, reported more positive attitudes toward ad messages ( $M = 18.26$   $SD = 2.939$ ) than the 169 respondents reporting a low level of perceived interactivity, ( $M = 14.142$ ,  $SD = 3.398$   $F(1, 417) = 171.754$ ,  $p = .000$ ). Results of an independent samples  $t$ -test revealed a significant difference between the groups,  $t(415) = -13.06$ ,  $p = .000$ . In terms of attitude towards the advertisement, this indicates that participants reporting high levels of perceived interactivity reported significantly higher positive attitudes ( $M = 18.27$ ,  $SD = 2.94$ ) than the participants reporting a low level of perceived interactivity ( $M = 14.19$ ,  $SD = 3.4$ ).

The third hypothesis, which states that respondents who reported high levels of involvement would report high rates of perceived interactivity, received limited support. This hypothesis assumed that more involved participants would report a higher level of perceived interactivity. Results of a one-way analysis of variance (ANOVA) found a difference approaching significance in levels of perceived interactivity among participants reporting a low level of involvement ( $M = 8.38$   $SD = 1.74$ ) and those participants reporting a high level of involvement ( $M = 8.71$   $SD = .50$ ) ( $F(1, 416) = 3.57$ ,  $p = .059$ ).

To further investigate the relationship between perceived interactivity and involvement, the researcher performed a one-way analysis of variance (ANOVA) to determine if the two variables affected intent to purchase, or intent to see the film. Results revealed that among the groups (low perceived interactivity/low involvement, low perceived interactivity/high involvement, high

perceived interactivity/ low involvement, and high perceived interactivity/high involvement), there was a significant relationship between the level of involvement and the level of perceived interactivity, and intent to see the film,  $F = (3, 415) = 22.71, p = .000$ . The means and standard deviations for the four groups are displayed in Table 4.1. Following the significant ANOVA, Tukey HSD post-hoc tests were conducted. All the comparisons between the groups were significant at the  $p < .001$  level, except for two: between Low Interactivity/Low Involvement and Low Interactivity/High Involvement ( $p = .225$ ) and between Low Interactivity/High Involvement and High Interactivity/Low Involvement ( $p = .475$ ). As the participant's level of perceived interactivity and involvement increased, so did the participants intent to see the film, with the high interactivity/high involvement group reporting the highest intention to see the film ( $M = 3.74$   $SD = 1.50$ ).

**Table 4.1**  
**Differences In Intent to See the Film between Groups**

	<u>Mean</u>	<u>SD</u>
1. Low Perceived Interactivity/ Low Involvement ( $n = 111$ )	2.24 <sup>c, d</sup>	1.14
2. Low Perceived Interactivity/ High Involvement ( $n = 57$ )	2.67 <sup>d</sup>	1.70
3. High Perceived Interactivity/ Low Involvement ( $n = 146$ )	2.97 <sup>a, d</sup>	1.25
4. High Perceived Interactivity/ High Involvement ( $n = 105$ )	3.74 <sup>a, b, c</sup>	1.50

<sup>a</sup>significantly different from group 1 ( $p < .001$ )

<sup>b</sup>significantly different from group 2 ( $p < .001$ )

<sup>c</sup>significantly different from group 3 ( $p < .001$ )

<sup>d</sup>significantly different from group 4 ( $p < .001$ )

The fourth hypothesis, which states that participants experiencing higher levels of interactivity will show higher rates of engagement, was supported. Results of a one-way analysis

of variance (ANOVA) revealed that the respondents experiencing a high level of perceived interactivity felt more engaged ( $M = 3.50, SD = 0.722$ ) than the respondents perceiving a low level of interactivity ( $M = 2.60, SD = .873, F(1, 419) = 132, p = .000$ ). Results of an independent samples  $t$ -test revealed a significant difference between the groups,  $t(417) = -11.71, p = .000$ . In terms of engagement, this indicates that the respondents reporting a high level of perceived interactivity ( $M = 3.51, SD = .72$ ) felt significantly more engaged than respondents reporting a low level of perceived interactivity ( $M = 2.60, SD = .87$ ).

### Results of Research Question Testing

The first research question asks if clicking through to the official *Wild Hogs* website affects respondents' reporting of ad recall, attitude toward the message, or engagement. There was not a significant relationship with regard to click-through and ad recall,  $t(416) = -.87, p = .385$ . With regard to attitude toward the ad message, there was a significant relationship between respondents' click-through rate and positive attitude toward the message. Results of an independent samples  $t$ -test reveals a significant difference between the groups,  $t(414) = 3.61, p = .000$ . In terms of attitude towards the advertisement, this indicates that the mean for the group that did click-through to the *Wild Hogs* website ( $M = 17.05, SD = 3.71$ ) and was significantly higher than the mean group that did not click through ( $M = 15.63, SD = 3.57$ ). There was also a significant relationship between respondents' click-through rate and their reported level of engagement. Results of an independent samples  $t$ -test reveals a significant difference between the groups,  $t(416) = 4.43, p = .000$ . In terms of engagement, this indicates that the mean for the group that did click through to the *Wild Hogs* website ( $M = 3.27, SD = .87$ ) and was significantly higher than the group that did not click through ( $M = 2.86, SD = .91$ ).



In observing the effects of click-through on brand metrics, the researcher decided to further investigate the effects of click-through and perceived interactivity on engagement. Results of a one-way analysis of variance (ANOVA) to determine if the two variables affected engagement revealed that among the groups (low perceived interactivity/no click-through, low perceived interactivity/click-through, high perceived interactivity/no click-through, and high perceived interactivity/click-through), there was a significant relationship between click-through and the level of perceived interactivity, and engagement,  $F = (3, 416) = 46.49, p = .000$ . Results of a one-way analysis of variance (ANOVA) to determine if the two variables affected attitude toward the ad messages revealed that among the groups (low perceived interactivity/no click-through, low perceived interactivity/click-through, high perceived interactivity/no click-through, and high perceived interactivity/click-through), there was a significant relationship between click-through and the level of perceived interactivity, and attitude toward the ad messages,  $F = (3, 414) = 57.48, p = .000$ .

The means and standard deviations for the four groups are displayed in Table 4.2. Following the significant ANOVA, Tukey HSD post-hoc tests were conducted. All the comparisons between the groups were significant at the  $p < .001$  level, except for two: between low perceived interactivity/no click-through and low interactivity/click-through ( $p = .105$ ) and between high perceived interactivity/no click-through and high perceived interactivity/click-through ( $p = .806$ ).

**Table 4.2**  
**Differences In Engagement between Groups**

	<u>Mean</u>	<u>SD</u>
1. Low Perceived Interactivity/ No Click-Through ( <i>n</i> = 73)	2.45 <sup>c, d</sup>	.85
2. Low Perceived Interactivity/ Click-Through ( <i>n</i> = 96)	2.72 <sup>c, d</sup>	.88
3. High Perceived Interactivity/ No Click-through ( <i>n</i> = 52)	3.42 <sup>a, b</sup>	.67
4. High Perceived Interactivity/ Click-Through ( <i>n</i> = 199)	3.53 <sup>a, b</sup>	.74

<sup>a</sup>significantly different from group 1 ( $p < .001$ )

<sup>b</sup>significantly different from group 2 ( $p < .001$ )

<sup>c</sup>significantly different from group 3 ( $p < .001$ )

<sup>d</sup>significantly different from group 4 ( $p < .001$ )

The second research question asks if gender, age, or race, reflect any differences in ad recall, attitude toward the message, or engagement. With regard to gender, there was not a significant relationship between gender and ad recall. Results of an independent samples *t*-test reveals a significant difference between the groups,  $t(417) = -.04, p = .97$ . There was also not a significant relationship between gender and attitude toward the message. Results of an independent samples *t*-test reveals a significant difference between the groups,  $t(415) = -1.23, p = .220$ . However, there was a significant relationship between gender and engagement. Results of an independent samples *t*-test reveals a significant difference between the groups,  $t(417) = -2.31, p = .02$ . This means that the 222 females reported feeling more engaged ( $M = 3.24, SD = .84$ ) than the 199 males ( $M = 3.04, SD = .95$ ).

In observing age, there was no statistical significance with regard to ad recall, attitude toward the ad messages, or engagement. Additionally, with regard to ethnic background, there was no statistically significant relationship between ethnic background and ad recall, attitude toward the ad messages, or engagement.

The third research question asks if mood affects ad recall, attitude toward the ad, or engagement. There was no significant relationship between mood and ad recall. A Kappa correlation, which is a measure of agreement for nominal variables, was conducted; results were not significant,  $Kappa = -.007, p = .889$ . There was a significant relationship between mood and attitude toward the advertisement. Results of an independent samples *t*-test reveals a significant difference between the groups,  $t(415) = -9.07, p = .000$ . In terms of attitude towards the advertisement, this indicates that the mean for the group that was in a good mood ( $M = 18.04, SD = 3.50$ ) and was significantly higher than the mean group that did not click through ( $M = 15.01, SD = 3.30$ ).

Results indicated that there was a significant relationship between mood and engagement. An independent samples *t*-test reveals a significant difference between the groups,  $t(417) = -6.34, p = .000$ . In terms of engagement, this indicates that the mean for the group that scored higher than average on the mood scale ( $M = 3.40, SD = .80$ ) and was significantly higher than the mean of the group that scored lower than average on the mood scale ( $M = 2.86, SD = .93$ ).

**CHAPTER 5**  
**DISCUSSION**

The field of advertising continues to evolve; power seems to be changing hands from corporation to consumer. Brands are no longer molded and then delivered to the consumer. The consumer actually creates the brand experientially over time and through many different media (Einstein and Pollack 2000). Consequently, corporate advertisers, designers and ad agencies must also evolve in order to continue to effectively communicate with consumers. As a result, new media are being recruited to break through advertising clutter and make corporate communication with consumers “much more two-way, with consumers capable of engaging in dialogues through interactive media and content they themselves create” (Creamer, 2006). The purpose of this research was to investigate how interactivity in new media affects or drives consumer engagement, in order that all parties involved in the consumer communication process might become better informed of the advantages and downfalls of users’ perceptions of interactivity in online advertising.

Past research, Sundar (2004), Rafalei (1998), Laurel (1986), has shown structural interactivity to be a stronger driver of brand metrics. This study found that it is actually the users’ perception of interactivity, or perceived interactivity that is a stronger driver of brand metrics. This means that while a designer may feel that an advertisement is highly interactive, a user’s perception of interactivity actually more effective at increasing consumer engagement.

### Conclusions

The results of this study held with previous research to illustrate the positive effects of interactivity (Wu 2000, 2005; Yoo and Stout 2001; Hwang and McMillan 2002; Macias 2003). Perceived interactivity proved to be a significant driver of nearly every brand metric that was tested. Over half of the respondents (n = 250) who experienced a high level of perceived interactivity reported higher levels of positive attitude towards the message, higher levels of

engagement, than those respondents (n = 169) who reported experiencing a low level of perceived interactivity.

The results further illustrate the impact of perceived interactivity on consumer's attitudes. The higher a consumer's perceived level of interactivity is, the more positive his attitude toward the advertisement will be. Additionally, the findings also give more insight into consumer engagement. Perceived interactivity was shown to positively affect engagement. This could be due, in part, to the new form of interactive enacted in this study—instructive interactivity. With instructive interactivity, the consumer is instructed on how to interact with the advertisement, in this case, by characters from the movie. This type of interactivity not only simulates real, face-to-face interaction with the character, it is unique in that the characters from the movie actually introduce themselves, have a conversation with the consumer about the most entertaining aspects of the movie, and discuss how to best experience the advertisement's content. As a result, perceived interactivity can be considered a driver of consumer engagement.

The researcher assumed that perceived interactivity would positively affect ad recall. However results suggest that with regard to recall, there was no significant relationship to perceived interactivity. These findings were similar to that of Sundar (2000), who found that interactivity can actually hinder memory. While contradictory to previous research, (Macias 2003, Keng and Lin 2006, Sundar and Dao 2004 and Li and Bukovac 1999), this could be due to the fact that interactivity tends to surprise the user, which can monopolize cognitive capacity, distracting the user from informational content.

Movie-going behavior, or for the purposes of this study involvement, was thought to be a driver of perceived interactivity. Past research provided that involvement influenced advertising comprehension, (Macias 2003). Similarly, the researcher assumed that those participants who

were avid movie-goers would feel the respective advertisements as more personally relevant and thus interactive. However, similar to the findings of Hwang and McMillan (2002), there was no relationship between involvement and perceived interactivity. The results in this study could be attributed to the fact that respondents did not place much importance on sites such as Yahoo! movies, Fandango, Moviefone, etc. or official movie sites in their decision to see a movie. As a result, respondents did not visit such sites very often and were therefore not familiar with the content or the characteristics of those sites, which might have affected their perception of interactivity.

It is important to note here that perceived interactivity in combination with involvement did positively affect one brand metric in a significant way—intent to purchase. As involvement and perceived interactivity increased, so did intention to see the film. Those participants in the high interactivity/high involvement group reported the highest intention to see the film. This confirms and builds upon previous research on involvement's positive effects on purchase intentions (Hopkins, Raymond and Mitra 2004) as well as interactivity's positive effects on purchase intention (Wu 2000; Yoo and Stout 2001; Chen, Griffith, and Shen 2005). This could be because those more involved surfers were more interested in the movie content, as well as the interactive features of the advertisement. Purchase intention is arguably one of the most important brand metrics. This finding gives insight into how marketers might directly affect a company's bottom line. If advertisers can better determine which consumers are more involved, and make advertisements perceptually interactive to those users, it could result in higher sales.

The researcher was surprised to find the impact click-through to the official *Wild Hogs* website had on the results. While click-through did not affect ad recall, it did have positive effects on attitude toward the message and engagement. Confirming previous research,

(Deighton 1996; Bucy 2004a; Stromer-Galley 2004; Wu 2005; Wang 2006), these findings speak to the impact of user control in an interactive environment. Control is one of the key ingredients to an interactive experience (Steuer 1995); it transforms a casual surfer into an active party integral to furthering the communication process.

Also interesting were the findings that when coupled with perceived interactivity, click-through positively affected engagement. By making advertisements more perceptually interactive to consumers through adding a clickable interface to more information on the product's site, advertisers could build further engagement with their audience and reap a substantial benefit from the advertising.

In summary, this study proved that perceived interactivity can be considered a driver of consumer engagement, through its positive effects on attitude towards the ad, click-through, and intent to purchase. The newly defined form of interactivity, instructive interactivity seems to more deeply affect participants. The findings suggest that interactive advertising designers should be mindful of consumers' perceptions of interactivity when fashioning advertising. However, this can be problematic because the perceptions of consumers can be very fickle.

#### Limitations and Strengths

Because participants were recruited from large undergraduate classes without random sampling, the results of this study may not be generalized to the entire demographic of 18-45. Yet, the research should serve as an informative basis for future studies on interactive, online advertising for movies and other products, as advertisers frequently spend to reach this demographic range.

Another limitation in the present study is the fact that the ad layouts for the high interactivity condition and low interactivity condition were different. This could have negatively affected a



number of metrics, from perceived interactivity, attitude toward the advertisements, mood, etc. Had the ads been laid out identically, the researcher would have been able to rule out any erroneous effects of ad size, ad shape, etc. Additionally, the low interactivity ad was a static advertisement. Clicking through the official *Wild Hogs* website was the only course of action the participant could take in interacting with the ad; there was no other choice for the user. This factor could have skewed the number of unique click-throughs on the part of users who were genuinely interested in clicking through to the official website.

Experiment sessions were conducted over a six-day period, with four sessions in the morning and three sessions in the afternoon. The researcher noticed in the sessions that were closer to midday, there were slower connection speeds, due to more people utilizing the university's network. This caused issues in the experiment as it often prevented users from viewing and interacting with the advertisements, viewing the movie trailer, visiting other websites, etc. This difficulty could have negatively affected participants' perception of the interactivity of the ads, as well as prevented them from gleaning information from the ad, etc. However, it does give real-world insight into problems faced by users utilizing different connection speeds. It should be noted that the sample size (N = 421) compares favorably to previous interactivity research such as Hwang and McMillan's (2002) study (N = 65), Sicilia, Ruiz, and Munuera's (2005) study (N = 213), and Wang's (2006) study (N = 239).

### Recommendations for Future Research

The placement and technologies behind consumer advertising have advanced at an alarming rate. With the advent of next-generation ad vehicles and other new interactive media, and a steadily increasing worldwide online population, the opportunities for further research in this space are endless. Researchers and practitioners agree that interactivity (Bucy, 2004a; Kiouisis,

2002) and engagement (Elliot, 2006) are underdeveloped concepts. It is the responsibility of academics to fill this existing void of study. Because of the similarity in vehicle characteristics, it would be interesting to investigate the comparative effectiveness of interactive advertising in other media, such as console video games and online video games to compare how users' perceptions of interactivity and engagement vary across different media. The researcher was alarmed at the continued finding that interactivity seems to negatively affect ad recall and memory. Future research should be done to further investigate the relationship between the two variables and how to alleviate interactivity's negative affects on recall.

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**APPENDIX:  
ORAL CONSENT FORM**

“Thank you for coming to this study. The study will take approximately 20 minutes and is broken into two parts. First, you’ll be viewing some online advertisements with nine other people for up to 10 minutes. We want you to interact with the ads on the page; specifically, there’s an ad for the movie, Wild Hogs, that I’m interested in your feedback. After the viewing session, you’ll spend about 10 minutes taking a computer-based survey. Your survey results will remain anonymous and cannot be traced back to you in any way. And remember, you must be at least 18 years of age to participate in the study.

You’ll be using the web browser Firefox or Safari to view online ads on Yahoo! Movies. If the advertisements’ content is a problem for you, you have the right to withdraw now or stop participating at any time. I will be able to assist you if you need help with a certain aspect of viewing the ads. If you have any questions after the study is completed, please feel free to contact me at (225) 892-1194, or e-mail me at [jhogga1@lsu.edu](mailto:jhogga1@lsu.edu). For information or questions on studies involving human subjects contact LSU Institutional Review Board Chairman Robert C. Mathews, at 203 B-1 David Boyd Hall, or 225-578-8692. Do you understand the terms of this study? If you need anything explained further, please let me know now. Otherwise, we will begin the session.”

## VITA

Jesse Hoggard was born in Monroe, Louisiana, in 1982. He earned his Bachelor of Arts in mass communication from the Manship School of Mass Communication at Louisiana State University in 2004, with a concentration in advertising.

Before beginning his graduate studies in liberal arts in 2004, Jesse worked as a marketing coordinator two years, for Louisiana State University's Center for Computation & Technology, after an internship there in 2004.

Jesse's research interests include creative innovations in advertising, interactive media, interpersonal communication, and organizational development. He is currently the director of marketing for the Louisiana Art & Science Museum in Baton Rouge.