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The Rochester Institute of Technology

School of Communication

College of Liberal Arts

The Analysis of Consumers' Affective Responses to Brand Presentation, Awareness, and  
Loyalty: A Contemporary Development in Selecting Media Channels

by

Jessica F. McGinn

*A Thesis submitted*

in partial fulfillment of the Master of Science degree

in Communication & Media Technologies

Degree Awarded:

July 25, 2016

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THE ANALYSIS OF CONSUMERS' AFFECTIVE RESPONSES TO BRAND  
PRESENTATION, AWARENESS, AND LOYALTY: A CONTEMPORARY  
DEVELOPMENT IN SELECCING MEDIA CHANNELS

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Master of Science in Communication & Media Technologies

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Abstract

In today's digital age, it is becoming increasingly difficult for advertising professionals to effectively evaluate which media channel will best reach their target audience. This study investigated the differences in self-reported consumer affective responses to brand presentation, brand awareness, and brand loyalty by medium. An experiment was performed to determine if there were differences in brand presentation, brand awareness, and brand loyalty between traditional and digital media advertisements. Statistically significant differences were found between participants' responses to viewing a Facebook-branded business page and a traditional print advertisement.

*Keywords:* advertising, brand presentation, brand awareness, brand loyalty, digital media, social media, traditional media

## The Analysis of Consumers' Affective Responses towards Brand Presentation, Awareness, and Loyalty: A Contemporary Development in Selecting Media Channels

Advertising is a company's primary means of communicating with consumers about product information, brand, and changes in the marketplace (Iacobucci, 2009). Paid media exposure allows a company to create and enhance brand awareness and to persuade consumers to purchase a specific brand. Advertising, like all forms of persuasion, is used to effect a change in consumer beliefs, attitudes, and behaviors. Advertising agencies use advertising as a form of selling a product, service, brand, or position.

Advertising agencies use various media channels to distribute their persuasive messages. Traditionally, these channels have included newspapers, magazines, radio, television, and even billboards. Today, digital media is being used to persuade audiences.

Traditional media channels such as print allow advertising agencies to reach a large audience. The message presentation is uniform and directed to readers in a one-way form of communication. Uniform, one-way communication enhances the control the persuader has in managing how the message will be presented. Advertisers choose which media channel in which to present their advertisements. The messages can be separately crafted to exploit each channel's best advantage. For instance, perceived advantages for print advertisements include message presentation to large-sized audiences in a semi-permanent form, when compared to digital media.

Digital media advances have enhanced the range of channels a persuader has available and they allow advertisers to combine and exploit features true to legacy media (i.e., print as with newspapers, magazines and sound as with radio, and moving images as with television). Digital media hold perceived advantages for message presentation. The content created for digital media can establish an instantaneous two-way communication between consumers and

advertisers (Groom & Biernatzki, 2008). Consumers have the ability to e-mail, instant message, fill out forms and surveys about the company, its website, or products virtually instantaneously. Instant feedback is available for both consumers and advertisers thus increasing consumer communication about brands. The advertising field is experiencing a shift from a product-oriented market to an integrative and consumer-oriented market because of the interactive message presentation on digital media that enhance two-way communication (Groom & Biernatzki, 2008).

Interactivity is widely used to describe the type of communication that happens on digital media (Ferber, Foltz, & Pugliese, 2005). While academic research has not yet been able to pinpoint a cohesive definition of the term, for this study we refer to McMillan's (2002) four-part model of interconnectivity which outlines a more holistic view on the type of communication, both one-way and two-way, that takes place on the Web (see Figure 1) as well as Ferber, Foltz and Pugliese's (2005) revision which builds upon McMillan's (2002) work with the introduction of a three-way, six-part communication model. This model is highlighted in Figure 2 and will be used to further investigate the relationship between interactivity and the type of communication that takes place on digital media. For this study, interactivity will be defined as "the state or process of communicating, exchanging, obtaining and or modifying content and/or its form with or through a medium which responds to both the communicator's and the audience's communication needs by including hypertext links and reciprocal communication" (Macias, 2003, pp. 33-34). Research by McMillan and Hwang (2002), Ferber et al. (2005), and Macias (2003) provide a better understanding of how consumers can interact with websites through the flow of information in both giving or receiving—features which are unique and have yet to be fully available in traditional media such as print, television, or radio.

Social networking sites such as Facebook offer advertising and marketing firms the chance to connect with their audience and interact with brands in a way that was previously unavailable. Social networking sites are a special case for digital media where interactivity is possible, indeed emphasized and expected.

Facebook is a popular social networking site with a substantial number of users. It has been reported that Facebook had 1.65 billion users in the first quarter of 2016 (Statista, 2016). “Millions of people use Facebook everyday to keep up with friends, upload an unlimited number of photos, share links and videos, and learn more about the people they meet” (Facebook, February 2004). The site is complex and includes photo hosting, video hosting, sharing information, Facebook chatting (instant messaging), game applications, social groups, and sites for organizational charity causes. The feature of interactivity presented on Facebook is hypothesized by scholars as the reason people go to social networking sites. People want to be active and have the ability to share comments on walls, photographs, and videos. The present study used Facebook as a case study to test digital media’s unique interactive capability to influence a large audience. Traditional and digital media each have specific advantages, and this study sought to determine what differences there were by medium and self-reported affective responses to brand awareness and brand presentation on each.

Brand is defined by Chaudhuri and Holbrook (2001) as specific versions of particular product classes. Brand awareness and loyalty are important variables for advertising agencies. Brand awareness is defined by Hoyer and Brown (1990) as a consumer’s basic level of brand knowledge that includes, at least, recognition of the brand name. It is the lowest level of brand knowledge that an agency expects for its products. Brand loyalty is defined as a consumer’s commitment to repurchase a preferred product or service consistently despite other influences



and marketing efforts from competitors (Chaudhuri & Holbrook, 2001). Awareness followed by loyalty are the two stages of consumer behavior that advertisements aspire to provoke.

When choosing which channel to advertise through, persuaders need to understand what differences there are by medium and consumers' self-reported affective responses to brand presentation as well as the differences in brand awareness and brand loyalty. Advertising agencies hope the creation of messages presented through different channels can provoke a sense of brand awareness and brand loyalty with their audience.

### **Research Questions**

1. What differences are there by medium and self-reported affective responses to brand presentation?
2. What differences are there by medium and self-reported affective responses to brand awareness?
3. What differences are there by medium and self-reported affective responses to brand loyalty?

### **Rationale**

#### **Personal**

As a professional working in public relations, and an early adopter of social networking sites, it surprises me that scholarly research has not taken the opportunity to effectively evaluate the interactivity presented on such sites. Advertising and marketing research is full of self-reported analysis on consumer choices, behaviors, and effects and yet, at the time of this study, advertisers were not taking advantage of such a large number of users on social networking sites. Job positions have been created for social media personnel to represent companies and interact with customers on sites such as Facebook, YouTube, LinkedIn, and Twitter. As a professional who has worked in the communications space for more than five years, I seek a better understanding of how to interact with consumers, and this experiment will help me explore the

options in doing so. To become an expert in one's field of study begins with research, and this study will provide me a better understanding of digital media channels and what opportunities lie ahead.

### **Social**

Kiousis (2002) explains that the ongoing influx of new communication technologies has led many traditional concepts of mass communication to be redefined, reworked, and reinvented. Advertising practitioners have a vast population of over 1.09 billion daily active users on Facebook to reach and connect via their profile pages (Statista, 2016). Coyle and Thorson (2001) explain that the demand for a greater knowledge about how to create better brand presence online is increasing. Advertising practitioners need to understand the differences in traditional media and digital media channels in order to better manage the broad spectrum of planned and unplanned communication about the company's products and services (Duncan & Moriarty, 1998). Digital media change the relationship between producers and consumers by creating easier perceived communication, and advertisers need to begin to understand what advantages the digital media channels offer (Coyle & Thorson, 2001). Macias (2003) explains that as advertising channels continue to diversify, it will become important that advertisers expand their knowledge of their effects on consumers.

### **Scholarly**

Advertising and marketing research are full of conceptual and empirical studies that have focused on traditional versus digital media channel effects on consumers. The advertising field still does not have a complete understanding of consumer responses towards digital media channels and the persuasiveness of this communication process (Sicilia, Ruiz, & Munuera, 2005). According to McMillian and Hwang (2002) the distinct interactive attribute presented on

digital media needs more advertising and marketing research in order to produce a conclusive definition. This study aims to provide a deeper understanding of media channels, both traditional and digital, so that companies can identify and manage better brand communication that determines the quantity and quality of the company's brand relationships. Interactivity research has been sparse and relatively inconclusive, which results in a gap between advertising and marketing research (Liu & Shrum, 2002).

The popularity of social networking sites has led to news coverage of them along with academic research. Previous research on social networking sites focused on privacy, social capital, relationship building, site maintenance, role of identity, expression, and behavior (Hargittai & Walejko, 2008). Researchers are also trying to understand how and why social networking sites have become popular and the effects they have on people's lives. The academic study of digital media channels and advertising on them present many opportunities. The current study will contribute to the gap in advertising and marketing research by introducing interactivity and its relation to the use of digital media channels. The research investigates differences by medium in brand presentation as well as providing an advance understanding of the differences in self-reported, affective responses to brand awareness and loyalty.

## **Review of Literature**

### **Traditional versus Digital Media**

Traditional media channels present an advertising agency's message in a linear form that allows a consumer to be passively exposed (Bezjian-Avery, Calder, & Iacobucci, 1998). Digital media channels allow for interactive advertising where the consumer actively navigates through messages presented (Bezjian-Avery et al., 1998). The linear flow of traditional advertising that is presented on television and in print sets it apart from the design of interactive systems. Because

of this, traditional advertising and media channels are experiencing a radical change (Berte & DeBens, 2008).

Advances in digital media have increased the number of advertising channels available (Berte & Bens, 2008). According to Berte and Bens (2008) digital channels are growing and gaining importance at the expense of traditional media that have long relied on advertising investments for existence. Digital media and traditional media are different in that digital media offers a virtually unlimited amount of information delivered beyond time and space, virtually unlimited amounts and sources of information, and the ability to target specified groups of individuals (Sung-Joon & Joo-Ho, 2001). This review of related literature found that the most important difference between traditional and digital media is the feature of interactivity.

### **Digital Media Interactivity**

Digital media allow users to actively control and interact with information and people, respectively. Active control allows the consumer to visit a website and control the flow of information from one area to the next. Traditional media do not allow users to actively control the process of information, but the web allows its users to seek out content and navigate through the content (McMillan & Hwang, 2002). Online interactivity presents communication in different contexts instantaneously while allowing consumers the opportunity to control the flow of information from one area to the next.

The ability to facilitate two-way communication is an important element of interactivity online. Traditional media now incorporate two-way communication with users via their online versions. In the early establishment of online shopping, web browsing users were uneasy about the one-way communication presented. McMillan (2002) identifies *monologue* and *feedback* as forms of one-way communication that are most widely seen on corporate websites (see Figure

1). Monologue offers limited involvement from viewers with sources publicizing information to a wide audience. While McMillan (2002) describes feedback as mostly one-way-communication, it does allow for some participation with no guarantee of a response (i.e., e-mail links on a website). McMillan (2002) says *responsive dialogue* is a good example of two-way communication in that it allows for an exchange between two parties while control remains with the sender. *Mutual discourse* occurs when the receiver has control while both parties send and receive messages in a two-way conversation. Chatrooms, forums, and bulletin boards are examples of mutual discourse presented by McMillan (2002).

Today the Internet has changed to make two-way communication almost instantaneous in that consumers can now leave feedback to companies through e-mails, instant messages, or blogs and forums (Liu & Shrum, 2002). While McMillan (2002) stopped at a four-point approach to interactivity, Ferber et al. (2005) introduced a three-way model of communication by establishing a difference between interpersonal and public communication (see Figure 2). They define three-way communication as allowing “an unknown and yet-to-be-identified party to receive the message, thus making it a publication” (pp. 393). Three-way communication best highlights the type of interaction that happens on digital media because it accounts for both a *controlled response* as well as *public discourse* (Ferber et al., 2005). Controlled response allows for the site to maintain control over content posted by users. Public discourse allows the site to have almost no control over user’s content, but Ferber et al. (2005) note that site control can be limited to removing libelous, obscenity, or other harmful content from users. Today’s digital media sites such as Facebook, LinkedIn, and Twitter facilitate the type of three-way communication outlined in Ferber et al.’s (2005) six-part model of cyber-interactivity. Facebook, LinkedIn, and Twitter monitor users’ content but only remove content if it is deemed libelous,

obscene, or harmful to its community of users which is outlined by the definition of public discourse in Ferber et al.'s (2005) research. Combining this type of engagement with two-way communication allows marketers to generate positive word-of-mouth for their company (McMillan & Hwang, 2002). Building positive word-of-mouth can strengthen relationships and trusts between advertisers and consumers. Trust is created through positive feedback and positive word-of-mouth being relayed to the consumers.

Traditional media provide fewer channels for consumer input and have limitations with the time between sending and receiving a message (Liu & Shrum, 2002). Synchronicity is referred to by Liu and Shrum (2002) as the level of user input into communication interaction and the degree to which the responses they receive are simultaneous. The instantaneous communication allowed by the Internet makes it much more synchronized (Liu & Shrum, 2002). Creating a site that maintains its responsiveness in a timely manner is recognized by Liu and Shrum (2002) as an important factor in positive interactivity in an online experience. Creating positive interactive websites that will generate more audience awareness online is dependent on how well marketers can facilitate active control, communication, and synchronicity.

Schlosser, Mick, and Deighton (2003) studied how consumers process information about a product that is presented through online interactive media. They wanted to know if there were benefits to presenting product information through a virtual interaction or object interactivity such as aesthetic experiences (browsers) and images. The study found that the object interactive site produced higher purchase intentions than did the passive site, regardless of the users' goals. Image processing was found to play a large role in purchase intentions as well as the ability to manipulate the product rather than just plain text. Allowing consumers to interact with brands

and products creates a more vivid mental picture of how the brand or product will benefit the consumer.

### **Establishing Brand Awareness**

Iacobucci (2009) believes that brands have a value above and beyond the benefits of the product itself. The brand is used in order to communicate information about the company or product to the consumer. According to Iacobucci (2009) the “U.S. Patent and Trademark Office will issue more than 100,000 new brands each year” (pp. 66). These new brands increase competition and present advertising challenges to creating brand awareness and loyalty. A brand is created through a name and image advertised through media which creates a portfolio of qualities associated with the name (Iacobucci, 2009). The company controls the brand’s image along with what and how the brand communicates to the consumer (Iacobucci, 2009).

Consumer awareness of the brand represents the lowest form of brand knowledge. The knowledge ranges from the simple recognition of the brand’s name to a higher cognitive structure based on more detailed information (Hoyer & Brown, 1990). According to Campbell, Keller, Mick, and Hoyer (2003) brand-awareness can influence consumer processing and stages of familiarity. The process of perceiving a brand that was formerly encountered is regarded as recognition by Hoyer and Brown (1990), although recognition and awareness are hard to distinguish.

Prior to the widespread use of the web, Hoyer and Brown (1990) analyzed research which suggested that consumers in purchasing situations tended to be passive recipients of product information and spent minimal time and effort in choosing brands. Consumers may choose a brand because of familiarities based on family or friends who have used the product, advertisements or marketing communication in the media, or even the packaging of the product

(Campbell, Keller, Mick, & Hoyer, 2003). Awareness typically results from advertising exposure and information sources (Hoyer & Brown, 1990). According to Campbell et al. (2003) brand awareness captures brand associations that exist in the consumer's memory. Familiar/unfamiliar brands are different in terms of the knowledge the consumer has regarding the brand. Familiar brands have a variety of different types of associations with consumers.

Consumers gain familiarity with a brand through repeated exposure where perceived risks tend to decline (Hoyer & Brown, 1990). Familiarity with a product can lead to greater intent to purchase and is recognized as the level of awareness a consumer has on a brand. Unfamiliar brands have a lack of association because of a lower level of awareness. Advertising agencies hope to create a level of awareness about product brands in order to achieve repeat customers and create a sense of loyalty with their consumers.

### **Creating Brand Loyalty**

Reputations are built through advertising efforts, and the goal is for corporate brands to create a reliable product for their consumers (Iacobucci, 2009). Consumers like the reassurance of a brand because it makes the decision process much easier and there is less risk involved with the purchase choice (Iacobucci, 2009). A brand that is marketed well can create loyalty in repeat customers who buy familiar, reliable brands (Iacobucci, 2009). The less risky a brand seems, the easier the brand choice, the higher the brand-loyalty, and the greater likelihood of repeat purchases.

Brand loyalty is a concept that advertisers strive for in their company's relationships with consumers. Consumers who are brand loyal are typically willing to pay more for a brand because they appreciate the distinctiveness of the brand that competitors cannot provide (Chaudhuri & Holbrook, 2001). Trust and loyalty are two concepts that are repeated throughout brand-



consumer relationship research. Chaudhuri and Holbrook (2001) found that brand loyalty can lead to greater market shares for companies when consumers repeat purchases and develop a reliable trust in the brand. Raj (1985) found that brands with a larger market share of users have a larger percentage of loyal buyers. A company with a positive brand image has a larger advertising expenditure and can spread out advertising costs over different media channels while reaching a larger audience (Raj, 1985).

As with interpersonal relationships, brand loyalty and trust are two components considered important in relational exchanges (Chaudhuri & Holbrook, 2001). According to Chaudhuri and Holbrook's (2001) research, building brand loyalty leads to reduced market costs, greater trade leverages, increased interpersonal relationships, favorable consumer word-of-mouth, and increased resistance to competitors' marketing strategies. Chaudhuri and Holbrook (2001) call for future use of this research to justify expenditures on design, communication, and merchandising strategies that will create greater brand loyalty and long-term effects on consumer's loyalty.

## **Method**

### **Population Sample**

A convenience sample of 65 college students from the Rochester Institute of Technology (RIT) participated in this study during the fall quarter of 2010. Each class was randomly assigned to analyze either condition one, a Facebook business page for Reebok, or condition two, print advertisements for Reebok (see Appendix A and B). Randomization of the subjects to the treatment of the experiment helped to minimize a threat to internal validity. Participating students ranged from freshmen to senior status at RIT and included 49 women and 16 men.

### **Instrument Design**

Participants took part in an experiment where they viewed either condition one (a Facebook business page for Reebok) or condition two (print advertisements for Reebok). After they reviewed their assigned condition, participants reacted to statements soliciting their responses to Reebok brand's presentation, awareness, and loyalty.

Participants viewing the first condition saw a mock-website similar to a Facebook business advertisement for Reebok shoes (see Appendix A). The mock-website included all of the interactive features present on a Facebook business advertisement. The interactive features included a wall (for posting comments, images, and videos), information page (company website, mission, and general information about the company), photographs, videos, and a YourReebok where visitors could design their own product. Participants viewing the second condition saw a series of print advertisements from Reebok shoes that ran between 2009 and 2010. Convenience samples of print advertisements were chosen (see Appendix B).

The Reebok brand, a subsidiary from Adidas Corporation, was chosen as the product for this particular experiment. Reebok is recognized globally as a creative brand for a simple, well-understood product. Reebok is categorized as a sports and lifestyle product for both men and women. The Reebok brand is not dominantly advertised through a single media channel, but through multiple channels. This makes Reebok an appropriate brand to be used in this experiment because it is actively advertised through print and social media sites like Facebook. This study used the Reebok brand to test it in two manipulated conditions of a digital media advertisement on Facebook and a traditional print advertisement.

## **Procedure**

The experiment took place on the RIT campus in classrooms that were randomly assigned to a condition based on a computer-generated list. Subjects were introduced to the

experiment through an oral message by the researcher (see Appendix C). The introduction included the experimental nature, services that were or were not available, means by which assignment to treatments/conditions were made, and information if they chose not to participate or withdrew after beginning the experiment (Reinard, 2008). All materials were submitted to Institutional Review Board (IRB) for consent before implementing the experiment.

Subjects were then given details about the procedure and how to navigate through the experiment. If assigned to condition one (Facebook) subjects were asked to view the mockup on a computer followed by a series of statements that measured brand presentation, awareness, and loyalty. If assigned to condition two (print advertisements) subjects read through the handout of Reebok print advertisements followed by the same series of statements that measured brand presentation, awareness, and loyalty. The experiment ended with a few demographic questions (see Appendix G) and a debriefing. The debriefing followed IRB consent rules and information on how to contact the researcher and find the results from the study (see Appendix H). The procedure was as follows: introduction to the experiment, presentation of one of two conditions, variable measuring, demographic questions, and a debriefing from the administrator.

### **Measurement Scales**

Three variables were tested in this experiment to address the proposed research questions. Brand presentation (variable one) and brand loyalty (variable two) were measured by a seven-point semantic differential scale of bipolar responses while brand awareness (variable three) was measured through a seven-point Likert scale. Semantic differential scales are used to measure the meaning of an object to an individual (Miller & Salkind, 2002). Likert scales are used to measure the subject's agreement or disagreement about a service or product. Both scales will allow for an accurate measure of brand presentation, loyalty, and awareness proposed in this study.

**Brand presentation.** In order to accurately measure affective responses to brand presentation, the subjects were asked to rate the given advertisement condition on a series of seven-point bipolar ratings. The respondents were introduced to this scale with the introductory statement: “You just viewed an advertisement from Reebok shoes. Below is a series of adjective pairs for you to use judgment about the Reebok advertisement by circling one number for each adjective pair between 1 and 7.” The scale ranges were as follows: not persuasive/persuasive, unappealing/appealing, bad/good, unattractive/attractive, not clear/clear, unconvincing/convincing, simple/complex, overall disliking/overall liking. The scale (see Appendix D), was adapted from Bezjian-Avery et al. (1998). This allowed for an accurate measure of the subject’s evaluation of brand-presentation by rating the individual’s perception of the advertisement itself and comparing the results. Subjects circled the best response and moved onto the next question.

**Brand awareness.** Brand awareness measurements were adapted from Sicilia et al. (2005), who used a seven-point Likert scale, anchored by strongly agree/strongly disagree, to measure subjects’ brand awareness. The instrument was based on a series of statements relating to product knowledge. The subjects were told: “Next, we would like you to indicate how much you agree or disagree with the four statements presented below. Please circle the one number that best indicates how much or little you agree with each statement,” (see Appendix E). The range of statements were as follows: “I feel very knowledgeable about this product,” “If a friend asked me about this product, I could give them advice about different brands,” “If I had to purchase this product today, I would need to gather very little information in order to make a wise decision,” and “I feel confident about my ability to tell the difference in quality among different brands of this product.” Comparing the subject’s knowledge of the product after viewing one of the two

conditions allowed for an accurate measure of brand awareness differences between the two conditions.

**Brand loyalty.** Brand loyalty was the last variable measured. According to Mellens, Dekimpe, and Steenkamp (1996) measuring brand loyalty consists of behavioral or attitudinal measurements. Deciding between measuring behavioral or attitudinal depends on the research study's intentions (Mellens, Dekimpe, & Steenkamp, 1996). This study measured attitudinal responses of purchase intentions and commitment because of the specific advantages for the affective response intentions. The advantages of using attitudinal measuring include the ability to separate repeat buying from brand loyalty, being less sensitive to short-run fluctuations, and having an easier method for subjects to pick the right decision unit (Mellens et al., 1996). This study concentrated on evaluating subjects' affective responses to brand loyalty differences by medium. Measuring purchase intentions and commitment through brand-orientation allows for an accurate measure of stated purchase intentions/preferences and commitment measures. A three-item, semantic differential scale of bipolar responses was used to measure purchase intentions from the following dimensions: probable/improbable, likely/unlikely, and possible/impossible in relation to the introductory statement of: "Thinking only about Reebok, please make a choice about your likelihood of purchasing the brand by circling one number between 1 and 7 for each of these dimensions." The dimensions were influenced by Coyle and Thorson (2001) while the statement was created by the researcher (see Appendix F). To further investigate brand loyalty based on purchasing decisions, participants were asked, "Thinking about the likelihood to purchase, what is the percentage at which you would buy the Reebok brand?" Participants then provided the percentage at which they would buy with zero meaning

there's no chance they would buy Reebok and 100 meaning they were certain to purchase Reebok (see Appendix F).

Commitment was measured through the use of a brand-oriented measure of the number of subjects committed to the brand, or the mean level of commitment being computed. Commitment to the brand can be measured by the extent to which subjects will recommend the brand to others (Mellens et al., 1996). The subjects were asked to respond to an introductory statement adapted by Machleit and Wilson (1988). The statement was: "Suppose a friend called you last night to get your advice on his/her search for a sneaker. Would you recommend that she/he buy a Reebok sneaker? Rate your likelihood of recommending Reebok to your friends by circling one number between 1 and 7 for each of these dimensions." Subjects were then asked to circle a dimension: probable/improbable, likely/unlikely, possible/impossible (see Appendix F), again influenced by Coyle and Thorson (2001). Measuring purchase intentions and commitment through a three-point semantic differential scale and an open-ended question allowed for easy interpretation and collection of data on brand loyalty.

### **Demographics**

The procedure ended with typical demographic questions of subject's age and sex (see Appendix G) as well as the debriefing statements (see Appendix H).

### **Analysis**

A total of 65 participants completed the experiment. Of the 65 participants, 49 were women and 16 were men. An independent samples *t*-test and a Mann-Whitney *U*-test were used to analyze significant relationships between the two conditions and the three variables being tested: brand presentation, brand awareness, and brand loyalty. Participant responses to brand

awareness differed significantly by condition. Although additional differences by condition were found between brand presentation and brand loyalty, they were not statistically significant.

Research question one asked, “What differences are there by medium and self-reported affective responses to brand presentation?” As we outlined in the measurement section, brand presentation was measured through a seven-point semantic differential scale. Within the scale, participants were asked to rate between one and seven their judgment about the Reebok advertisement (see Appendix D). While statistically significant results were not found as it relates to the research question, results did indicate that there was a statistically significant difference between the mean rating for male and female on clarity ( $t = -2.237, p = .029$ ), whether the advertisement was convincing ( $t = -2.047, p = .045$ ), and the participant’s overall liking ( $t = -2.002, p = .050$ ).

Research question two asked, “What differences are there by medium and self-reported affective responses to brand awareness?” Testing product knowledge after viewing condition one and condition two through a seven-point Likert scale, anchored by strongly agree/strongly disagree, was used to measure brand awareness. Analyzing the data with a Mann-Whitney  $U$ -test revealed a statistically significant difference between subjects’ responses to Facebook (condition one) and the print advertisements (condition two). Facebook and print differed significantly regarding advice about different brands ( $U = 373.5, p = .037$ ). Facebook scored higher with a median of 38.12 as compared to 28.88 for print. In other words, the respondents reported they were less knowledgeable after viewing the Facebook condition. Additional correlations were not found as it relates to the research question presented, but statistically significant results were found between participants’ year born and responses to whether they felt confident in their ability to tell the difference in quality among different brands of this product after viewing the

advertisement ( $r = -.249, p = .045$ ). Age was negatively correlated with confidence. In other words, the younger the respondent, the more confidence s/he reported.

Research question three asked, “What differences are there by medium and self-reported affective responses to brand loyalty?” Using purchase intentions and commitment as a measure of brand loyalty for this experiment, the results did not produce statistically significant results as it relates to the research question presented. One can speculate that the lack of statistically significant results around brand loyalty could be due to the timeframe presented in this study. Participants in this study reviewed the brand advertisement once, in a short period of time, and provided responses to a series of questions where brand loyalty is traditionally built over a longer period of time. While differences by sex are not significant for the research questions proposed, highly significant differences were found by gender when participants in this study were asked how likely they were to purchase the brand ( $t = .175, p = .006$ ).

### **Discussion**

After a careful review of related literature, it is apparent that traditional media and digital channels have distinct attributes. Persuaders need to learn how to craft their messages relative to the advantages and disadvantages of each media channel. Traditional media channel studies emphasize a linear model of communication while digital media is gaining support for its interactive and engaging features. The conclusion of this study found that those viewing brand business pages on Facebook elicit stronger brand awareness compared to traditional forms of advertising in print publications.

Brand awareness is the lowest form of brand knowledge, or the first achievement for advertisers in persuading a consumer audience. As discussed in the literature review section, familiarity with a product can lead to greater intent to purchase. The statistically significant



findings in this study indicate that digital media channels, such as Facebook, can produce greater brand awareness for advertisers. Although few statistically significant results were found as it relates to the research questions presented, results around correlations with age and sex could be addressed in future research. In addition, the timeline of such a study could be lengthened to test differences in brand loyalty. As stated in the analysis, we could presume that longer exposure to a brand could create a stronger sense of loyalty. Future research could build upon this study's results as it relates to brand loyalty. Questions for future research, include: What generational differences are there by medium? What differences are there between men and women by medium? What differences are there by medium in message penetration? What differences are there by medium in likelihood to purchase?

### **Limitations and Strengths**

If this study were implemented today, there would be a few limitations and strengths to consider. Given the sample size is based on 65 RIT students, future research should consider a wider and more diverse sample. The data collected were self-reported and affects the validity of the study as subjects' report of attitude or feelings may not coincide with their actions or behaviors.

The experiment design is an appropriate strength of this research study. The use of semantic-differential scales based on attitudinal analysis allows the researcher to focus on the experimental variables without other confounding variables. Repeat buying can be confused with brand loyalty, but by using an attitudinal measurement for brand loyalty with a semantic differential scale, Mellens et al. (1996) report that it separates the two variables. Nuisance variables were controlled by having the researcher regulate the flow of the procedure and limit outside interruptions. This study's strength is in creating a smaller gap in advertising and

marketing research on media channel differences. Future research should be conducted to address these limitations and strengths to ensure a more comprehensive research study.

### **Future Research**

The review of related literature was accompanied by many questions for further research on digital media channels' unique use of interactivity in comparison to traditional channels. With progress being made in understanding and defining interactivity within scholarly research, there is still work to be done in further evaluating the concept as the digital media landscape evolves. Social networking sites offer a unique environment where interactivity is expected. Using this study's results and the findings of previous studies, more in-depth research can be done to provide advertisers insights by medium. Future research on social networking sites like Facebook should be conducted in order to strengthen the scholarly and social understandings of how to appropriately craft persuasive messages based on the advantages or disadvantages of each medium, especially by sex and age.

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## Appendix A: Condition 1



### Facebook Advertisement

The screenshot shows a Facebook page for Reebok. The top navigation bar includes the Facebook logo, Home, Profile, Friends, and an Inbox with 69 notifications. The user's name, Kristen Curtze, and links for Settings and Logout are visible. A search bar is located on the right. The Reebok page header features the brand name, a 'Become a Fan' button, and tabs for Wall, Info, Photos, Boxes, Video, and YourReebok. On the left sidebar, there is a 'Suggest to Friends' button, an 'Information' section stating the brand was founded in 1895, and a 'Fans' section showing 6 of 93,107 fans with small profile pictures. Below this is a 'Reebok Women' section. The main content area displays a video post from Reebok dated Feb 3, 2010, at 9:47am, with a length of 0:30. The post has 38 likes and a comment from Gurpreet Singh Reebok. Below the video is a text post congratulating Reebok NFL athletes named to the Pro Bowl, listing names like Peyton Manning, Philip Rivers, and Maurice Jones-Drew. To the right, there are two advertisements: one for Adobe Flex, a Java development framework, and another for Counseling Psychology, offering an online doctorate program.

Appendix B: Condition 2

Print Advertisements

# TO LOWER THE RIM JUST FLIP THE SWITCH.

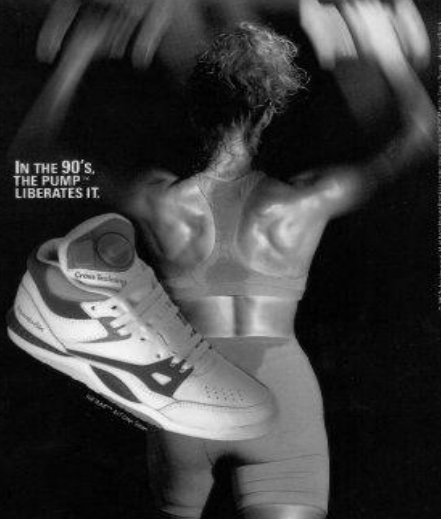



It's just above your heel. A two-way valve that regulates the flow of air through THE PUMP™ dual chamber system in Reebok's newest basketball shoe. Turn it to the left and fill the upper chamber for custom support. Switch to the right to fill the footbed chamber for custom cushioning. Then just add your two feet to fill your opponent with fear.

**LIFE IS SHORT. PLAY HARD.**  
Reebok

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IN THE 90'S,  
THE PUMP™  
LIBERATES IT.



Back in the 90's, the Pump™ basketball shoe was known for its performance. Today, the Pump™ basketball shoe has changed. It's now available in a women's specific design. With its unique design and air chamber system, it's now available in a women's specific design. It's now available in a women's specific design. It's now available in a women's specific design.

Reebok  
It's time to play.



# "THE THREE MOST IMPORTANT GRIPS IN TENNIS."

—Michael Chang

"On the fore, I've got to be able to count on basics like the power from my forehand grip. And the control from my backhand grip."

"I've also got to be sure that my feet have the support they need. So I wear THE PUMP™ tennis shoes from Reebok. You see, I want shoes that protect me when I cut back, and help reduce the worry of foot or ankle injuries. So I wear the best tennis shoe I can get. THE PUMP™ from Reebok."

same performance from the shoes in our Court Victory Collection featuring THE PUMP™ technology that's taken Michael to the top. As well as durable Inlay 500™ outsoles, lightweight Hanelle™ cushioning, and moisture absorbing Coolmax™ linings. So check out the new Court Victory Collection today and start getting a grip on your game."



© 1997 REEBOK INC. A REEBOK GROUP COMPANY. ALL RIGHTS RESERVED. THE PUMP™ AND COURT VICTORY™ ARE REGISTERED TRADEMARKS OF REEBOK INC. IN THE U.S. AND OTHER COUNTRIES. THE PUMP™ AND COURT VICTORY™ ARE REGISTERED TRADEMARKS OF REEBOK INC. IN THE U.S. AND OTHER COUNTRIES.

**EASYTONE™**

**TONES**  
KEY LEG MUSCLES

EasyTone uses balance pods in the shoes to create natural instability, much like walking on a sandy beach, which encourages coming through increased muscle activation in 3 key areas of the leg.

The best part is that EasyTone works while you walk the dog, walk down the aisle, country line dance, chase after a ball, do the walk of shame...actually, when doesn't EasyTone work?

FOR MORE TECHNICAL INFORMATION ▶

SHOP EASYTONE™ SHOES ◊

360° VIEW ▶

**28%**  
GLUTEUS MAXIMUS

**11%**  
HAMSTRINGS

**11%**  
CALVES

**Reebok**

**Reebok**  
EASYTONE



## Appendix C: Introduction of Experiment

### Consent Form

Researchers in the Department of Communication Studies are interested in people's perceptions of advertisements on different media channels. I am here today to have you participate in a study designed to gather information in these areas. Your participation in this study would be greatly appreciated; however participation is **entirely voluntary**.

There are some things about this study you should know. You will be first asked to view an advertisement then answer survey questions. This survey has no anticipated harms, discomforts or inconveniences.

There are no anticipated risks beyond ordinary survey responses.

Not everyone who takes part in this study will benefit. A benefit means that something good happens to you. We think these benefits might be to gain a deeper understanding of media channels, traditional and new, so that companies can identify and manage better communication with their consumers.

When we are finished with this study we will write a report about what was learned. This report will not include your name or that you were in the study.

You do not have to be in this study if you do not want to be. If you decide to stop after we begin, that's ok too.

If you decide you want to be in this study, please sign your name.

I, \_\_\_\_\_, want to be in this research study.

\_\_\_\_\_  
(Sign here)

\_\_\_\_\_  
(Date)

If you have any questions about the study or comments please contact:

Jessica Fuller  
105 Selborne Chase  
Fairport, NY 14450  
607-745-5552  
[Jessicafuller4387@gmail.com](mailto:Jessicafuller4387@gmail.com)

## Appendix D: Dependent Variable

**Measuring Brand Presentation**

You just viewed an advertisement from Reebok shoes. Below is a series of adjectives pairs for you to use judgment about the Reebok advertisement by CIRCLING one number for each adjective pair between 1 and 7.

<b>Not Persuasive</b>	1	2	3	4	5	6	7	<b>Persuasive</b>
<b>Unappealing</b>	1	2	3	4	5	6	7	<b>Appealing</b>
<b>Bad</b>	1	2	3	4	5	6	7	<b>Good</b>
<b>Unattractive</b>	1	2	3	4	5	6	7	<b>Attractive</b>
<b>Not Clear</b>	1	2	3	4	5	6	7	<b>Clear</b>
<b>Unconvincing</b>	1	2	3	4	5	6	7	<b>Convincing</b>
<b>Simple</b>	1	2	3	4	5	6	7	<b>Complex</b>
<b>Overall Disliking</b>	1	2	3	4	5	6	7	<b>Overall Liking</b>

Appendix E: Dependent Variable

**Measuring Brand Awareness**

Next, we would like you to indicate how much you agree or disagree with four statements presented below. Please CIRCLE the one number that best indicates how much or little you agree with each statement.

	Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree
I feel very knowledgeable about this product.	1	2	3	4	5
If a friend asked me about this product, I could give them advice about different brands.	1	2	3	4	5
If I had to purchase this product today, I would need to gather very little information in order to make a wise decision.	1	2	3	4	5
I feel very confident about my ability to tell the difference in quality among different brands of this product.	1	2	3	4	5

Appendix F: Dependent Variable

**Measuring Brand Loyalty**

Thinking ONLY about Reebok, please make a choice about your likelihood of purchasing the brand by CIRCLING one number between 1 and 7 for each of these dimensions:

<b>Very Probable</b>	1	2	3	4	5	6	7	<b>Improbable</b>
<b>Very Likely</b>	1	2	3	4	5	6	7	<b>Unlikely</b>
<b>Very Possible</b>	1	2	3	4	5	6	7	<b>Impossible</b>

Thinking about your likelihood to purchase, what is the percentage at which you would buy the Reebok brand? Please fill in your percentage, zero meaning there's no chance you'd buy Reebok and 100 meaning you are certain to buy Reebok.

\_\_\_\_\_ %

Suppose a friend called you last night to get your advice on his/her search for a sneaker. Would you recommend that s/he buy a Reebok sneaker? Rate your likelihood of recommending Reebok to your friends by CIRCLING one number between 1 and 7 for each of these dimensions:

<b>Probable</b>	1	2	3	4	5	6	7	<b>Improbable</b>
<b>Likely</b>	1	2	3	4	5	6	7	<b>Unlikely</b>
<b>Possible</b>	1	2	3	4	5	6	7	<b>Impossible</b>

## Appendix G: Demographics

The following two questions allow the researcher to know some demographic statistics about the sample population. Please CIRCLE A or B for questions 1 and WRITE your birth year for question 2.

1. What is your sex?
  - a. Male
  - b. Female
  
2. In what year were you born? \_\_\_\_\_

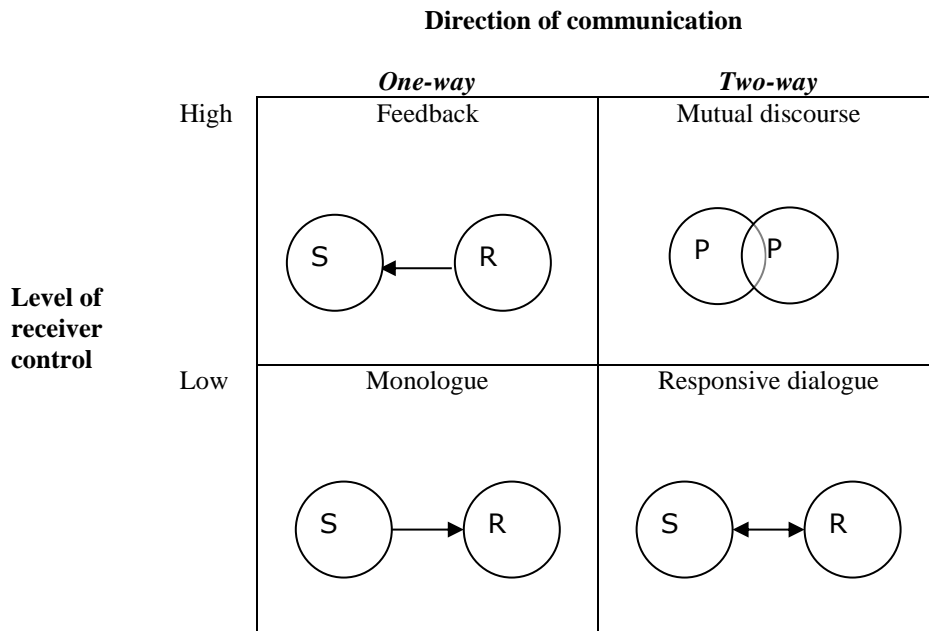
## Appendix H: Conclusion

### **Debriefing Experiment**

This concludes the study. Thank you very much for participating in this research. If you have any questions regarding this study or learning the results, please e-mail or call Jessica Fuller using the contact information on the Consent Form.

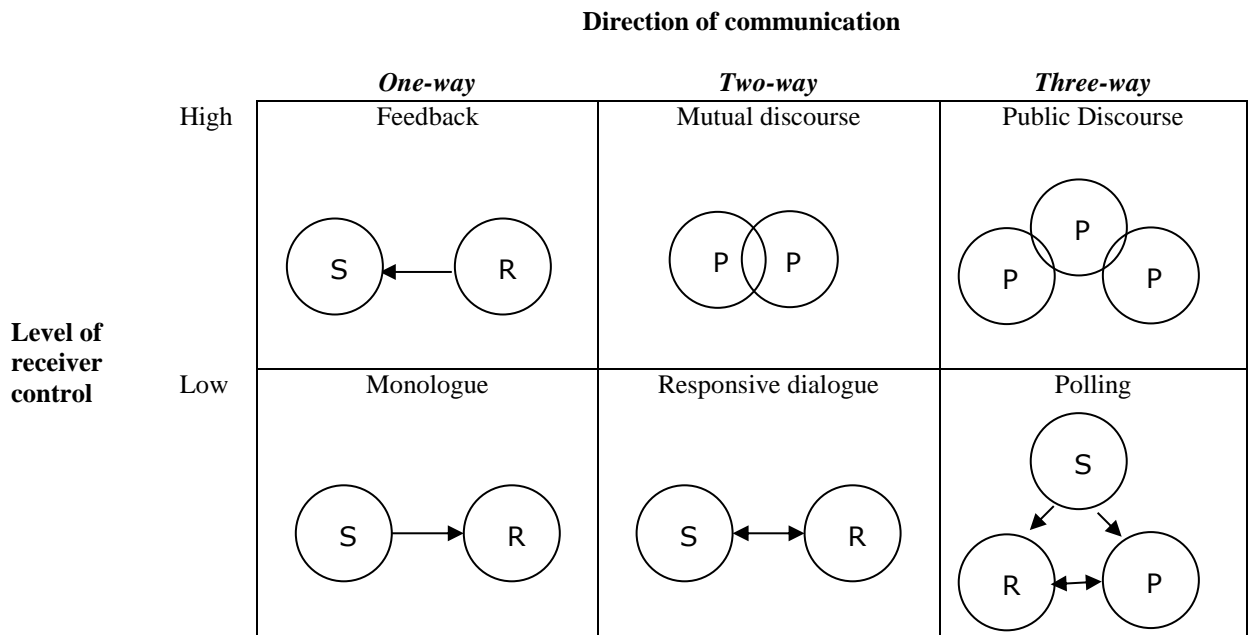
Thank you again for your cooperation.

**Figure 1: McMillan’s four-part model of cyber-interactivity**



S = sender, R = receiver, P = participant (sender/receiver roles are interchangeable)

**Figure 2: Ferber, Foltz, and Pugliese’s six-part model of cyber-interactivity**



S = sender, R = receiver, P = participant (sender/receiver roles are interchangeable)