Information and Culture: Cultural Differences in the Perception and Recall of Information from Advertisements

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INFORMATION AND CULTURE:
CULTURAL DIFFERENCES IN THE PERCEPTION AND RECALL OF INFORMATION FROM ADVERTISEMENTS

By

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TABLE OF CONTENTS

List of Tables .......................................................................................................................... vii
List of Figures ........................................................................................................................ viii
Abstract ..................................................................................................................................... ix

CHAPTER ONE: INTRODUCTION ..........................................................................................1
   Background of the Study ......................................................................................................1
   Statement of the Problem ....................................................................................................2
   Overview of the Study .........................................................................................................3
       Rationale for the Study ..................................................................................................3
       Theories .........................................................................................................................4
       Research Questions .....................................................................................................5
       Hypotheses ....................................................................................................................5
   Summary of the Study .........................................................................................................8
   Method ................................................................................................................................9
   Summary of the Chapter ....................................................................................................9

CHAPTER TWO: REVIEW OF LITERATURE ..........................................................................10
   Culture ..................................................................................................................................10
       Cultural Models ...............................................................................................................11
           Hofstede’s cultural dimensions ....................................................................................11
           Hall’s context ................................................................................................................13
           Context and individualism ............................................................................................15
   Culture and Information .....................................................................................................16
       Definition of Information ...............................................................................................16
       Relationship between Culture and Information ............................................................16
   Cultural Studies in Information Science .............................................................................18
       Asian ...............................................................................................................................18
       Hispanic and others .......................................................................................................19
       African-American ..........................................................................................................20
       Implication .....................................................................................................................21
   Cultural Studies in Advertising ..........................................................................................21
       Cultural Differences between American and Asian Ads ...............................................22
       Korean advertisements .................................................................................................23
       Japanese advertisements ...............................................................................................25
       Chinese advertisements ...............................................................................................25
       Information in Advertisements .....................................................................................26
   Summary of the Chapter .....................................................................................................28

CHAPTER THREE: METHOD ..................................................................................................29
   Research Design ................................................................................................................29
   Sampling and Recruitment Procedures ..............................................................................30
# Data Collection Procedures

Types of Information ..............................................................................31

Test Materials ..........................................................................................32

Validity ........................................................................................................32

Individualism/Collectivism Scales ............................................................33

Independent Variables ................................................................................34

  Cultural difference ..................................................................................34

  Types of context in advertisements ......................................................34

Dependent Variables ..................................................................................35

  Perception ..............................................................................................35

  Recall .....................................................................................................35

  Attitude toward advertisements ...........................................................36

Socio-Demographic Information ...............................................................37

Data Analysis ..............................................................................................37

  Pretest ....................................................................................................37

  Tests of Advertisements ........................................................................38

    Development of the high-context advertisement ................................39

    Development of the low-context advertisement ..................................40

    Pretest of the test advertisements ......................................................41

Pretest of the Culture Measure .................................................................42

Summary of the Chapter ..........................................................................44

# CHAPTER FOUR: RESULTS

Demographic Characteristic .......................................................................45

Cultural Differences ...................................................................................45

Perception Test .........................................................................................46

Recall Test ...............................................................................................48

Attitude Test ............................................................................................49

Summary of the Results ............................................................................50

# CHAPTER FIVE: CONCLUSIONS

Discussion of Results ................................................................................50

Perceptions ...............................................................................................50

Recall .......................................................................................................51

Attitude ...................................................................................................52

Discussion of Culture ...............................................................................52

  Individualism .........................................................................................55

  Context ..................................................................................................56

Implications ...............................................................................................57

Limitations ...............................................................................................58

Future Research .......................................................................................59

Summary of Conclusion ...........................................................................60
LIST OF TABLES

Table 1: Definition of Information ................................................................................................32
Table 2: Individualism-Collectivism Scales ..................................................................................35
Table 3: Scale Used to measure Attitude toward Advertisement ..................................................37
Table 4: Pretest Results of Individualism-Collectivism Scale.........................................................43
Table 5: Demographic Characteristic of Subjects .........................................................................46
Table 6: Interest in Mobile phones and Technology ......................................................................47
Table 7: Cultural Differences.........................................................................................................48
Table 8: Results of Perception Test ...............................................................................................50
Table 9: Simple Effect Test of Perception......................................................................................50
Table 10: Chi-square Test of Perception of High-context Ad ..........................................................52
Table 11: Chi-square Test of Perception of Low-context Ad ..........................................................54
Table 12: Results of Recall Test ....................................................................................................56
Table 13: Chi-square Test of Recall of High-context Ad ...............................................................57
Table 14: Chi-square Test of Recall of Low-context Ad ...............................................................59
Table 15: Results of Attitude Test .................................................................................................60
Table 16: Simple Effect Test of Attitude.......................................................................................61
Table 17: T-test of Attitude of High-context Ad on 7 items ..........................................................62
Table 18: T-test of Attitude of Low-context Ad on 7 items ...........................................................64
LIST OF FIGURES

Figure 1: Diagram of the Study .......................................................................................................8
Figure 2: HC and LC transaction ...................................................................................................14
Figure 3: Experiment Design of the Study ....................................................................................29
Figure 4: High-context Advertisement ..........................................................................................40
Figure 5: Low-context Advertisement ...........................................................................................41
Figure 6: Information in the Test Advertisements ..........................................................................42
Figure 7: Subjects’ Interest in Mobile phones and Technology .......................................................47
Figure 8: Perceptions of Information .............................................................................................49
Figure 9: Perceptions of Information from High-context Advertisement .......................................51
Figure 10: Perceptions of Information from Low-context Advertisement ......................................53
Figure 11: Recall of Information ...................................................................................................55
Figure 12: Recall of Information from High-context Advertisement .............................................57
Figure 13: Recall of Information from Low-context Advertisement .............................................58
Figure 14: Attitude toward Advertisements ...................................................................................60
Figure 15: Attitude toward High-context Advertisement ............................................................62
Figure 16: Attitude toward Low-context Advertisement .............................................................63
Figure 17: Suggested Cultural Dimensions for the U.S. and Korea .............................................70
ABSTRACT

Information in general is congruent with cultural values because a culture consists of transmitted social knowledge. Cross-cultural research demonstrates that audiences who are fostered by different cultures may have different understandings of information. This research represents a comprehensive cross-cultural study using an experimental method, and contributes to multicultural studies in understanding individuals’ perceptions of information, recall of information, and attitudes based on cultures.

This study investigates whether people in individual or collective cultures have different perceptions of information, recall of information, and attitudes toward advertisements providing information in high- or low-context conditions. The theoretical frameworks of interest in the study are two cultural theories: Hofstede’s (1980) individualism vs. collectivism and Hall’s (1976) high context vs. low context.

The hypotheses were tested using a 2 × 2 factorial between-subject experimental design: individualism/collectivism and high context/low context. The low-context condition employed facts and direct information in a test advertisement, while the high-context condition included indirect messages (e.g., images, moods, and symbols) in a test advertisement. The responses of experimental groups were compared and analyzed after they were exposed to two different stimuli. The subjects consisted of 82 American students and 82 Korean students. To check the two subject groups’ cultural differences, this research employs Oyserman et al.’s (2002) individualism and collectivism scale. The test results indicate that the American subjects are classified as an individualistic culture, while the Korean subjects represent a collectivistic culture.

The experiment results indicate that students in individualistic and collectivistic cultures respond differently to information in high- or low-context advertisements. Koreans tend to be more comfortable with high-context culture that uses indirect and ambiguous messages. The Korean subjects show higher ratings for perceptions of information in a high-context advertisement compared to the American subjects. There is no statistically significant difference in recall of information from high- and low-context conditions between the American and the Korean subjects. The American subjects show significantly more favorable attitudes toward the low-context advertisement compared to the Korean subjects. However, there is no statistically
significant difference in attitudes toward the high-context advertisement between the American and the Korean subjects. This study supports the notion that cultural differences influence the perception of information in high-context condition and attitudes toward advertisements providing information in low-context condition. The findings obtained in this study suggest several exciting opportunities for future research.
CHAPTER ONE
INTRODUCTION

This study seeks to determine whether audiences in individual and collective cultures differ in how they perceive and recall information from print advertisements, and whether they hold different attitudes toward advertisements that embed contextual information. The definition of collectivism and individualism used in the current study is taken from Hofstede’s (1980, 2001) work. Hofstede (1980) defines individualism as "a preference for a loosely knit social structure in which individuals take care of themselves and their immediate families only" and collectivism as "a tightly knit social organization in which individuals can expect other in-group persons to look after them" (p. 87). The definition of perception used in the current study is borrowed from Schiffman and Kanuk’s (1991) research, where they define it as “the process by which an individual selects, organizes, and interprets stimuli into a meaningful and coherent picture of the world” (p. 147). Recall used in the study of human memory processes is defined as “the act of retrieving information or events from the past while lacking a specific cue to help in retrieving the information” (Encyclopedia Britannica, 2002, p. 976). Attitudes toward print advertisement represents an individual’s degree of like or dislike for print advertisement or, in this study, a respondent’s degree of like or dislike toward two types of print advertisements (high-context vs. low-context). High-context print advertising is characterized by the use of indirect communication such as less copy and more symbols (e.g., images). Low-context print advertising uses more direct communication using copy, facts, data and argumentation than high-context advertising (De Mooij, 1997).

This chapter provides a preliminary explanation of the goal of the dissertation, the variables of interest, the relationship between variables, and the research method to be employed.

Background of the Study

Cross-cultural research demonstrates that audiences who are fostered by different cultures may have different understandings of information (Komlodi & Carlin, 2004; Machlup & Mansfield, 1983; Menou, 1983). Machlup and Mansfield (1983) discuss the role of information in society and contend that information is culture specific. Machlup and Mansfield (1983) hypothesize that data are collected, organized, and communicated within a cultural context. Menou (1983) also articulates the culturally intrinsic dimension of information, saying that “information is culture specific and consequently, is
largely incommunicable unless it has been acculturated” (p. 121). Komlodi and Carlin (2004) explore the influence of culture on information using Hall’s (1976) high-context and low-context cultural model and reveal that different cultures will express different information needs depending on how reliant they are on information contained in the context.

The content of advertising messages containing potential information is considered to be particularly reflective of culture (Hong, Muderrisoglu, & Zinkhan, 1987). Scholars agree that advertising is a window to culture because it is based on language and other communication tools that are deeply rooted in culture (Schutte & Ciarlante, 1998). People usually understand the content of advertising messages by relating them to a particular culture and to the shared values or beliefs held in common by most people (Frith, 1997). Therefore, advertising can be an effective tool if the advertisers know the cultural context of their audiences (An & Kim, 2007; Frith, 1997). Based on this view, a large number of cross-cultural studies have examined cultural values embedded in the content of advertising between countries and the effectiveness of the advertising (Bang & Moon, 2002; Bond, 1983; Bu, Kim, & Lee, 2009; Cheng & Schweitzer, 1996; Choi & Miracle, 2004; Fam & Grohs, 2007; Helgert, 1992; Hong et al., 1987; Jeon et al., 1999; Lin, 1993; Miracle, Chang & Taylor, 1992; Mueller, 1987; Ramaprasad & Hasegawa, 1992; Taylor, Miracle, & Wilson, 1997; Weun, Hunt, & Schribner, 2004; Zandpour et al., 1994). Since culture plays an important role in the perception and use of advertising messages, consumers from different cultural backgrounds may perceive and recall similar messages in ads differently (Kaynak & Mitchell, 1981).

Statement of the Problem

Despite the importance of understanding the role of culture in the access and understanding of information, previous studies in cross-cultural settings have primarily dealt with finding information sources used in different cultures (Bishop et al., 1999; Fisher et al., 2004; Hsia, 1987; Liu & Redfern, 1997; Liao, Finn, & Lu, 2007; Lundeen, Tenopir, & Wermager, 1991; Newhagen, 1994; Spink & Cole, 2001; Tornatzky, Cutler, & Lee, 2002). While several scholars have stressed the importance of culture in analyzing consumer response to information content and marketing stimuli (Bu et al., 2009) or in finding information from commercial contents (Taylor, Miracle, & Wilson, 1997; Yoon & Cropp, 1999), there has not been sufficient research focusing on individual users: how they sought information and what kind of results they experienced. In addition, most information behavior studies in cultural contexts have been less concerned with the larger contexts of individual lives and instead have focused on users
intersecting with the information system in terms of their external behavior rather than internal cognitions (Jeong, 2004; Lee et al., 2005; Ziming, 1993).

Other cross-cultural studies have used a descriptive approach rather than analytical and scientific explanations (Mueller, 1987). For instance, the most common method used by scholars is content analysis to investigate cross-cultural differences in messages (Cho et al., 1999; Keown et al., 1992; Moon & Franke, 1996; Weun et al., 2004). However, cross-cultural research using content analysis is also often criticized for failure to develop cross-culturally consistent categories and coding rules for each culture (Han, 1990). Few experimental studies are designed to explore information perception and recall across cultures.

The implication drawn from previous research is that although most research in information behavior has concentrated on the external behavior of people and their interactions with an information system, few studies have focused on the internal cognition of individual users in a cultural context. Also, since little experiment-based empirical research has been conducted on cross-cultural information perception and recall, studies that implement experiments in cross-cultural settings are needed.

**Overview of the Study**

**Rationale for the Study**

This study focuses on the internal cognition of individual users in a cultural context and contributes to multicultural studies in understanding the individual’s perception and recall of information and attitudes based on culture. By using a theory-based dimension already identified in previous cross-cultural research, this study will benefit information professionals and marketers.

Information professionals are faced with the challenge of a growing population of multicultural students. The finding of this study will benefit information professionals who are looking for an effective way of conveying information to culturally diverse audiences. Also, the findings will provide a foundation for understanding the role of culture in accomplishing the mission of the library, and will encourage public libraries to discuss their programs for international students. The greater understanding of cultural differences will result in increasing library use of international students.

This study will improve understandings of multicultural information processing in the global market. From a practical perspective, the findings and analyses will benefit marketers in the adoption and development of marketing strategies in their culturally diverse markets.

This research represents one of a few comprehensive cross-cultural studies using an experimental method in order to suggest analytical and scientific explanations rather than a descriptive approach.
common to the literature in this area. The standardized procedures and measures of the experimental method will allow it to be easily repeated in the future.

Theories

The theoretical frameworks of interest in the current study are two cultural models: Hofstede’s (1980) *individualism* and Hall’s (1976) *context*.

Hofstede (1980) finds differences in culture among modern nations. He first conducted surveys with subsidiaries of one large multinational business organization in forty countries and then extended it to fifty countries. He collected additional data among managers who participated in seminar courses. Hofstede discusses the individual and collective dimensions on which cultures differ. Individualism and collectivism illustrate the relationship between the individual and the collective that prevails in a given society.

Hofstede (1980) suggests the differences between the cultures of the U.S. and Korea in terms of individualism and collectivism. The U.S. ranked at the top with a score of 91 as the most individualistic culture, whereas Korea ranked 43rd with a score of 18 out of fifty countries, indicating a more collectivistic culture (Hofstede, 1980; Taylor et al., 1997). Kim (1985) concurs with Hofstede's finding and reveals that Koreans tend to consider themselves as part of the larger social context surrounding the individual, but Americans view the individual as the center of society.

Hall’s (1976) model of context concentrates on human interaction. Context is defined as “every possible attribute of person, culture, situation, behavior, organization, or structure” (Dervin, 1996, p. 14). Hall explains that different languages exhibit contextual variations. He describes the difference between high-context and low-context languages as follows:

A high-context (HC) communication or message is one in which most of the information is already in the person, while very little is in the coded, explicit, transmitted part of the message. A low-context (LC) communication is just the opposite; i.e., the mass of the information is vested in the explicit code. (p. 79)

In other words, low-context messages are analytical, explicit, and clearly articulated, whereas high-context messages are perceptive, indirect, and ambiguous (Taylor et al., 1997).

Hall (1976) suggests that the United States and some Western European countries are low-context cultures and that Korea, Japan, and Taiwan are high-context cultures. Scholars (Gudykunst et al., 1987; Kim, 1985) support Korea’s classification as a high-context culture. Gudykunst et al. (1987) find that Koreans prefer indirect and ambiguous communication, while Americans choose more direct and
clear communication. Kim (1985) demonstrates that Americans consistently rely more on low-context communications than do Koreans.

**Research Questions**

This study investigates whether people in individual or collective cultures have different perceptions of information, recall of information, and attitudes toward advertisements providing information in high- or low-context conditions. The American culture represents individualism, whereas the Korean culture represents collectivism (Hofstede, 1980, 1983). Using the cultural models of individualism and context, this study will attempt to answer the following questions:

1) Are there statistically significant differences in perception of information between American and Korean students?
2) Are there statistically significant differences in recall of information between American and Korean students?
3) Do American and Korean students significantly differ in their attitudes toward high or low-context advertising?

**Hypotheses**

The series of hypotheses are based on the two cultural models (individualism and context) and the preceding research.

**Perception.** The first objective of this study is to ascertain whether culture plays an important role in the perception of information in print advertisements. People in individualistic cultures tend to use direct communication and are more concerned with clarity, but people in collectivistic cultures tend to use relatively indirect communication (Kim, 1994; Triandis, 1994).

Advertisements usually contain both verbal and visual information about product attributes (Olney et al., 1991). In comparison to textual information, visual or pictorial information in advertisements is complex and may offer each culture a different potential of understanding. The information content provides meaningful cues to the audience by transmitting visual stimuli, symbols, and text (Taylor et al., 1997). One distinction that can be made between American and Korean ads is that, as the probable result of cultural differences, American ads use direct speech to highlight the merits of the product clearly, insistently, logically and reasonably, whereas Korean ads mainly aim to affect and usually utilize emotional appeals (Choi & Miracle, 2004). Researchers support this position. Cho et al. (1999) develop a cross-cultural content analysis framework and report that U.S. commercials use more direct approaches than Korean commercials do. Zandpour et al. (1994) reveal that Americans
make decisions based on information, evidence, and reasoning, and American ads use much more rational appeals than Korean ads do. Jeon et al. (1999) suggest Koreans infer more information from implicit, contextual cues in messages than do Americans.

Therefore, these cultural characteristics suggest that in comparison with U.S. audiences, Korean audiences are likely to identify more information in context (e.g., moods and visuals). The above discussion leads to the following hypothesis:

**H1:** Culture plays a role in how an individual perceives information in advertising, with Korean students perceiving more information in the high-context print advertisement than American students do.

**Recall.** This research uses cross-cultural models to explicate differences in recalling information in high- or low-context print advertisements between American and Korean students. Hall (1980) explains that low-context transactions can be characterized as direct information and meaning that is in the receiver and in the setting. Low-context transactions contain only minimal preprogrammed information (context) in the transmitted message. High-context transactions, however, are the reverse. Hall (1976) explicitly describes the United States and some Western European countries as low-context cultures using articulated messages, such as a descriptive sentence, and Korea, Japan, and Taiwan as high-context cultures preferring indirect and ambiguous messages, such as an image and/or mood. Individualism and collectivism are related to context (Choi & Miracle, 2004). High-context communications, which use implicit and indirect messages, are predominant in collectivistic cultures, whereas low-context communications, which use explicit and direct messages, are predominant in individualistic cultures (Choi & Miracle, 2004; Hall, 1976; Hofstede, 1991). Therefore, people from collectivistic and high-context cultures tend to convey their messages in a relevant and indirect context, but people from individualistic and low-context cultures may find those messages vague and unclear.

Since there are clear differences between American and Korean cultural patterns, advertising as a conspicuous indicator of cultural values usually manifests these differences (Hong et al., 1987). Korean advertising is known for its attempts to release a positive emotional response through image (Bu et al., 2009). Korean advertising is also more artistic and sophisticated than American advertising, while American advertising directly presents information, facts, and evidence related to product merits and purchase reasons (Hong et al., 1987).

This study anticipates that the differences in advertisements between the U.S. and Korea come from the different advertising strategies that will be more effective in their markets. Marketers may
expect Americans will recall more information from advertisements bound to the text or explicit claims, while Koreans will recall more field information (or contextualized information) in advertising. Schmitt, Pan, and Tavassoli (1994) compare the different recall of information between audiences in Eastern and Western countries. Schmitt et al. (1994) reveal that native Chinese speakers seem to be more likely to recall information with visual memory than native English speakers.

Based on this reasoning, it is anticipated that Korean audiences are likely to recall more information in context (e.g., moods and visuals). In contrast, Americans' recall of information from advertisements will be more bound to the text or explicit claims. Consequently, the researcher offers the following hypothesis:

**H2:** Culture plays a role in how an individual recalls information in advertising, with Korean students recalling more information in the high-context print advertisement than American students do.

**Attitude.** The third goal of this research is to identify different attitudes toward high- or low-context print advertisements between American and Korean students.

Numerous researchers (Cho et al., 1999; Hofstede, 1980; Jeon et al., 1999; Kim, 1985; Oyserman et al., 2002; Taylor et al., 1997) discuss the differences between the cultures of the United States and Korea in terms of individualism and collectivism. Hofstede (1980) ranks the United States as the most individualistic culture at the top with a score of 91, whereas Korea is ranked 43rd with a score of 18 out of fifty countries, indicating a more collectivistic culture (Taylor et al., 1997). Kim (1985) concurs with Hofstede's finding of U.S./Korea differences in individualistic and collectivistic behaviors. He finds that Korean and Japanese people tend to consider themselves as part of the larger social context surrounding the individual. Similarly, Oyserman et al. (2002) meta-analyze the Americans’ inter-national and intra-national cultural differences in the dimension of individualism and collectivism. They find that Americans tend to be higher than others in individualism and lower in collectivism by intra-national comparisons.

Taylor et al. (1997) demonstrate that since Korea is a collectivistic culture and puts more importance on the development of personal relationships with customers, Koreans use higher emotional appeals. American culture, in contrast, is so confrontational and individualistic that American advertising emphasizes rational appeals due to the reliance on individual decision making. Americans use information in low-context ads, while Koreans prefer information in high-context for their advertisements (Helgert, 1992; Jeon et al., 1999; Taylor et al., 1997). Because of the cultural differences
and different advertising preference between Americans and Koreans, the researcher expects Americans and Koreans are likely to react differently to high- or low-context advertisements. As such, the following hypothesis is stated:

**H3a:** American students will exhibit more positive attitudes toward the low-context print advertisement than Korean students do.

**H3b:** Korean students will exhibit more positive attitudes toward the high-context print advertisement than American students do.

**Summary of the Study**

The following diagram provides an explanation of the variables in this study and their relationships.

![Diagram of the Study](image)

**Figure 1: Diagram of the Study**

This diagram illustrates the effect of culture on perception of information, recall of information, and attitude toward two types of advertisements: high-context and low-context. Cultural factors are selected based on previous cross-cultural studies of individualism vs. collectivism. The reactions to the two types of advertisements include perception of information, recall of information, and attitude toward the advertisements. Cultural difference is operationalized through the culture of participants. The
American culture represents individualism, whereas the Korean culture represents collectivism (Hofstede, 1980, 1983).

**Method**

To date, little experiment-based empirical research on individuals’ information perception and recall across cultures has been conducted. Previous cross-cultural studies used a descriptive approach common in the literature in this area rather than an analytical explanation. Thus, in order to advance the field’s understanding of this topic, studies that implement experiments in cross-cultural settings are needed. The research method of this study is controlled laboratory experiments in order to provide good control over experimental treatments.

Data are collected in two identical procedures. One is performed with American students and another with Korean students. Data collection is designed to reflect marketplace settings in which consumers are interested in the advertisements.

**Summary of the Chapter**

The purpose of this study is to determine whether people in individual or collective cultures have different perceptions of information in advertisements, recall of information in advertisements, and attitudes toward advertisements providing information in high- or low-context conditions. The theoretical frameworks of interest in the study are two cultural theories: Hofstede’s (1980) individualism vs. collectivism and Hall’s (1976) high context vs. low context. The hypotheses were tested using a $2 \times 2$ factorial between-subject experimental design: individualism/collectivism and high context/low context. The experimental design serves as an analytical and scientific method to investigate the research questions. A review of the literature will establish the framework for the current study. The finding of this study will benefit information professionals and marketers who are looking for an effective way of conveying information to culturally diverse audiences.
CHAPTER TWO
REVIEW OF LITERATURE

The aim of this study is to investigate whether audiences in individual or collective cultures have different information perceptions, recall, and attitudes toward advertisements that embed contextual information. The literature review for the study will discuss culture, culture and information, and cultural studies in advertising.

Culture

Culture means the results of human creative work and interaction as demonstrated in the arts, literature, and education in narrow sense; however, in a wider sense, it means generally accepted patterns of thinking and feeling (Hofstede, 1994). Geertz (1973) defines culture as a historically transmitted pattern of meanings represented in symbols. People can communicate, perpetuate, and develop their own knowledge and attitudes towards life by means of culture (Geertz, 1973). Hofstede (1980) calls culture “a collective programming of the mind” (p. 13). In other words, while human beings all have the similar hardware of the human brain, the software of the human mind varies. Similarly, Steinwachs (1999) considers culture a “collective phenomenon” (p. 194). Culture as a collective phenomenon is created wherever human beings live together in groups over a long period of time and share a common history (Steinwachs, 1999). People in the same culture react similarly to a certain situation and judge certain behavior in the same way (Steinwachs, 1999). A prominent intercultural communication scholar, Hall (1976, p.14) defines culture as follows:

culture is man’s medium….how people express themselves, the way they think, how they move, how problems are solved, how their cities are planned and laid out, how transportation systems function and are organized, as well as how economic and government systems are put together and function.

Hofstede (1980) distinguishes culture from personality. Personality is “the individual’s unique personal set of mental programs” (De Mooij, 1997, p. 43). Culture determines the identity of human groups and what the members of a group have in common, but personality determines the identity of an individual (De Mooij, 1997; Hofstede, 1980). People share the same culture, but people also usually belong to more than one cultural group. As Hofstede (1980) mentions, “culture is usually reserved for society (in the modern world we speak of nations) or for ethnic or regional groups,” but it can be applied equally to
“other human collectivities or categories: an organization, a profession, or a family” (p. 26). The smallest unit is the family because each family has its own culture different from other families, and culture has been identified at the level of region, generation, religion, language, and nation (Steinwachs, 1999).

**Cultural Models**

Two of the most influential cross-cultural researchers are Hall (an American anthropologist) and Hofstede (a Dutch writer). They have developed models for the comparison of cultures.

**Hofstede’s cultural dimensions.** Five main dimensions of Hofstede (1980, 2001) on which nation’s cultures differ are individualism, power distance, uncertainty avoidance, masculinity, and long term orientation. Among the five dimensions identified by Hofstede, individualism is the broadest and most widely used dimension of cultural variability for comparisons between Americans and Asians.

Hofstede (1980) defines individualism as "a preference for a loosely knit social structure in which individuals take care of themselves and their immediate families only" and collectivism as "a tightly knit social organization in which individuals can expect other in-group persons to look after them" (p. 87). In discussing the relationship between the individualism and the collectivism in human society, Hofstede demonstrates that culture affects “both people’s mental programming and the structure and functioning of many other types of institution besides the family: educational, religious, political, and utilitarian” (p. 214). The interests of the individual prevail over that of the group in individualistic countries, but this relationship is reversed in collectivistic countries.

Hofstede reveals the relationship between individualism and national wealth. He demonstrates that “across all forty countries, there is a striking .82 correlation between individualism and wealth” (p. 231). Hofstede finds that wealthy countries (i.e., the U.S., Australia, and Great Britain) are the most individualistic countries, but poor countries (i.e., Colombia, Venezuela, and Taiwan) are the most collectivistic countries.

Scholars suggest that individualism/collectivism is an important cultural dimension for Asian studies (Kim, 1985; Bond, 1983; Miller, 1984). Kim (1985) concurs with Hofstede's finding of U.S./Korea differences in individualistic and collectivistic behaviors. He finds that Korean and Japanese people tend to consider themselves as part of the larger social context surrounding the individual. Individuals learn to regard himself or herself as part of a larger social system in the context. However, Americans view the individual as the center of the society. In similar cross-cultural psychological studies, Bond (1983) demonstrates that, although the attributions of American and Chinese people fell
into the same general categories, Chinese people attributed more to circumstances of a social nature and to situations involving social relationships than did Americans. In addition, Miller (1984) finds that cultural divergence can also be found in descriptions of persons, both those known well and not known well. She asks subjects of various ages to explain the behavior of an acquaintance witnessed in everyday life. Although explanations of children in the two cultures were alike according to their age, the author concludes that Americans are increasingly dispositionalist and Asian Indians are increasingly situationalist.

Hofstede’s study also discusses the differences between the cultures of the United States and Korea in terms of individualism and collectivism. The United States ranked at the top with a score of 91 as the most individualistic culture, whereas Korea ranked 43rd with a score of 18 out of fifty countries, indicating a more collectivistic culture out of forty countries (Hofstede, 1980; Taylor et al., 1997).

Four other dimensions developed by Hofstede (1980) are power distance, uncertainty avoidance, masculinity, and long term orientation. Power distance discusses inequality issues that can occur “in areas such as prestige, wealth, and power within different societies that assign different weights to status consistency among these areas” (p. 92). In small power distance countries, there is only limited dependence of subordinates on bosses; in large power distance countries, this dependence is higher. Uncertainty avoidance means that “different societies adapt to uncertainty in different ways” (p. 154). For example, societies use technology, law, and religion differently to alleviate anxiety related to uncertainty and to make the future more predictable. Masculinity describes “a relationship between the perceived goals of the organization and the career possibilities for men and women” (p. 261). It is about the social roles of men and women and how society recognizes behavior as more suitable for females or more suitable for males.

Hofsted (2001) added the fifth dimension (long term orientation) to the previous four cultural dimensions after conducting an additional international survey developed with Chinese employees and managers. He notes that “long term orientation stands for the fostering of virtues oriented toward future reward in particular perseverance and thrift” (p. 359). Long term orientation cultures attach more importance to the future. Short term orientation cultures are opposite because “it stands for the fostering of virtues related to the past and present” (p. 359).

Hofstede’s model, however, has been criticized by scholars. Most of all, this model has certain methodological and conceptual inconsistencies. The research concentrated on a single industry (computer industry) and a single company (IBM), which may have a culture of its own. His survey
participants were generally members of the middle class. Another criticism is on the grounds that Hofstede’s model assumes that national territory and the limits of culture correspond. Oyserman et al. (2002) find that this model is not effective to compare culturally diverse individuals who live within the U.S. However, Taylor (1997) suggests that Hofstede’s findings are most helpful when used to identify generalized differences in values between countries because Hofstede matched respondents from the various countries in terms of corporate culture and several demographic variables (e.g., occupation, age, and sex).

Although scholars (Hui, 1988; Singelis, 1994; Singelis, Triandis, Bhawuk, & Gelfand, 1995) have developed several ways to measure individualism (IND) and collectivism (COL), there is no current measurement tool that assess all the critical attributes of individualism and collectivism (Osyerman et al., 2002). The three most common measurement tools identified by Osyerman et al. (2002) are (a) the IND/COL measure (Hui, 1988), (b) the independent- interdependent (SCS) scale (Singelis, 1994), and (c) the horizontal-vertical collectivism—individualism scale (Singelis, et al., 1995). The IND/COL measure (Hui, 1988) includes a 63 item questionnaire for measuring collectivism and individualism and was used in a study of a small range of cultures in Hong Kong. Singelis (1994) tested the independent-interdependent (SCS) scale for multicultural students in Hawaii. The interdependence relates to collectivism, while the independence relates to individualism (Singelis, 1994). The horizontal-vertical collectivism—individualism scale was devised as a short and reliable measure of IND and COL, crossed with horizontal and vertical (Osyerman et al., 2002; Singelis et al., 1995).

**Hall’s context.** Hall (1976) investigated nonverbal components of cross-cultural communication (An, 2003). He defines context in one sense as “one of many ways of looking at things” (p. 98). Dervin (1996) defines context as “every possible attribute of person, culture, situation, behavior, organization, or structure” (p. 14) and “a necessary source of meaning” (p. 19).

Hall explains that different languages exhibit contextual variations. The difficulty in developing a translating machine of other languages lies “not in the linguistic code but in the context, which carries varying proportions of the meaning. Without context, the code is incomplete since it encompasses only part of the message” (p. 75). Hall argues that “the level of context determines everything about the nature of the communication and is the foundation on which all subsequent behavior rests (including symbolic behavior)” (p. 75). He describes the difference between high-context and low-context languages as follows:
A high-context (HC) communication or message is one in which most of the information is already in the person, while very little is in the coded, explicit, transmitted part of the message. A low-context (LC) communication is just the opposite; i.e., the mass of the information is vested in the explicit code (p. 79).

In other words, low-context messages are analytical, explicit, and clearly articulated, whereas high-context messages are perceptive, indirect, and ambiguous (Taylor et al., 1997). Hall explains low-context transactions can be characterized as direct information and meaning that is in the receiver and in the setting, with only minimal preprogrammed information (context) in the transmitted message. High context transactions, however, are the reverse (see Figure 2).

![Figure 2: HC and LC transaction, Source: Hall (1976, p. 89)](image)

Similarly, the level of context influences all other aspects of communication (Gudykunst, Yoon, & Nishadsa, 1987). Communication is more direct, and there is small scope for interpretation in low-context cultures. In high-context cultures, however, the individual has to pay much more attention to the situation, the environment, and non-verbal clues when interpreting communication (Steinwachs, 1999).

Hall identified three specific cultural dimensions, such as the type of relationships between individuals, the typical communicative context, and the differences between insiders and outsiders. People raised in high-context culture expect more of others than do the participants in low-context
culture (Hall, 1976). When people in high-context culture talk about something that they have on their minds, they will expect their friend to know the problem, so that they do not have to be specific. People in low-context cultures, however, easily interpret written messages with less knowledge of the context.

Several studies support this model. Gudykunst, Yoon, and Nishadsa (1987) find that members of low-context cultures gather information about others’ attitudes, values, emotions, and past behavior to predict their future behavior (i.e., reduce uncertainty). In contrast, members of high-context cultures seek out social information (e.g., where others went to school, their company). Similarly, Nakane (1974) concludes that Japanese people ignore an individual whose background is unknown because their behavior is unpredictable and it is unknown whether he/she will follow the norms/conventions appropriate in the context.

In addition, Hall (1976) suggests the United States and some Western European countries are low-context cultures and that Korea, Japan, and Taiwan are high-context cultures. Scholars support Korea’s classification as a high-context culture. Kim (1985) demonstrates that Americans consistently rely more on low-context communications than do Koreans. Gudykunst et al. (1987) find that Koreans prefer indirect and ambiguous communication, while Americans choose more relatively direct and clear communication.

**Context and individualism.** Conversation in individualistic cultures is more concerned with clarity (Kim, 1994), because individuals tend to use relatively direct communication (Triandis, 1988). In contrast, people in collectivistic cultures relatively use indirect communication because they are more concerned with issues of cohesive groups (Kim, 1994; Triandis, 1994). Therefore, individualism and collectivism are related to context (Choi & Miracle, 2004). High-context communications, which use implicit and indirect messages, are predominant in collectivistic cultures, whereas low-context communications, which use explicit and direct messages, are predominant in individualistic cultures (Choi & Miracle, 2004; Hall, 1976; Hofstede, 1991). Therefore, people from high-context and collective cultures tend to convey their messages in a relevant and indirect context, but listeners from low-context and individual culture may find those messages vague and unclear. In contrast, listeners from high-context and collective cultures may consider messages from low-context and individual culture to be pushy and aggressive (Rossman, 1994).
Culture and Information

Definition of Information

Contemporary culture is more heavily information laden than any of its predecessors (Webster, 2002). For instance, from the pattern of everyday life, people are aware that there has been an extraordinary increase in the information in social circulation. TV, radios, and movies have long been an important part of people’s information environment, but these media are more prevalent than ever. When walking along any street, it is almost impossible to miss advertisements and billboards.

Culture is, as already explained, a historically transmitted pattern of meanings represented in symbols (Geertz, 1973). However, it is hard to define what information is, because there are multiple perspectives to be considered. Several scholars have attempted to define information and have incorporated into their definitions specific and powerful assumptions regarding the nature of information (Buckland, 1991; McCreadie and Rice, 1999; Saracevic, 1999). Buckland (1991) typologically defines the term "information" as falling into three categories: information-as-process, information-as-knowledge, and information-as-thing. Information-as-process refers to “the act of informing, the communication of information, and how a person's state of knowledge is changed” (p. 351). The second sense of information is information-as-knowledge, a usage of the term denoting that which is perceived in the first category (i.e., the knowledge communicated). The final sense of the term is information-as-thing, which refers to “objects, such as data and documents regarded as being informative” (p. 351).

McCreadie and Rice (1999) identify four distinct conceptualizations of information. Their typology is similar to that of Buckland, but breaks Buckland’s two categories of information-as-thing and information-as-knowledge into three overlapping conceptions of information. Their four concepts are information as a resource, as data, as a representation of knowledge, and as a part of the communication process. Saracevic (1999) also deal with the definition of information at length in three senses: narrow sense, broad sense, and broadest sense. In narrow sense, information refers to “signals or messages for decisions involving little or no cognitive processing” (p. 1054). In a broad sense, information is treated as directly involving “cognitive processing and understanding” (p. 1054). Finally, in the broadest sense, he notes that “information involves not only messages (first sense) that are cognitively processed (second sense), but also a context—situation, task, problem-at-hand, and the like” (p. 1054).

Relationship between Culture and Information

Information and culture could hardly be separated because culture consists of all transmitted social knowledge (Menour, 1983). Machlup and Mansfield (1983) consider the role of information in
society and contend that information is culture specific. Machlup and Mansfield (1983) hypothesize that data are collected, organized, and communicated within a cultural context. Menou (1983) articulate the culturally intrinsic dimension of information, saying that “information is culture specific and consequently, is largely uncommunicable unless it has been acculturated” (p. 121).

Information, as a system of signs, depends on contextualizing cultural, historical, and collective meanings (Machlup & Mansfield, 1983). Saussure (1959) discusses that a signifier will lose its adequacy in representing a signified (informative object) in different conditions (or cultures). An informative object which is useful and meaningful for one culture might be useless and meaningless to another culture. For instance, Evans (1999) explains that the word ‘pet’ marks a category that falls between the human and the animal—so we can pet animals. However, people who live in the North of England are famous for calling their human loved-ones ‘pet.’ Other languages just have ‘house-animals.’

Komlodi and Carlin (2004) explore the influence of culture on information with Hall’s (1976) cultural dimensions, which are popular dimensions frequently cited in cross-cultural studies. Komlodi and Carlin discuss that context dimension will have a strong impact on information because different cultures will express different information needs depending on how reliant they are on information contained in the context. Additionally, Hall discusses that high-context cultures tend to have a very fast information flow while low-context cultures tend to be much slower. Therefore, cultures with fast information flow may easily access information, while slower information flow cultures have a higher tolerance for slow and more structured information (Komlodi & Carlin, 2004). Finally, Komlodi and Carlin explain that the speed of messages necessarily influences the relationship between information and culture. Some cultures are more comfortable with fast paced messages, while others are more comfortable with slow messages. Thus, an individual from a culture that is comfortable with slow message speeds will require information presented at a slower speed.

Bates (2005) argues that there is no discussion of how information processing in individuals varies by, for example, people in oral cultures compared to people in literate cultures. Similarly, Goody (1987) suggests that important cultural developments include the development of oral languages, the development of written languages, and the development of mathematical symbols, music scores, and other symbolic systems. The production of books, texts, and other documents is a special development in literate cultures. Documents are tools having specific kinds of functional values in those cultures (Bates, 2005).
Cultural Studies in Information Science

Culture has been identified as a key variable for better understanding human behavior, since culture affects perceptions, attitudes, and ultimately responsiveness to behavior (Rettie, 2002). People who are from a specific culture become committed to that culture’s style of thinking and feeling, value systems, attitude, and even cognitive processes (Hallowell, 1972). Several cultural studies reveal that individual behavior is different in dissimilar cultures. For example, Asians cognitively tend to interpret the field of view as a whole, while Americans cognitively focus more on separate objects oriented within the field (Mascuda & Nisbett, 2001). Hall (1976) also explicitly describes the United States and some Western European countries as low-context cultures using articulated messages (such as a descriptive sentence) and Korea, Japan, and Taiwan as high-context cultures preferring indirect and ambiguous messages (such as an image and mood).

Scholars have explored the information behavior of cultural groups, including Asian, African-American, and Hispanic. Usually, studies of multicultural information behavior have been conducted mainly at schools in the Southwest and Northeast, where the percentage of minorities grow significantly. More scholars need to respond to the information needs and information behavior of culturally diverse populations.

Asian. Little research has studied Asians’ information behavior (Jeong, 2004; Lee et al., 2005; Liu & Redfern, 1997; Yang, 2009; Ziming, 1993). Jeong (2004) explores Korean graduate students’ everyday life information seeking (ELIS), focusing on their perspectives and the role of Korean churches. He finds that Korean students get together in the Korean churches for information and social comfort. However, they are hampered by their limited English, which prevents them from interacting with American society. Lee et al. (2005) examine the music information behaviors of Korean, American, and other cultures. The authors analyze 107 authentic music information queries from a Korean knowledge search portal “Naver iN” and 150 queries from “the Google Answers” website. They also compare the music information search behaviors of Koreans and Americans using Google Answers as their second data source to collect Western music queries. The findings reveal that Korean and American web users frequently provide vague, incorrect, and incomplete information when they describe their music information needs in both Naver and Google Answers queries. Korean searchers fail to provide any bibliographic metadata such as composer, performer, or title in their queries.

Liu and Redfern (1997) conduct a survey with Asians on the campus of San Jose State University. The study reveals that their length of stay in the United States affects how often Asian
students use the library, as well as their behavior in asking reference questions. The survey also finds that Asian students are hindered by a fear of asking stupid questions, an inability to speak and understand English, and a lack of familiarity with the library reference desk.

Yang (2009) examined how people in different cultures differently browse information on the website according to the types of activity and the level of Web page complexity. Using Nisbett and Masuda (2003)’s cultural dimension, the author conducted the eye movement experiments with 19 American students and 19 Korean students. The results reveal that Korean students give more attention on navigation areas, while American student spend more time on the banner images. The author concludes that there are cultural variations in eye movement when viewing a Web page with different tasks.

Ziming (1993) examines the difficulties of international students in using libraries. The author interviews 54 mostly Asian students, and reveals that international students encounter several problems in using their school libraries such as insufficient English proficiency, making it difficult to understand library policy, and unfamiliarity of library classification systems including online catalogs and databases. The author also finds that international students, who are more proficient in English and whose home countries are more strongly influenced by American culture, encounter fewer difficulties in using libraries.

**Hispanic and others.** Specific studies have explored information behavior of other cultural groups (Fisher et al., 2004; Hover, 2006; Hsia, 1987; Lundeen et al., 1991; Tornatzky et al., 2002). Tornatzky et al. (2002) conduct a telephone survey of 1,054 Latino parents and in-depth interviews with 41 of them. They examine how and to what extent Latino parents have acquired the information about the process to enter college. They reveal that Latino parents acquire college knowledge from counselors, teachers, family, printed materials, and the Internet. In addition, Hsia (1987) reveals that Mexican Americans rely almost exclusively on friends and relatives for health information; the less-educated and less affluent among this group have much lower levels of information seeking.

Fisher et al. (2004) also investigate the information sources of 51 Hispanic farm workers at community technology centers. Hispanic farmers usually learn useful information through churches, schools, and their workplace. A few of them mention hair salons, medical clinics, a daycare center, a radio station, a bookstore, and a restaurant. They value their information grounds for offering easy, face-to-face communication and reliable sources.
Interestingly, Hover (2006) introduces an exploratory study of the cross-cultural information behavior of 84 academic and public reference librarians from Egypt and the U.S. The study is designed to examine how researchers react when they are confronted with foreign language resources, how they view the prospect of having access to such information, and what they need to improve user performance. The basic instrument of the research consists of a multi-level interview process in which quantitative and qualitative data are collected. However, a follow-up study and the results of the interviews have not been reported yet.

Lundeen et al. (1991) investigate the information needs of Hawaiians health care workers and their methods of accessing information through interviews and surveys. Although 85% of participants answer that they have computers, only 30% of them have modems and even fewer use online resources or free electronic databases at public and university libraries. Most participants choose journal articles as the information source that best meet their needs.

**African American.** Information studies of African Americans mainly focus on the channels they use when they seek out information. Most African-Americans are described living in low-income households in previous studies.

Scholars explore the information behavior of African Americans (Bishop, Tidline, Shoemaker, & Salela, 1999; Newhagen, 1994; Spink & Cole, 2001). Spink and Cole (2001) investigate the information seeking and information needs of African American households. Most participants describe other family members as the highest ranked source of news, followed by school, television, and newspaper. Bishop et al. (1999) interview 34 adults and conduct focus groups with 164 African American residents regarding their information needs and the channels they use to exchange information. Results indicate that, while computer use is minimal, many community members are poised to participate in the local development of networked information services. Similarly, Newhagen (1994) reports that racial differences become apparent in watching primetime TV. They reveal that the more African Americans watched entertainment programming, the more they feel that the political system is ineffective.

Two studies (Lewis, 1993; Chatman, 1991) deal with the information behavior of African American in everyday life information seeking. Lewis (1993) interviews 21 African American residents of a housing unit. The result indicates that most of the participants rarely use information from any sources before making a major purchase. The 29% of respondents have problems with a major purchase, and a majority had taken steps to correct the problem. Chatman (1991) reports an information-seeking behavior of janitorial workers. A representative profile of the janitors includes the following
characteristic: predominantly a black female, average age of 38, and three years short of a high school education. She reports that they are not active seekers of information outside of their most familiar social surroundings.

**Implication.** As American society becomes more and more culturally and ethnically diverse, information studies need to respond to information behavior influenced by cultural diversity. Several cultural studies reveal that individuals’ information behavior varies between cultures because culture influences communication, perceptions, attitudes, and ultimately behavior (Rettie, 2002). However, there has not been sufficient study exploring cultural differences in information behavior. Previous studies compare information sources and how they are used in various cultures (Liu & Redfern, 1997; Liao, Finn & Lu, 2007), but do not compare the information behavior among cultures and how individual users seek information, and what kind of results they experience.

It is also not certain that cultural difference predicts different information seeking in some cases. Newhagen (1994) conducted a telephone survey to test racial (possibly cultural) differences in perceived self-efficacy and media use in regard to politics. He finds that increase in exposure to information from media corresponds to increases in self-efficacy for African Americans, but political efficacy is not driven by race (or cultural group). Dervin et al. (1984) argue that the context (or situation) in which information behavior takes place is a much more powerful predictor of behavior. They consider that people have much in common in the way that they react to the certain situation that prompts a search for information (Case, 2006).

The implication drawn from previous research typically suggests that future studies need to take into consideration the cultural contexts in information studies. New methodological approaches are also needed.

**Cultural Studies in Advertising**

Advertising is considered to be particularly reflective of culture (Hong et al., 1987). Kaynak and Mitchell (1981) argue that culture plays an important role in the perception and use of advertising, so consumers from different cultural backgrounds may evaluate and perceive similar advertising messages differently. Usually, people understand advertising messages by relating them to culture and to the shared values or beliefs held in common by most people (Frith, 1997). Advertising messages can be powerful tools of persuasion by getting under the cultural skin of the society only if the advertisers know the cultural context of its audience (An & Kim, 2007). Thus, this culture relevant characteristic of advertising makes it possible for researchers to conduct cross-cultural studies with advertising. For
instance, Zandpour et al. (1994) conduct a multi-country study of advertising content. The authors analyze television advertising messages among eight countries: USA, Mexico, France, UK, Spain, Germany, Korea, and Taiwan. The result identifies differences in advertising creative strategy, informativeness, and presentation style among these countries. Similarly, Fam and Grohs (2007) telephone-interviewed a total of 1000 urban adults in five Asian countries (HK, China, Indonesia, Thailand, and India) on their thoughts about the TV advertisements that they liked. They reveal that, even though there are differences among countries, people in the same culture broadly share the same values.

Hall (1976) explains that high-context cultures, such as Korea and Japan, prefer to use indirect and ambiguous messages, but low-context cultures, such as the United States and some Western European countries, like direct and explicit messages. De Mooij (1997) supports Hall’s context model and explains that high context can be characterized by the use of indirect communication such as less copy and more symbols, but low context can be recognized to use more direct communication using copy, facts, data, and argumentation than high-context cultures. While facts and direct information are important in low-context cultures, high-context communication employs symbols and indirect communication in advertising (De Mooij, 1997). The difference between high and low-context cultures helps us understand why, for example, American and Asian advertising styles are different. Generally, American advertising prefers direct communication, such as texts to explain the features and how the product differs with others. But Asian advertising traditionally relies on symbolism, nuances, and non-verbal cues to differentiate the product.

Cultural Differences between American and Asian advertisements

Several cultural studies reveal that individuals’ behavior is different in dissimilar cultures. For example, Asians cognitively tend to interpret the field of view as a whole, while Americans cognitively focus more on separate objects oriented within the field (Mascuda & Nisbett, 2001). Hofstede’s (1980) study also reveals the differences between the cultures of the United States and Korea in terms of individualism and collectivism. The United States ranked at the top with a score of 91 as the most individualistic culture, whereas Korea ranked 43rd with a score of 18 out of fifty countries, indicating a more collectivistic culture (Taylor et al., 1997). Kim (1985) concurs with Hofstede's finding of U.S./Korea differences in individualistic and collectivistic behaviors. He finds that Korean and Japanese people tend to consider themselves as part of the larger social context surrounding the individual, in
which the individual learns to regard himself/herself as a part of a larger social system. However, Americans view the individual as the center of the society.

**Korean advertisements.** Since clear differences exist between American and Korean cultural patterns, advertising as a conspicuous indicator of cultural values usually manifests these differences (Hong et al., 1987). Based on Hall’s (1976) model, it is anticipated that Americans' perceptions of advertisements will be more bound to the texts or explicit claims in the ads they encountered. However, Koreans will attend to field information (or contextual information) in advertising and thus will recall more of such information. So, one distinction that can be made between American and Korean ads is that, as the probable result of cultural differences, American ads use direct speech to highlight the merits of the product clearly, insistently, logically, and reasonably, whereas Korean ads mainly aim at affect and usually utilize emotional appeal (Choi & Miracle, 2004). The cultural characteristics also suggest that in comparison with U.S. consumers, Korean consumers are likely to rely more on the contextual information (e.g., mood and tone) of advertising and less on the explicit claims.

Scholars identify clear differences existing between American and Korean advertising as a conspicuous indication of cultural value (Helgert, 1992; Jeon et al., 1999; Taylor et al., 1997). Helgert (1992) describes the Korean culture as more harmony-seeking compared to the individualistic American culture. He finds that Korean advertising is less receptive to rational and hard-sell arguments. Jeon et al. (1999) reveal greater use of emotional appeals in Korean ads than in U.S. ads. They conclude that because Korea is a high-context culture, Koreans infer more information from implicit and contextual cues in messages than do Americans as a low-context culture. Similarly, Taylor et al. (1997) demonstrate that since Korea is collectivistic culture that puts more importance on group consensus and the development of personal relationships with customers, Korea ads use more emotional appeals. American culture, in contrast, is so confrontational and individualistic that American ads emphasize rational appeals due to the reliance on individual decision making (Taylor et al., 1997). American culture is also a low power distance culture, meaning that Americans are less tolerant for authority than Koreans. Zandpour et al., (1994) conclude that American ads use much more rational appeals than Koreans because Americans make decisions based on information, evidence, and reasoning.

In most cases, scholars perform content analysis of print advertisements to identify cultural differences in Korean and American ads (Bang & Moon, 2002; Bu, Kim, & Lee, 2009; Choi & Miracle, 2004; Weun et al., 2004). Bang and Moon (2002) assess the level of effectiveness of service advertisements in the U.S. and Korea. The authors find that U.S. advertisers employ strategies to
generate more effective advertising at a higher frequency than Korean advertisers. More specifically, service advertising in the U.S. uses more tangible information cues than Korean advertising.

Weun et al. (2004) conduct a comprehensive cross-cultural study to compare information content in magazine advertising between the U.S. and Korea in order to compare informativeness. After conducting the content analysis with 1120 advertisements, they reveal that the Korean advertisements contain more information content than U.S. magazine ads. Three types of information (the prevalence of availability, packaging/shape, and performance) are popular in Korean magazine ads, but only packaging/shape information is provided in a majority of U.S. ads. The authors conclude that this difference is due to cultural differences in preference for information.

Bu et al. (2009) investigate the cross-cultural effects of visual forms of advertisements on consumers. As the type of visual forms, for example, product attributes and benefits are coded as direct visual forms; however, lifestyle and behavioral appeals that evoke inference about what consumers can get from experiences shown in ads are coded as indirect visual forms. The authors find that the proportion of indirect visual forms in Korean ads is significantly higher than in U.S. ads, while direct visual forms in U.S. ads are significantly higher than in Korean ads. In a second study using an experimental method, they demonstrate that the direct visual forms of advertisements have stronger effects on consumers in both countries: U.S. and Korea.

Choi and Miracle (2004), however, investigate the difference in the cross-cultural effectiveness of comparative advertising using the experimental method. They conducted an experiment in Korea and the U.S. on possible link between cultures and the effectiveness of comparative advertising. The authors find that culture influences the consumers’ reactions more in comparative advertising than non-comparative advertising. Americans show a more positive advertising attitude, brand attitude, and purchase intention than Koreans toward comparative advertising.

Two studies (Cho et al., 1999; Miracle et al., 1992) analyze TV commercials to investigate the cultural difference in Korean and American ads. Cho et al. (1999) develop a cross-cultural content analysis framework to examine underlying cultural dimensions: individualism/collectivism, time orientation, relation with nature, and contextuality. Their findings demonstrate that both countries (the U.S. and Korea) are present-time oriented, and U.S. commercials use more direct approaches and individualism more both in theme and execution. Miracle et al. (1992) examine the difference in advertising creative strategies relative to how soon, how long, and how often to present the brand, company name, and product in commercials of two countries: Korea and the U.S. A content analysis of
TV commercials in Korea and the U.S. reveals that several cultural variables are associated with differences in advertising creative strategies. Korean commercials identify the brand and product/package significantly earlier than U.S. commercials. All Korean commercials identify the company in the commercial, but only 56 percent of U.S. commercials do so.

**Japanese advertisements.** The collective value of Japan has similar effects on advertising (Taylor et al., 1997). Scholars identify clear differences existing between American and Japanese advertising as a conspicuous indication of cultural value (Hong et al., 1987; Lin, 1993; Mueller, 1987; Ramaprasad & Hasegawa, 1992). American advertising tries to persuade consumers by directly presenting facts and evidence related to product merit, but Japanese advertising appeals to emotional feeling and status symbols (Lin, 1993). For instance, Hong et al. (1987) investigate the difference in advertising expression and content in the two countries: the U.S. and Japan. American and Japanese print advertisements were analyzed to examine the degree of emotional appeals, informativeness, and comparativeness. The authors reveal that Japanese advertising has more emotional appeals, more informational appeals, and fewer comparative appeals than American advertising.

Similarly, Mueller (1987) investigates the role of culture in advertising content comparing Japanese and American advertising appeals. The author finds that, while the majority of Japanese advertising uses primarily traditional appeals (group/consensus, soft-sell, status, elderly, oneness with nature), increasingly the westernized appeal of individuality and independence is utilized in Japanese advertisements.

For informativeness of advertising, Ramaprasad and Hasegawa (1992) compare the information content of American and Japanese television. They find that American and Japanese commercials differ in the average amount of information content in some product and strategy categories. In both American and Japanese commercials, packaging information is the most common followed by information on performance. Content and price information are also used frequently in both countries. Lin (1993) also compares levels of informativeness for U.S. and Japanese advertisements. The author finds that Japanese advertising is less informative than U.S. ads, and U.S. advertising offers more facts and attributes to show product superiority. Japanese commercials contain greater product packaging and availability information, while U.S. commercials are more information-rich in the areas of special offers, price, taste, nutrition, quality, performance, and safety cues.

**Chinese advertisements.** In cross-cultural psychological studies comparing American and Chinese culture, Bond (1983) find that, although American and Chinese attributions fall into the same
general categories, Chinese people attribute more to circumstances of a social nature and to situations involving social relationships than Americans do. For instance, Cheng and Schweitzer (1996) investigate the content of over 1,000 Chinese and U.S. television commercials and identify seven cultural values: family, technology, enjoyment, individualism, economy, modernity, and youth. The authors find that symbolic cultural values in advertisements are more predominant in Chinese than in U.S. advertising.

Lin (2001) also investigates the role of cultural values in primetime television commercials in U.S and Chinese advertising. The author identifies the use of cultural values that are significantly different between the Chinese and U.S. samples. The author concludes that advertising in China retains characteristics of a consensual, gentler, and family-oriented tradition, but U.S. ads emphasize individualism, time-oriented, and hard-sell appeals.

**Information in Advertisements**

One variable that has been of particular interest to researchers is the level of information included in the multicultural advertising (Taylor et al., 1997). Presumably, advertising conveys some information by transmitting visual and audio stimuli that provide meaningful cues to the audience (Hong et al., 1987). Types of information (e.g. information cues or information criteria) are a classification system for advertising information and represent categories of information helpful for the consumers (Moon & Franke, 1996). The information in advertising help the consumer make an intelligent purchase decision.

Resnik and Stern (1977) identify 14 objectively measurable information cues: price or value, quality, performance, components or contents, availability, special offers, taste, packaging and shape, guarantee or warrantees, safety, nutrition, independent research, company-sponsored research, and new idea. They find that 49.7 percent of U.S. television commercials contain at least one information cues (i.e., a piece of information useful in helping the consumer make an intelligent purchase decision). Using Resnik and Stern’s (1977) scale, Moon and Franke (1996) replicate their previous research to investigate whether there have been any changes in information cues of Korean magazine ads. In result, they find that 83.3 percent of Korean magazine ads contain one or more information cues in 1994 compared to 80.5 percent in 1985. However, the slight increase in numbers of information cues in Korean magazine ads between 1994 and 1985 are not significant.

Scholars report cross-cultural comparison of information content in ads (Keown et al., 1992; Ramaprasad & Hasegawa, 1992; Taylor et al., 1997; Weun et al., 2004). Keown et al. (1992) find different information elements contained in four different media among four countries: the U.S., Japan,
Korea, and China. The result demonstrates that U.S. advertising contains more performance information of the products, while Korean advertising contains more quality information of the products. Interestingly, they also examine how information cues vary by medium types (TV, radio, magazines, and newspaper) in four countries: the U. S., Korea, Japan, and China. They report that the use of information cues vary by the medium type among countries. For example, Japanese newspapers and Chinese magazines contain more information cues than others, but U.S. television and radio commercials use more information cues than those of the other three countries.

Ramaprasad and Hasegawa (1992) compare the information contents of American and Japanese television commercials. They find that American and Japanese commercials differ in the average amount of information content in some product and strategy categories. In both American and Japanese commercials, packaging information is the most commonly used. Performance information, product content information, and price information are also used frequently in both countries.

Weun et al. (2004) compare information cues in magazine advertising between the U.S. and Korea. They reveal that the Korean advertisements contain more information cues than U.S. magazine ads. Three types of information (the prevalence of availability, packaging/shape, and performance) are popular in Korean magazine ads, but only packaging/shape information is provided in a majority of U.S. ads.

Taylor et al. (1997) also report an experimental study in which they compare the effectiveness of television commercials with varied levels of information (high vs. low) in the U.S. and Korea. The findings indicate that subjects in the two countries indeed respond differently to advertising executions based on information level in the product categories studied. The U.S. subjects prefer commercials with high levels of information for all three dependent measures: attitude toward ad, attitude toward brand, and purchase intention. The fact that Korean subjects do not show much preference for either high or low information levels suggests that the optimal information level is lower in Korea than in the U.S. For this study, Taylor et al. (1997) use 30 types of information: price, value, variety of the product, quality, size, economy/savings, supply, method of payment, reliability, nutrition, taste, sensory information, components, availability, packaging, warranty, independent research, company research, research from unidentified source, new ideas, performance, user’s satisfaction, superiority claim, convenience, special offer, new product, use occasion, characteristics, and company information.
Summary of the Chapter

The literature reviews for the study discuss culture, culture and information, and cultural studies in advertising. Hofstede (1980, 1983) and Hall (1976) discuss the differences between the cultures of the United States and Korea in terms of individualism and context. Hofstede describes the U.S. as an individualistic culture with Korea as a collectivistic culture. Hall suggests the U.S. is a low-context culture and Korea is a high-context culture. Several cultural studies reveal that individuals’ behavior is different in dissimilar cultures. Hall (1976) indicates the Americans use articulated messages (such as a descriptive sentence) and Koreas prefer indirect and ambiguous messages (such as an image and mood). However, there has not been sufficient study exploring cultural differences in information behavior. As American society becomes more and more culturally and ethnically diverse, information studies need to respond to information behavior influenced by cultural diversity. Scholars conclude that advertising is considered to be particularly reflective of culture. Culture plays an important role in the perception and use of advertising. Thus, this culture relevant characteristic of advertising makes it possible for researchers to conduct cross-cultural studies with advertising.
Do audiences in individualistic and collectivistic cultures respond differently to advertisements that embed information in low- or high-context? This experiment is designed to investigate whether audiences in individual or collective cultures differ in how they perceive and recall information in print ads, and whether they hold different attitudes toward advertisements that embed contextual information. The hypotheses were tested using an experimental design in which subjects were exposed to print advertisements and asked for their reactions to contextual information. The responses of experimental groups of American and Korean students were compared and analyzed after they were exposed to two different stimuli. The first section of this chapter discusses the research design, the experimental procedures, the operational definition of variables, and data analysis. The second section discusses whether the test advertisements are produced in accordance with the intent of this study and assesses the effectiveness of the test materials and the test procedures. Pretest to check the validity of the culture measure is also discussed.

**Research Design**

A 2 × 2 factorial between-subject experimental design was used. The following figure 3 provides an explanation of the experimental design of this dissertation research.

![Figure 3: Experimental Design of the Study.](image-url)
The independent variables are the cultures of American and Korean students and the types of context in advertisements. The dependent variables are perception of information, recall of information, and attitude toward advertisement in high- or low-context conditions.

**Sampling and Recruitment Procedures**

The population of this research is American and Korean college students. Subjects were selected from Florida State University. Students were asked to participate in the study voluntarily by a recruiting email, with the assistance of faculty and the Korean Student Association (KSA). The participants had a chance to win an iPod through a lottery drawing.

The subjects consisted of 168 undergraduate and graduate students. Data collection resulted in 164 usable responses as four participants had a high number of missing items. American students were asked to participate in the study voluntarily through recruiting emails and in-class presentations encouraging participation during the five classes at FSU. Most of the American students were undergraduates majoring in information technology. Recruiting emails were sent to Korean students using the email lists of the Korean Student Association (KSA). The researcher also asked for assistance from recruited Korean subjects to help identify other Korean students for the study. In this way, a sufficient number of Korean participants were recruited. The Korean subjects currently study in the U.S., but they were born and raised in Korea until they earned their high school. Previous studies agree that human cognitive and cultural style are formalized through childhood and adolescence while living in the country of birth (Chua, Boland, & Nisbett, 2005; Faiola & Matei, 2005; Lohse & Wu, 2001; Nisbett & Masuda, 2003). Korean subjects who currently study in the U.S. are expected to represent collectivistic culture.

To estimate adequate sample size, this study adopts statistical power analysis. Statistical power analysis involves “a good advance estimate of the strength of the hypothesized relationship in the population” (Schutt, 2006, p. 165). The larger the sample size, the larger the power. However, considering that increasing sample size requires tangible costs in time, money, and effort, the researcher desires a sample size that is "large enough," but not wastefully large. Even though there are no formal standards for power, most researchers assess the power of their tests as 0.8 as a standard for adequacy with a 95 percent confidence level. The researcher runs R package program and finds that total 160 subjects (40 in each cell) usually generate over 0.8 power. The total 164 recruited subjects meet the required sample size for the study.
Subjects were randomly assigned to one of two treatment groups that differ in types of context (high or low) advertisement.

**Data Collection Procedures**

Data was collected in four identical experimental conditions: high-context print advertisement condition for American students; low-context print advertisement condition for American students; high-context print advertisement condition for Korean students; and low-context print advertisement condition for Korean students. The experiment was designed to reflect marketplace settings in which consumers are interested in the advertisements.

The subjects were greeted and seated in separate chairs in a classroom and received a folder including experimental instructions, a test advertisement, and questionnaires. The researcher informed the subjects about the purpose of this study, the risks of being in the study, the benefit of being in the study, and the compensation. The researcher asked the subjects to sign the informed consent form if they agreed to participate in this study.

Then, the subjects were asked to open their folders and read instructions carefully at first (see Appendix A and B). The researcher then asked the subjects to complete a socio-demographic data sheet, on which they indicated their age, major, country of origin, and length of stay in the U.S. (see Appendix C). Next, they were instructed to carefully read every component of the test advertisements until they came to thoroughly understand the advertisement, especially visuals and body copy (see Figure 4 and 5). Each subject received a printed test advertisement (9x12 inches). The researcher let the subjects read the test advertisements for up to 10 minutes. Next, the subjects were asked to respond to a questionnaire that allows the researcher to measure the subjects’ perception of information (see Appendix D). The researcher asked the subjects to check all recognizable information from the test advertisement. The subjects were allowed to see the test advertisement during this procedure.

Following the measure of perception of information, the test advertisement was hidden from the subjects. The researcher asked the subjects to complete the individualism-collectivism measurement questions (see Appendix E) and had a three minute break to make an interval before doing a recall test. The researcher provided drinks and chips for the subjects.

Next, the subjects were asked to write down all information they could remember without looking at the test advertisements to ascertain how culture plays a role in recalling information from advertisements. Recall was measured using open-ended questions that examine how participants remember information without referring back to test advertisements again (see Appendix F). Following
this measure of perception and recall, the subjects were asked to rate their attitude toward the advertisement (see Appendix G). Finally, the subjects were debriefed, thanked, and dismissed.

**Types of Information**

In comparison to textual information, visual or pictorial information in advertisements is complex and may offer each culture a different potential of understanding. The information in advertising provides meaningful cues to the audience by transmitting visual stimuli, symbols, and text. From the frameworks of Resnik and Stern (1977) and Taylor et al.’s (1997) study, the researcher established the new 18 types of information. Resnik and Stern’s (1977) classification of information cues has been considered to produce generalizable codings of information in content analysis methodology (Franke, 1992). However, the researcher had to modify Resnik and Stern’s framework, not only to apply it to this experimental study, but also to include information commonly given in U.S. and South Korean advertising. The newly included types of information for this study are size, durability/reliability, superiority claim, convenience in use, new product, user’s satisfaction, characteristics or image of users, and company information.

The types of informational should be considered informative and allow subjects to make intelligent choices among alternatives after reading the advertisement (Weun et al., 2004). The 18 objectively measurable types of information are shown below (see Table 1).

<table>
<thead>
<tr>
<th>Types of Information</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price</td>
<td>Refers to the amount the consumer must pay for the product or service. May be in absolute terms, like a suggested retail price, or relative terms; for example, what does the product cost?</td>
</tr>
<tr>
<td>Value</td>
<td>Refers to some combination of price and quality or quantity, as in better quality at a low price or best value for the dollar.</td>
</tr>
<tr>
<td>Quality</td>
<td>Refers to how good the product or service is; may refer to craftsmanship and/or attention during manufacture, use of quality (i.e., better, best) ingredients or components. For example, what are the product’s characteristics?</td>
</tr>
<tr>
<td>Size</td>
<td>Refers to the physical size or capacity of the product. For example, how long, tall, wide, heavy, and what capacity to do particular size tasks</td>
</tr>
<tr>
<td>Types of Information</td>
<td>Definition</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Durability/reliability</td>
<td>Information concerning how long the product will last without repair, service records, and other related items.</td>
</tr>
<tr>
<td>Contents (multi components)</td>
<td>Information that may provide value for users in specific contexts/media. For example, what went into the making of the product?</td>
</tr>
<tr>
<td>Availability</td>
<td>Any information concerning the place(s) where the consumer may purchase or otherwise obtain the product. For example, where can the product be purchased?</td>
</tr>
<tr>
<td>Guarantees/warranty</td>
<td>Refers to any information concerning the presence of a guarantee or warranty.</td>
</tr>
<tr>
<td>Safety</td>
<td>Information concerning the safety of the product; for example, what safety features are available with the product?</td>
</tr>
<tr>
<td>New ideas (new uses)</td>
<td>Refers to any information about a new way to use an established product. For example, is a totally new concept introduced in the ad?</td>
</tr>
<tr>
<td>Performance (multi-function)</td>
<td>Any information concerning the outcomes associated with the use of a product</td>
</tr>
<tr>
<td>Superiority claim</td>
<td>Information that claims the advertised product is better than competitive products or better than an older version of the advertised product in some particular ways</td>
</tr>
<tr>
<td>Connectivity (convenience in use)</td>
<td>Refer to the phone’s ability to link with others. Information concerning the quality of its connectivity and the ease in which the product may be used.</td>
</tr>
<tr>
<td>Special offer or event</td>
<td>Information concerning special events such as sales, contests, two-for-one deals, or rebates</td>
</tr>
<tr>
<td>New product (improved features)</td>
<td>Refers to any information concerning a new product introduction, or new components, ingredients, and features of an existing product</td>
</tr>
<tr>
<td>Image of users (characteristics)</td>
<td>Refers to any information concerning the type(s) of individual(s) who might use the advertised product</td>
</tr>
<tr>
<td>User’s satisfaction</td>
<td>Refers to any information concerning users’ satisfaction, dedication, and preference for the advertised product</td>
</tr>
<tr>
<td>Company information</td>
<td>Refers to any information (e.g., name of company) about the image or reputation of the company that manufactures or distributes the product</td>
</tr>
</tbody>
</table>

Note. Sources: Resnik and Stern (1977, p. 51); Taylor et al. (1997, p. 17).
Test Materials

Two color print advertisements were developed for the two treatment conditions. The ad layout, picture, and copy were controlled and manipulated as potential elements. To be classified as an advertisement in high-context, the advertisement contained four or more types of information in its visual stimuli, symbols, and moods with simple texts, such as brand name and titles. To be classified as an advertisement in low-context, the advertisement contained four or more types of information in its text with simple images.

Mobile phones were chosen as the advertised product for this study because they are a personal product widely purchased by and familiar to college students in both countries. Two questions were provided to subjects in order to check whether mobile phones are a proper product category for the test advertisements. The researcher developed a fictitious competing brand to remove any possible influence due to prior brand evaluation or brand knowledge. Brands used in the advertisements were introduced to the students as a new brand in the market.

Equivalence. To ensure equivalence in the language of the low-context advertisements in Korean and English, several steps were conducted. The procedures to test equivalence of the test advertisements followed two studies (Choi & Miracle, 2004; Miracle & Bang, 2002). First, the test advertisements were produced in Korean. Two bilingual speakers translated the test advertisements from their original form in Korean into English with discussion. Then, two bilingual speakers translated the English version of the advertisements back into Korean version. The researcher compared the original version and the back-translated version. If the two versions did not match well, either the original English version or the Korean version was adjusted until the back-translated version was deemed equivalent to the original version. These processes were applied to the only low-context advertisement because the high-context advertisement did not include any copy to translate.

Validity

Several steps were taken to increase the validity of this study. First, the researcher conducted a pretest to make sure this study accurately assesses the specific concept that the researcher is attempting to measure. Pretest subjects easily followed and understood the experiment processes. Second, subjects were informed that the researcher was not connected with any advertising agencies or manufacturers and was not concerned whether their reactions were positive or negative. Subjects were also separated during the experiment and did not know that different types of advertisements were being used. Third, the test advertisements were newly created to ensure the validity of the research by avoiding the possible
effects of prior brand attitudes, prior exposure to the advertisements, and prior purchase of the product. Fourth, an equivalent process for test advertisements and a questionnaire were conducted as previously explained (see *Equivalence*).

**Individualism/ Collectivism Scales**

Focusing on cultural values assessed at the aggregate level and emphasizing differences between culture units, Oyserman et al. (2002) identified several major domains relating to individualism and collectivism with meta-analysis of 83 studies. This research employs and modifies these domains and sample questions to check the individualism of the subjects (see Table 2).

<table>
<thead>
<tr>
<th>Domains</th>
<th>Questions</th>
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</thead>
<tbody>
<tr>
<td>Individual</td>
<td>Independent: I tend to do my own thing, and others in my family do the same</td>
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<tr>
<td></td>
<td>Goals: I take great pride in accomplishing what no one else can accomplish</td>
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<tr>
<td></td>
<td>Compete: It is important to me that I perform better than others on a task</td>
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<tr>
<td></td>
<td>Unique: I am unique—different from others in many respects</td>
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<td></td>
<td>Private: I like my privacy</td>
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<td></td>
<td>Direct communicate: I state my opinions clearly</td>
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<tr>
<td></td>
<td>Self-know: I know my weaknesses and strengths</td>
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<tr>
<td>Collectivism</td>
<td>Related: To understand who I am, you must see me with members of my group(s)</td>
</tr>
<tr>
<td></td>
<td>Belong: It is pleasant for me to spend time with others</td>
</tr>
<tr>
<td></td>
<td>Duty: I feel obligated to help members of my social group(s)</td>
</tr>
<tr>
<td></td>
<td>Harmony: I make an effort to avoid disagreements with my group members</td>
</tr>
<tr>
<td></td>
<td>Advice: Before making a decision, I always consult with others</td>
</tr>
<tr>
<td></td>
<td>Hierarchy: I have respect for the authority figures with whom I interact</td>
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<tr>
<td></td>
<td>Group: Family members should stick together, no matter what sacrifices are required</td>
</tr>
</tbody>
</table>

*Note.* Source: Oyserman et al. (2002, p. 9).
Independent Variables

**Cultural difference.** Cultural difference is operationalized through the culture of participants. The American culture represents individualism, whereas the Korean culture represents collectivism (Hofstede, 1980, 1983). To check the individualistic or collectivistic cultures of subjects, the individualism-collectivism scales identified by Oyserman et al. (2002) were employed for the current study because these scales tend to provide an objective assessment of culture. A seven-point Likert scale was used for obtaining responses from the participants.

**Types of context in advertisements.** Low-context advertisements use explicit and direct messages that directly present information, facts, and evidence related to product merits and purchase reasons. The low-context advertisement in the experiment contains four or more types of information in its text with simple images. In contrast, the high-context advertisement uses implicit and indirect messages that are more artistic and sophisticated than low-context advertisements. The high-context advertisement in this experiment contains four or more types of information in its visual stimuli, symbols, and moods with simple texts, such as brand name and titles.

Dependent Variables

**Perception.** Perception is defined as “the process by which an individual selects, organizes, and interprets stimuli into a meaningful and coherent picture of the world” (Schiffman & Kanuk, 1991, p. 147). To measure how people in different cultures perceive information presented in advertisements, the researcher asked participants to check all recognizable information from the advertisement. The researcher intentionally included up to twelve types of information in the test advertisements: value, size, quality, contents, new idea, connectivity, superiority, new product, image of users, performance, satisfaction, and company information. The six types of information (price, durability, availability, guarantees, safety, and special offer) were not contained in the test advertisements, but they were used to verify the validity of the test advertisements and test procedures.

**Recall.** Recall is defined as “the act of retrieving information or events from the past while lacking a specific cue to help in retrieving the information” (Encyclopedia Britannica, 2002, p. 976), and has been used in the study of human memory processes. To ascertain whether culture plays an important role in recalling information from advertisements, participants were asked write down all information they could remember without looking at the test advertisements. Recall was measured using open-ended questions that examine how participants remember information without referring back to test
participants were asked the following question: what information can you remember from the test advertisements?

**Attitude toward advertisements.** Attitude toward advertisements means participants’ affective and cognitive reactions to the advertisements and represents an individual’s degree of like or dislike for advertisements. Subjects were asked to provide their attitude toward the test advertisement on a seven item scale (see Table 3). This scale was developed by Holmes and Crocker (1987).

Table 3: Scale Used to measure Attitude toward Advertisement

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<td>unimpressive</td>
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<td>unbelievable</td>
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<td>overall disliking</td>
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**Socio-Demographic Information**

Socio-Demographic information, such as an age, gender, major, academic years, language spoken, length of time lived in the U.S. (for Korean subjects), country of origin, technology preference, and interest in mobile phones, were collected from subjects. These data were used to assess the similarity of the groups compared.

**Data Analysis**

Data were analyzed using SPSS for Windows 18.0. Reliability, and Cronbach’s alpha coefficient was obtained for each scale. Frequencies and percentages for demographic variables were calculated. Means and standard deviations for all scales were also reported. This study defines a level of significance at an alpha of 0.05. Hypotheses 1 through 3B were analyzed using two-way ANOVA, t-test, and Chi-square to determine if differences exist between Korean and American students.

**Pretest**
The second section discusses whether the test advertisements are produced in accordance with the intent of this study and assesses the validity of the test materials, the test procedures, and the culture measure.

**Tests of Advertisements**

Before the pretest was undertaken, the two versions of the test advertisements were examined to see whether the advertisements were created in accordance with the intent of this study. Two color print advertisements were developed for the two treatment conditions: high context and low context. The test advertisements were newly created to ensure the validity of the research by avoiding the possible effects of prior brand attitudes, prior exposure to the advertisements, and prior purchase of the product. This study chooses mobile phones as the advertised product because they are a personal product widely purchased by and familiar to college students in both countries. The test advertisements contained both verbal and visual information about the mobile phone product. The advertisement layout, pictures, and copy were controlled and manipulated as potential information elements. The test advertisements (9x12 inches) were printed and given to each subject.

Compared to textual information, visual or pictorial information in advertisements is complex and may offer each culture a different potential for understanding. A low-context advertisement directly presents information, facts, and evidence related to product merits and reasons for purchase. In contrast, a high-context advertisement is more artistic and sophisticated than a low-context advertisement. Both low- and high-context advertisements provide information to the audience by transmitting visual stimuli, symbols, and text. The types of information can be defined as a classification system of information that represents categories of information helpful to consumers (Moon & Franke, 1996). The information in advertising helps the consumer to make an intelligent purchase decision.

Two color print advertisements were developed for the two treatment conditions: high context and low context (such as brand name and titles). To be classified as a high-context advertisement, the advertisement has to clearly contain four or more types of information in its visual stimuli, symbols, and mood with simple text. To be classified as a low-context advertisement, the advertisement has to clearly contain four or more types of information in its text with simple images.

The researcher intentionally included up to twelve types of information in the test advertisements: value, size, quality, contents, new idea, connectivity, superiority, new product, image of users, performance, satisfaction, and company information. Six types of information (price, durability, availability, guarantees, safety, and special offer) were not contained in the test advertisements, but they
were used to verify the validity of the test advertisements and test procedures. It was expected that types of information would be differently recognized by subjects depending on each culture.

The next task was to determine whether the test advertisements represented the high- or low-context conditions and were accomplished in accordance with the purpose of the study. As a first step, the researcher asked five bilingual students to evaluate the two experimental advertisements. The definitions of high-context and low-context advertisements were explained to the participants. Then, they were asked to determine whether the test advertisements they saw were high contextual or low-contextual. Based on the result of the interviews, the high-context and low-context advertisements were redesigned. This process was repeated until a clear distinction was found between the high-context and low-context advertisements. The same five bilingual students participated in each process to maintain consistency.

Development of the high-context advertisement. The high-context advertisement is artistic and utilizes more emotional appeals than the low-context advertisement because people in high-context cultures infer more information from implicit and contextual cues. The researcher developed a fictitious and competing brand to remove any possible influence due to prior brand evaluation or brand knowledge. Brands used in the advertisements were introduced to the pretest participants as a new brand in the market.

The researcher asked the five bilingual students who evaluated the high-context advertisement to check whether it was developed in accordance with the purpose of the study. Each participant was also asked to check the readability and comprehensibility of the test advertisement. Based on the result of the interviews, the high-context advertisements were redesigned three times.

The first version of a high-context advertisement was evaluated as containing information in visual stimuli and mood about product attributes by the participants. However, the participants pointed out that the images inside each phone were too small to read, and the bottom line in the advertisements was too quite simple (see Appendix H). The first high-context test advertisement was redesigned based on their comments.

The second version of a high-context advertisement was developed to provide more information in its visual stimuli and symbols with simple text. Participants evaluated the visuals and color in this advertisement as drawing their attention. This version, however, was rejected because the participants indicated that pictorial information in the advertisements was too complex and offered each participant a different potential of understanding. The participants also pointed out that the copies in the
advertisement did not well explain the visuals (see Appendix I). The second high-context test advertisement was rejected based on their comments.

The final version of the high-context advertisement was developed in accordance with the comments of the interview participants. They recommended that the images inside each phone should be large enough to read and pictorial information in the advertisements should not be too complex. The participants evaluated this advertisement as containing information in its visual stimuli, symbols, and mood with simple text. The bottom line in the advertisement also provided them potential information about the function of products (see figure 4). To check whether visual or pictorial information in the advertisement offers consumers of each culture a different potential of understanding, a pretest of the test advertisements was conducted.

![High-context Advertisement](image)

**Figure 4: High-context Advertisement**

**Development of the low-context advertisement.** Low-context advertisements use more rational appeals than high-context advertisements, because people in low-context cultures make decisions based on information, evidence, and reasoning. Therefore, low-context advertisements directly present information, facts, and evidence related to product merits and reasons to purchase. The researcher asked
the five bilingual students who evaluated the low-context advertisement to check whether it was developed in accordance with the purpose of the study. Each participant was also asked to check the readability and comprehensibility of the test advertisement. Based on the result of the interviews, the low-context advertisements were redesigned two times.

The participants evaluated the first version of the low-context advertisement as containing lots of verbal information in its text. However, they recommended that, since the female model provided meaningful visual cues to the audience, she should be removed from the advertisement to follow the purpose of the study (see Appendix J).

The final version of the low-context advertisement was developed in accordance with the comments from the interview participants. The participants evaluated this advertisement as containing more information in its text than in its visual stimuli and symbols (see figure 5).

![Figure 5: Low-context Advertisement](image)

**Pretest of the test advertisements.** To check the validity of the test advertisements, a pretest was conducted. A total of ten native speakers (five American students and five Korean students) who were blind to the hypotheses were asked to find all information from the final version of the high- and
low-context advertisements. The pretest participants also were asked to report to the researcher any other types of information besides the 18 types of information provided, if any were found in the test advertisements.

The researcher intentionally included twelve types of information in the test advertisements. Six types of information were not included in the test advertisements, but they were used to verify the validity of the test advertisements and test procedures. The low-context advertisement in the experiment needs to contain four or more types of information in its text with simple images. In contrast, high-context advertisement in this experiment should contain four or more types of information in its visual stimuli, symbols, and mood with simple text, such as brand name and titles.

The participants of each culture found four more types of information in the test advertisements. The high-context advertisement for American students had a mean of 4.20 while the high-context advertisement condition for Korean students had a mean of 6.40. The low-context advertisement condition for American students had a mean of 8.40 and the low-context advertisement condition for Korean students had a mean of 8.00 (see Figure 6).

This result confirms the validity of the test advertisements. The participants found four or more types of information in the both high-context and low-context advertisement. No additional types of information were reported by participants.

Figure 6: Information in the Test Advertisements
**Pretest of the Culture Measure**

To check the validity of the culture measure, the pretest participants were asked to complete the individualism-collectivism scale. Twenty-eight students (fourteen Americans and fourteen Koreans) volunteered to participate in the pretest. This research employs the Oyserman et al. (2002) scale and sample questions to determine subjects’ level of individualism and collectivism. Each scale has a potential mean score ranging from 1 to 7 points. Higher mean scores indicate that the person has a higher level of each cross-cultural value. Based on the work of Hofstede (1980), this research identifies American as an individualistic culture with Korean as a collectivistic culture.

Reliability using Cronbach’s alpha was measured. Cultural measurement questions returned a Cronbach’s alpha of individualism/collectivism for American students of 0.81 and individualism/collectivism for Korean students of 0.84. Since it is established that a value over 0.7 is an acceptable value for Cronbach’s alpha, this culture measure is considered reliable and valid to use for the main test.

As shown in Table 4, the independent-samples t-test results indicate that the culture measure is effective in measuring cultural differences. The test result classified American students \( (t = 2.53, \text{ df } = 26, \text{ p } = .018) \) as individualistic and Korean students as collectivistic \( (t = 4.09, \text{ df } = 26, \text{ p } = .000) \).

<table>
<thead>
<tr>
<th>Table 4: Pretest Results of the Individualism-Collectivism Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Individualism</strong></td>
</tr>
<tr>
<td>American students</td>
</tr>
<tr>
<td>Korean students</td>
</tr>
<tr>
<td><strong>Collectivism</strong></td>
</tr>
<tr>
<td>American students</td>
</tr>
<tr>
<td>Korean students</td>
</tr>
</tbody>
</table>

**Summary of the Chapter**

The first section of this chapter discusses the research design, the experimental procedures, the operational definition of variables, and data analysis. The second section discusses the pretest results to determine whether the test advertisements represent the high- or low-context conditions and are accomplished in accordance with the purpose of the study.
The researcher asked five bilingual students to evaluate the two test advertisements. Based on the results of the interviews, the high-context advertisement and low-context advertisement were redesigned. To check the usability of the test advertisements, a total of ten native speakers (five American students and five Korean students) who were blind to the hypotheses were asked to find all information from the final version of the high- and low- context advertisements. Finally, to check the validity of the culture measure, the pretest participants were asked to complete the individualism-collectivism scale. Twenty-eight students (fourteen Americans and fourteen Koreans) volunteered to participate in this pretest of the cultural measure.

The results of the pretest confirm that the test materials are in accordance with the purpose and assumptions of the study. Therefore, test materials are reliable and valid for the main study.
CHAPTER FOUR
RESULTS

This study investigates whether people in individual or collective cultures have different perceptions of information, recall of information, and attitudes toward advertisements providing information in high- or low- context conditions. The purpose of this chapter is to examine the statistical results of the experiment. This chapter discusses the responses of participants in the experiments and describes tests of the hypothesized effects on the dependent variables. Hypotheses 1 through 3B are analyzed using two-way ANOVA, t-test, and chi-square to determine if differences exist between Korean and American students.

Demographic Characteristic

The subjects consisted of 168 students, both undergraduate and graduate. Data collection resulted in 164 usable responses as four participants had a high number of missing items. Demographic statistics were collected about each subject’s gender, age, college years, and favorite cell phone brand. The final sample consisted of 82 American students and 82 Korean students from FSU. The American sample involved 63 men (76.8%) and 19 women (23.2%), and the Korean sample consisted of 48 men (58.5%) and 34 women (41.5%). Most of the subjects were undergraduate students: 68 American students (83%) and 62 Korean students (75.6%). Graduate students also participated in the study: 13 American students (15.9%) and 20 Korean students (24.4%). The average ages of the American students were 24, and the Korean students’ average ages were 27. The American students chose iPhone as their favorite cell phone brand, but there was no overwhelming favorite brand for the Korean students (see table 5).
This study chose mobile phones as the advertised product because they are a personal product widely purchased by and familiar to college students in both countries. Two questions were provided to subjects in order to check whether mobile phones are proper a product category for the test advertisements. Subjects were asked to check their interest or disinterest in mobile phones and technology on a seven-point Likert scale from strongly disinterested (1) to strongly interested (7). The results indicate that both the Korean students (m = 4.74) and the American students (m = 4.09) are interested in mobile phones. Also, the American students (m = 6.46) and the Korean students (m = 5.00) show favorable attitudes toward technology. Figure 7 shows the mean ratings of subjects’ interest in mobile phones and technology.

Table 5: Demographic Characteristics of Subjects

<table>
<thead>
<tr>
<th>Variable</th>
<th>Type</th>
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<th>Korean</th>
<th>Total</th>
</tr>
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<td></td>
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<td>number</td>
<td>number</td>
</tr>
<tr>
<td></td>
<td></td>
<td>percent</td>
<td>percent</td>
<td>percent</td>
</tr>
<tr>
<td>Gender</td>
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<td>111</td>
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<td></td>
<td></td>
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<td>67.7 %</td>
</tr>
<tr>
<td></td>
<td>Female</td>
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<td>34</td>
<td>53</td>
</tr>
<tr>
<td></td>
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<td>32.3 %</td>
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<td>Missing</td>
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<td>0</td>
<td>0</td>
</tr>
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<td>Class</td>
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<td>62</td>
<td>130</td>
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<td></td>
<td></td>
<td>83 %</td>
<td>75.6 %</td>
<td>79.3 %</td>
</tr>
<tr>
<td></td>
<td>Graduate</td>
<td>13</td>
<td>20</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15.9 %</td>
<td>24.4 %</td>
<td>20.1 %</td>
</tr>
<tr>
<td></td>
<td>Missing</td>
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<td>1</td>
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<tr>
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<td></td>
<td>1.1 %</td>
<td>0</td>
<td>.6 %</td>
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<td>Age</td>
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<td>4</td>
<td>19</td>
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<td>11.6 %</td>
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<td>22</td>
<td>28</td>
<td>11</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td></td>
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<td>13.4 %</td>
<td>23.8 %</td>
</tr>
<tr>
<td></td>
<td>23</td>
<td>7</td>
<td>10</td>
<td>17</td>
</tr>
<tr>
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<td>8.5 %</td>
<td>12.2 %</td>
<td>10.4 %</td>
</tr>
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<td>17</td>
<td>28</td>
</tr>
<tr>
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<td></td>
<td>13.4 %</td>
<td>20.7 %</td>
<td>17.1 %</td>
</tr>
<tr>
<td></td>
<td>25</td>
<td>3</td>
<td>11</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.7 %</td>
<td>13.4 %</td>
<td>8.5 %</td>
</tr>
<tr>
<td></td>
<td>26</td>
<td>1</td>
<td>12</td>
<td>13</td>
</tr>
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<td>1.2 %</td>
<td>14.6 %</td>
<td>7.9 %</td>
</tr>
<tr>
<td></td>
<td>Over 27</td>
<td>17</td>
<td>17</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20.7 %</td>
<td>20.7 %</td>
<td>20.7 %</td>
</tr>
<tr>
<td>Favorite Brand</td>
<td>Iphone</td>
<td>21</td>
<td>23</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td></td>
<td>25.6 %</td>
<td>28.4 %</td>
<td>26.8 %</td>
</tr>
<tr>
<td></td>
<td>Samsung</td>
<td>9</td>
<td>20</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td></td>
<td>11.0 %</td>
<td>24.7 %</td>
<td>17.7 %</td>
</tr>
<tr>
<td></td>
<td>Blackberry</td>
<td>8</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9.8 %</td>
<td>2.5 %</td>
<td>6.1 %</td>
</tr>
<tr>
<td></td>
<td>LG phone</td>
<td>2</td>
<td>14</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.4 %</td>
<td>17.3 %</td>
<td>9.8 %</td>
</tr>
<tr>
<td></td>
<td>Motorola</td>
<td>9</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>11.0 %</td>
<td>3.7 %</td>
<td>7.3 %</td>
</tr>
<tr>
<td></td>
<td>T-mobile</td>
<td>2</td>
<td>0</td>
<td>2</td>
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<td></td>
<td></td>
<td>2.4 %</td>
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</tr>
<tr>
<td></td>
<td>HTC</td>
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<td>2</td>
<td>12</td>
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<tr>
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<td>12.2 %</td>
<td>2.5 %</td>
<td>7.3 %</td>
</tr>
<tr>
<td></td>
<td>Verizon</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.2 %</td>
<td>0</td>
<td>.6 %</td>
</tr>
<tr>
<td></td>
<td>Nokia</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.4 %</td>
<td>0</td>
<td>1.2 %</td>
</tr>
<tr>
<td></td>
<td>Sky</td>
<td>1</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.2 %</td>
<td>13.6 %</td>
<td>6.7 %</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>5</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6.1 %</td>
<td>7.4 %</td>
<td>7.3 %</td>
</tr>
<tr>
<td></td>
<td>Missing</td>
<td>12</td>
<td>1</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>14.6 %</td>
<td>1.2 %</td>
<td>7.9 %</td>
</tr>
</tbody>
</table>

This study chose mobile phones as the advertised product because they are a personal product widely purchased by and familiar to college students in both countries. Two questions were provided to subjects in order to check whether mobile phones are proper a product category for the test advertisements. Subjects were asked to check their interest or disinterest in mobile phones and technology on a seven-point Likert scale from strongly disinterested (1) to strongly interested (7). The results indicate that both the Korean students (m = 4.74) and the American students (m = 4.09) are interested in mobile phones. Also, the American students (m = 6.46) and the Korean students (m = 5.00) show favorable attitudes toward technology. Figure 7 shows the mean ratings of subjects’ interest in mobile phones and technology.
The American students show more favorable attitudes toward technology than the Korean students \( (t = 2.30, \text{df} = 162, p<.01) \), but the Korean students are more interested in mobile phones than the American students \( (t = 6.97, \text{df} = 162, p = .022) \) (see table 6). The relatively high mean scores of subjects toward mobile phones and technology indicate that mobile phones are an appropriate product category for this study and are in accordance with the purpose of the study.

### Table 6: Interest in Mobile phones and Technology

<table>
<thead>
<tr>
<th></th>
<th>Culture</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest in mobile phones</td>
<td>American</td>
<td>82</td>
<td>4.09</td>
<td>2.09</td>
<td>2.305</td>
<td>162</td>
<td>.022</td>
</tr>
<tr>
<td></td>
<td>Korean</td>
<td>82</td>
<td>4.74</td>
<td>1.51</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest in technology</td>
<td>American</td>
<td>82</td>
<td>6.46</td>
<td>.996</td>
<td>6.975</td>
<td>162</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Korean</td>
<td>82</td>
<td>5.00</td>
<td>1.61</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Cultural Differences

This study assumes that there are clear differences between American and Korean culture on individualism based on previous research. To verify this assumption, this research employs the Oyserman et al. (2002) scale and sample questions to determine subjects’ level of individualism and
collectivism. Each scale has a potential mean score ranging from 1 to 7 points. Higher mean scores indicate that the person has a higher level of each cross-cultural value.

The results from the cultural measure were examined for reliability using Cronbach’s alpha. Cultural measurement questions returned a Cronbach’s alpha of individualism/collectivism for the American students of 0.84 and individualism/collectivism for the Korean students of 0.82. Since it is established that a value over 0.7 is an acceptable value for Cronbach’s alpha, this culture measure is considered reliable and valid to use for this study.

Individualism scores between the American students and the Korean students were compared statistically. The American students have higher individualism scores (m = 5.52) than the Korean students (m = 4.95). Likewise, the Korean students show higher collectivism scores (m = 5.60) than the American students (m = 4.79). The results of an independent-samples t-test indicate that the American students (t = 5.52, df = 162, p < .01) are classified as individualistic, and the Korean students (t = 6.80, df = 162, p < .01) are classified as collectivistic (see table 7).

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individualism</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American students</td>
<td>5.52</td>
<td>.672</td>
<td>5.52</td>
<td>162</td>
<td>.000</td>
</tr>
<tr>
<td>Korean students</td>
<td>4.95</td>
<td>.652</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collectivism</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American students</td>
<td>4.79</td>
<td>.850</td>
<td>6.80</td>
<td>162</td>
<td>.000</td>
</tr>
<tr>
<td>Korean students</td>
<td>5.60</td>
<td>.647</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The above analyses confirm that there are clear differences between American and Korean culture on individualism and collectivism. The American students are classified as individualistic, with the Korean students being classified as collectivistic.

**Perception Test**

*Test of H1:* Culture plays a role in how an individual perceives information in advertising, with Korean students perceiving more information in the high-context print advertisement than American students do.

The first test ascertains whether culture plays an important role in the perception of information in print advertising. Hypothesis 1 states that, since Korea is associated with a collectivistic culture, the
participants from this culture are expected to show higher ratings for perceptions of information in a high-context advertisement than the American participants.

When examining the Korean students’ total perception of information from the high-context advertisement, their means (m = 5.76) are indeed higher than the American students’ total perception of information from the high-context advertisement (m = 4.17). The American students perceive more information from the low-context advertisement (m = 6.70) than the Korean students (m = 6.40). Figure 8 shows the mean ratings of total perceptions as a function of culture and types of context.

Figure 8: Perceptions of Information

The test results were analyzed by using a two-way Analysis of Variance (ANOVA) procedure. The result of the perception test shows a significant interaction effect between culture and type of context (F (1, 160) = 7.85, p = .006), indicating the perception of information from two types of contextual advertisements depends on culture (see Table 8). Context has a significant effect on perception of information (F (1, 160) = 25.5, p = .000) and culture has main effect on it (F (1, 160) = 4.62, p = .033).
Table 8: Results of Perception Test

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>5461.609</td>
<td>1</td>
<td>5461.609</td>
<td>1256.720</td>
<td>.000</td>
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<tr>
<td>Culture</td>
<td>20.114</td>
<td>1</td>
<td>20.114</td>
<td>4.628</td>
<td>.033</td>
</tr>
<tr>
<td>Context (high &amp; low)</td>
<td>110.837</td>
<td>1</td>
<td>110.837</td>
<td>25.504</td>
<td>.000</td>
</tr>
<tr>
<td>Culture*Context</td>
<td>34.145</td>
<td>1</td>
<td>34.145</td>
<td>7.857</td>
<td>.006</td>
</tr>
<tr>
<td>Error</td>
<td>695.348</td>
<td>160</td>
<td>4.346</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>6296.000</td>
<td>164</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Since the test results of ANOVA demonstrate a significant interaction effect, the follow-up test (simple main effect) is conducted because the interaction effect indicates that the scores on the dependent variable (perception) are affected by the particular combination of the levels of the independent variables (culture and context). The simple main effects isolate the levels of a variable and compare the means of those groups in order to investigate where the differences among the interactions are. The simple main effects were acquired using the option with ANOVA.

Simple main effect analysis shows that the Korean students perceive more information from the high-context advertisement than the American students ($F(1,79) = 12.42, p = .001$) (see table 9). However, there is no difference between the American and Korean subjects’ perceptions of information from the low-context advertisement ($F(1,81) = .210, p = .648$). Therefore, H1 is supported. The results confirm that Korean students perceive more information from the high-context print advertisement than American students do.

Table 9: Simple Effect Test of Perception

<table>
<thead>
<tr>
<th>Types</th>
<th>Culture</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>Df</th>
<th>F-value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>High-context ad</td>
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<td>4.14</td>
<td>1.66</td>
<td>1, 79</td>
<td>12.424</td>
<td>.001</td>
</tr>
<tr>
<td></td>
<td>Korean</td>
<td>41</td>
<td>5.76</td>
<td>2.31</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-context ad</td>
<td>American</td>
<td>40</td>
<td>6.70</td>
<td>2.30</td>
<td>1, 81</td>
<td>.210</td>
<td>.648</td>
</tr>
<tr>
<td></td>
<td>Korean</td>
<td>41</td>
<td>6.49</td>
<td>2.01</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The researcher intentionally included twelve types of information in the test advertisements: value, size, quality, contents, new idea, connectivity, superiority, new product, image of users, performance, satisfaction, and company information. Six types of information (price, durability, availability, guarantees, safety, and special offer) were not included in the test advertisements, but they were used to verify the validity of the test advertisements and test procedures. As Figure 9 shows, the Korean students perceive more information from the high-context advertisement in seven categories (value, quality, contents, new idea, new product, superiority, and performance) than the American students, while the American students perceive more information in two categories (image of users and user satisfaction) than the Korean students. A few American and Korean students answered that they perceived five types of information (guarantees, safety, price, durability, and special offer) that were not included in the test advertisements.

Figure 9: Perceptions of Information from High-context Advertisement
The execution of chi-square reveals that the Korean students demonstrate a statistically significant difference in their perception of information from the high-context advertisement in six categories (value, quality, contents, new idea, new product, and performance) compared to the American students, while the American students demonstrate statistically significant differences in perception of information in two categories (image of users and user satisfaction) compared to the Korean students. The Korean students perceive more information related to superiority than the American students, but this result fell a bit short of significance at the conventional .05 level (see Table 10).

Table 10: Chi-square Test of Perception of High-context Ad

<table>
<thead>
<tr>
<th>Type</th>
<th>Value</th>
<th>Perception of information</th>
<th>chi-square</th>
<th>Asymp. Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Americans</td>
<td>Koreans</td>
<td></td>
</tr>
<tr>
<td>High context</td>
<td>Value</td>
<td>3</td>
<td>18</td>
<td>14.833</td>
</tr>
<tr>
<td></td>
<td>Quality</td>
<td>9</td>
<td>23</td>
<td>10.526</td>
</tr>
<tr>
<td></td>
<td>Contents</td>
<td>19</td>
<td>32</td>
<td>9.428</td>
</tr>
<tr>
<td></td>
<td>New idea</td>
<td>7</td>
<td>25</td>
<td>17.194</td>
</tr>
<tr>
<td></td>
<td>New product</td>
<td>5</td>
<td>16</td>
<td>8.074</td>
</tr>
<tr>
<td></td>
<td>Image of users</td>
<td>24</td>
<td>3</td>
<td>23.468</td>
</tr>
<tr>
<td></td>
<td>Performance</td>
<td>23</td>
<td>33</td>
<td>6.256</td>
</tr>
<tr>
<td></td>
<td>Superiority</td>
<td>9</td>
<td>16</td>
<td>3.052</td>
</tr>
<tr>
<td></td>
<td>Special offer</td>
<td>0</td>
<td>3</td>
<td>3.188</td>
</tr>
</tbody>
</table>

From the low-context advertisement, the Korean students perceive more information in only three categories (new product, value, and performance) compared to the American students, and the American students perceive more information in two different categories (user satisfaction and company information) compared to the Korean students (see figure 10). Both groups perceive similar information from the low-context print advertisement. A few American and Korean students answered that they perceived the six types of information (safety, price, guarantees, durability, special offer, and availability), which were not included in the test advertisements.
Figure 10: Perceptions of Information from Low-context Advertisement

The Korean students and the American students perceive similar information from the low-context print advertisement. The chi-square analysis shows that there are only two statistically significant differences in perception of information between the two cultures: the Korean students perceive more information about value than the American students, and the American students perceive more information related to user satisfaction than the Korean students. The Korean students perceive more information related to performance and new product, but this result fell a bit short of significance at the conventional .05 level. Table 11 summarizes the each meaningful Chi-square results.
Recall Test

**Test of H2:** Culture plays a role in how an individual recalls information in advertising, with Korean students recalling more information in the high-context print advertisement than American students do.

This research uses cross-cultural theories to explore differences when recalling information in high or low-context print advertisements between American and Korean students. Based on the cultural theories, Hypothesis 2 anticipates that Korean students are likely to recall more information from the high-context advertisement than American students.

Recall was measured using open-ended questions that examine how much information participants remember without referring back to the test advertisements. To effectively code the subjects’ recall answers, the researcher hired two research assistants. The predetermined 18 types of information were used as the codebook. Two coders were trained and completely understood all the conceptual definitions of information. Several sessions of practice coding and discussion were repeated to detect and modify definitional disagreement and discrepancies. First, two research assistants coded the same sets of recall answers and then compared the results. Next, the researcher and two research assistants discussed discrepancies in their coding in depth, and continued this process until an acceptable level of inter-coder agreement was reached. After these coding sessions, all recall answers were coded by two assistants respectively. Inter-coder reliability was calculated using Cohen’s kappa (kappa=.89). Answers that did not match between the two coders were re-coded with discussion.

Since Korea is associated with a collectivistic culture, the participants from this culture are expected to recall more information from high-context advertisements than the American participants.
When examining the Korean students’ recall of information from the high-context advertisement (m = 2.39), the researcher found that their mean scores are higher than the American students’ recall scores (m = 1.9). The Korean students also recall more information from the low-context advertisement (m = 3.07) than the American students (m = 2.88). Figure 11 shows the mean ratings of total recalls as a function of culture and types of advertisements.

Figure 11: Recall of Information

The test results were analyzed using the two-way Analysis of Variance (ANOVA) procedure. The results of recall test show no significant interaction effect between culture and types of context (F (1, 160) = .696, p = .405), indicating the recall of information from two types of contextual advertisements does not depend on culture (see Table 12). Therefore, H2 is not supported. The results indicate that the Korean students do not recall more information with high-context advertisements than the American students. However, the two-way ANOVA analysis shows the main effects of two factors. Context has a significant effect on the recall of information (F (1, 160) = 23.03, p = .00). Students in the low-context condition show higher recall scores (m = 2.99, S.D. = .922) than students in high-context condition (m = 2.14, S.D. = 1.27). Culture also has a main effect on recall of information (F (1, 160) = 3.93, p = .049). The Korean students (m = 2.73, S.D. = 1.089) show higher recall scores than the American students (m = 2.38, S.D. = 1.254). The results indicate that the Korean students recall more information than the
American students. Also, students recall more information from the low-context advertisement than from the high-context advertisement. Since the test results of ANOVA have no significant interaction effect, no follow-up test (simple main effect) is necessary.

Table 12: Results of Recall Test

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>1075.137</td>
<td>1</td>
<td>1075.137</td>
<td>884.292</td>
<td>.000</td>
</tr>
<tr>
<td>Culture</td>
<td>4.789</td>
<td>1</td>
<td>4.789</td>
<td>3.939</td>
<td>.049</td>
</tr>
<tr>
<td>Context (high &amp; low)</td>
<td>28.004</td>
<td>1</td>
<td>28.004</td>
<td>23.033</td>
<td>.000</td>
</tr>
<tr>
<td>Culture*Context</td>
<td>.846</td>
<td>1</td>
<td>.846</td>
<td>.696</td>
<td>.405</td>
</tr>
<tr>
<td>Error</td>
<td>194.531</td>
<td>160</td>
<td>1.216</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1299.000</td>
<td>164</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As Figure 12 shows, the Korean students recall more information from the high-context advertisement in seven categories (size, performance, connectivity, contents, new idea, value, and quality) compared to the American students, while the American students recall more information in two categories (image of users and company info) compared to the Korean students.
From the high-context condition, the execution of chi-square shows that the Korean students exhibit a statistically significant difference in recall of information about size compared to the American students, while the American students exhibit a statistically significant difference in recall of information related to company info compared to the Korean students. The Korean students recall more information about connectivity and contents than the American students, but these results are not statistically significant at the conventional .05 level. (see Table 13).

Table 13: Chi-square Test of Recall of High-context Ad

<table>
<thead>
<tr>
<th>Type</th>
<th>value</th>
<th>Perception of information</th>
<th>Df</th>
<th>chi-square</th>
<th>Asymp. Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Americans</td>
<td>Koreans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High context</td>
<td>Size</td>
<td>4</td>
<td>20</td>
<td>1</td>
<td>15.55</td>
</tr>
<tr>
<td></td>
<td>Company Info</td>
<td>19</td>
<td>8</td>
<td>1</td>
<td>6.25</td>
</tr>
<tr>
<td></td>
<td>Contents</td>
<td>5</td>
<td>9</td>
<td>1</td>
<td>1.493</td>
</tr>
<tr>
<td></td>
<td>Connectivity</td>
<td>10</td>
<td>16</td>
<td>1</td>
<td>2.233</td>
</tr>
</tbody>
</table>
Table 13- continued

<table>
<thead>
<tr>
<th>Type</th>
<th>value</th>
<th>Perception of information</th>
<th>Df</th>
<th>chi-square</th>
<th>Asymp. Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Americans</td>
<td>Koreans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New idea</td>
<td>1</td>
<td>4</td>
<td></td>
<td>1.55</td>
<td>.158</td>
</tr>
<tr>
<td>Image of users</td>
<td>20</td>
<td>14</td>
<td>1</td>
<td>2.09</td>
<td>.212</td>
</tr>
<tr>
<td>Quality</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>.293</td>
<td>.147</td>
</tr>
<tr>
<td>Performance</td>
<td>18</td>
<td>20</td>
<td>1</td>
<td>.371</td>
<td>.588</td>
</tr>
<tr>
<td>Value</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td></td>
<td>.542</td>
</tr>
</tbody>
</table>

From the low-context advertisement, the Korean students recall more information in only two categories (size and performance), and the American students recall more information in two different categories (quality and superiority) (see figure 13). No students recalled nine types of information, such as safety, special offer, availability, price, durability, guarantees, value, satisfaction, and image of users.

Figure 13: Recall of Information from Low-context Advertisement

58
The Korean students and the American students recall similar information from the low-context print advertisement. The execution of chi-square shows that there is only one statistically significant difference in recall of information between two cultures: the Korean students recall more information about performance than the American students. In addition, chi-square analysis reveals that there is no statistically significant difference in recall of two types of information (size and superiority) between the two cultures. This result fell a bit short of significance at the conventional .05 level. Table 14 summarizes the each meaningful Chi-square results.

### Table 14: Chi-square Test of Recall of Low-context Ad

<table>
<thead>
<tr>
<th>Type</th>
<th>value</th>
<th>Perception of information</th>
<th>Df</th>
<th>chi-square</th>
<th>Asymp. Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Americans</td>
<td>Koreans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low context</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performance</td>
<td>15</td>
<td>28</td>
<td></td>
<td>1</td>
<td>8.49</td>
</tr>
<tr>
<td>Size</td>
<td>21</td>
<td>30</td>
<td></td>
<td>1</td>
<td>3.71</td>
</tr>
<tr>
<td>Superiority</td>
<td>3</td>
<td>0</td>
<td></td>
<td>1</td>
<td>3.19</td>
</tr>
<tr>
<td>Quality</td>
<td>7</td>
<td>3</td>
<td></td>
<td>1</td>
<td>1.94</td>
</tr>
<tr>
<td>New idea</td>
<td>18</td>
<td>14</td>
<td></td>
<td>1</td>
<td>.998</td>
</tr>
<tr>
<td>Contents</td>
<td>11</td>
<td>13</td>
<td></td>
<td>1</td>
<td>.172</td>
</tr>
<tr>
<td>Connectivity</td>
<td>28</td>
<td>31</td>
<td></td>
<td>1</td>
<td>.322</td>
</tr>
</tbody>
</table>

**Attitude Test**

*Test of H3a:* American students will exhibit more positive attitudes toward the low-context print advertisement than Korean students do.

*Test of H3b:* Korean students will exhibit more positive attitudes toward the high-context print advertisement than American students do.

Hypotheses 3a and 3b anticipate the differences between American and Korean students’ attitudes toward high-and low-context advertisements. In examining overall attitudes toward the low-context advertisement, the American students demonstrate more positive attitudes (m = 4.47) than the Korean students (m = 3.51). There is no difference in attitude toward the high-context advertisement between the Korean students (m = 4.01) and the American students (m = 4.10) (see figure 14).
results from the attitude test were examined for reliability using Cronbach’s alpha. The reliability of attitude toward advertisements was 0.91.

![Figure 14: Attitude toward Advertisements](image)

The test results were analyzed using a two-way Analysis of Variance (ANOVA) procedure. The result of attitude test shows a significant interaction effect between culture and types of context ($F(1, 160) = 6.74, p = .01$), indicating the attitude toward the two types of contextual advertisements depends on culture (see Table 15). Culture has a significant effect on attitude ($F(1, 160) = 9.99, p = .002$) while context has no main effect on it.

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>2656.686</td>
<td>1</td>
<td>2656.686</td>
<td>2316.966</td>
<td>.000</td>
</tr>
<tr>
<td>Context (high &amp; low)</td>
<td>.170</td>
<td>1</td>
<td>.170</td>
<td>.148</td>
<td>.701</td>
</tr>
<tr>
<td>Culture*Context</td>
<td>7.731</td>
<td>1</td>
<td>7.731</td>
<td>6.742</td>
<td>.010</td>
</tr>
<tr>
<td>Error</td>
<td>183.460</td>
<td>160</td>
<td>1.147</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2857.127</td>
<td>164</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Since the test results of ANOVA demonstrate a significant interaction effect, the follow-up test (simple main effect) was conducted because the interaction effect indicates that the scores on the dependent variable (attitude) are affected by the particular combination of the levels of the independent variables (culture and context). The simple main effects isolate the levels of a variable and compare the means of those groups in order to investigate where the differences among the interactions are. The simple main effects were acquired using the option with ANOVA.

Simple main effect analysis shows that the American students demonstrate more positive attitudes toward the low-context advertisement than the Korean students (F(1,81) = 16.37, p = .00). The Korean students, categorized as a collectivistic culture, were hypothesized to demonstrate higher attitudes toward the high-context advertisement than the American students. However, there are no significantly different attitudes toward the high-context advertisement between the Korean students and the American students (F(1,79) = .161, p = .689). Therefore, H3a is supported, but H3b is not supported (see Table 16). This result supports the hypothesized relationship with the American respondents displaying more favorable attitudes toward the low-context advertisement than the Korean students.

<table>
<thead>
<tr>
<th>Types</th>
<th>Culture</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>df</th>
<th>F-value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-context ad</td>
<td>Americans</td>
<td>40</td>
<td>4.47</td>
<td>1.16</td>
<td>1, 79</td>
<td>16.376</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Koreans</td>
<td>41</td>
<td>3.51</td>
<td>.877</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High-context ad</td>
<td>Americans</td>
<td>42</td>
<td>4.10</td>
<td>1.10</td>
<td>1, 81</td>
<td>.161</td>
<td>.689</td>
</tr>
<tr>
<td></td>
<td>Koreans</td>
<td>41</td>
<td>4.01</td>
<td>1.10</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Attitude toward advertisements represents an individual’s degree of like or dislike for advertisements. Subjects were asked to provide their attitude toward the test advertisement on 7 item scales: impressive, appealing, liking, eye-catching, good, attractive, and believable. As summarized in Table 14, the American students and the Korean students do not show different attitudes toward the high-context advertisement. However, when seven attitude questions are respectively examined, the American students exhibit more positive attitudes than the Korean students toward the high-context advertisement on two scales: attractive and eye-catching (see Figure 15). The researcher ran an individual sample t-test to find any statistically significant differences in each scale item.
The t-test analysis does not reveal any statistically significant differences in attitudes on seven items toward the high-context advertisement between the American and the Korean students (see Table 17). The American students demonstrate more positive attitudes in scales of attractive (m = 4.36; t = 1.72, df = 81, p = .89) and eye-catching (m = 4.17; t = 1.70, df = 81, p = .92) than the Korean students, but these results are not statistically significant at the conventional .05 level.

Table 17: T-test of Attitude toward High-context Ad on 7 items

<table>
<thead>
<tr>
<th>Value</th>
<th>Americans</th>
<th>Koreans</th>
<th>t-value</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attractive</td>
<td>4.36</td>
<td>3.81</td>
<td>1.72</td>
<td>81</td>
<td>.089</td>
</tr>
<tr>
<td>Eye-catching</td>
<td>4.17</td>
<td>3.60</td>
<td>1.70</td>
<td>81</td>
<td>.092</td>
</tr>
<tr>
<td>liking</td>
<td>3.95</td>
<td>4.23</td>
<td>1.05</td>
<td>81</td>
<td>.294</td>
</tr>
<tr>
<td>Impressive</td>
<td>3.79</td>
<td>3.64</td>
<td>0.459</td>
<td>81</td>
<td>.676</td>
</tr>
<tr>
<td>Believable</td>
<td>4.36</td>
<td>4.44</td>
<td>0.276</td>
<td>81</td>
<td>.783</td>
</tr>
<tr>
<td>Good</td>
<td>4.21</td>
<td>4.27</td>
<td>0.194</td>
<td>81</td>
<td>.847</td>
</tr>
<tr>
<td>Appealing</td>
<td>3.90</td>
<td>3.89</td>
<td>0.039</td>
<td>81</td>
<td>.969</td>
</tr>
</tbody>
</table>
The ANOVA analysis shows that the American students demonstrate more positive attitudes toward the low-context advertisement than the Korean students. When seven attitude questions are respectively examined, the American students exhibit more positive attitudes than the Korean students toward the low-context advertisement on six scales: impressive, eye-catching, attractive, liking, appealing, believable, and good (see Figure 16). The researcher ran individual sample t-test to find any statistically significant differences in each scale item.

As expected, t-test analysis shows that the American students exhibit statistically significant differences in attitudes toward the low-context advertisement compared to the Korean students on six scales: good (t = 3.52, df = 79, p = .00), appealing (t = 4.88, df = 79, p = .00), impressive (t = 4.61, df = 79, p = .00), attractive (t = 4.01, df = 79, p = .00), eye-catching (t = 4.28, df = 79, p = .00), and liking (t = 2.91, df = 79, p = .00) (see Table 18).
Table 18: T-test of Attitude toward Low-context Ad on 7 items

<table>
<thead>
<tr>
<th>value</th>
<th>Americans</th>
<th>Koreans</th>
<th>t-value</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>4.75</td>
<td>3.83</td>
<td>3.52</td>
<td>79</td>
<td>.000</td>
</tr>
<tr>
<td>Appealing</td>
<td>4.60</td>
<td>3.24</td>
<td>4.88</td>
<td>79</td>
<td>.000</td>
</tr>
<tr>
<td>Impressive</td>
<td>4.13</td>
<td>2.71</td>
<td>4.61</td>
<td>79</td>
<td>.000</td>
</tr>
<tr>
<td>Attractive</td>
<td>4.43</td>
<td>3.20</td>
<td>4.01</td>
<td>79</td>
<td>.000</td>
</tr>
<tr>
<td>Eye-catching</td>
<td>4.30</td>
<td>2.95</td>
<td>4.28</td>
<td>79</td>
<td>.000</td>
</tr>
<tr>
<td>liking</td>
<td>4.47</td>
<td>3.66</td>
<td>2.91</td>
<td>79</td>
<td>.005</td>
</tr>
<tr>
<td>Believable</td>
<td>4.65</td>
<td>4.61</td>
<td>.146</td>
<td>79</td>
<td>.884</td>
</tr>
</tbody>
</table>

Summary of the Results

The test of hypotheses indicated that H1 and H3a were both statistically significant, while the test for H2 and H3b were not statistically significant. The results of the experiment indicate that cultural differences in individualism scales between Americans and Koreans are very clear. The American students are classified as individualistic, while the Korean students are classified as collectivistic.

With respect to H1, the Korean subjects show higher ratings for perceptions of information in a high-context advertisement than the American subjects, as hypothesized. Although the American students perceive more information from the low-context advertisement than the Korean students, this result is not significant at alpha of 0.05.

The test of H2 reveals that there are no differences in recalling information in high- or low-context print advertisements between the American students and Korean students. The Korean students recall more information from both the high-context and low-context advertisements than the American students; however, this result is not within a level of significance at alpha of 0.05.

The test result for H3a is significant. The American subjects show significantly more favorable attitudes toward the low-context advertisement than the Korean students. However, there is no statistically significant difference in attitude toward the high-context advertisement between American and Korean students. Therefore, H3b is not supported.
CHAPTER FIVE
CONCLUSIONS

The purpose of this study is to investigate whether people in individual or collective cultures have different perceptions of information, recall of information, and attitudes toward advertisements providing information in high- or low-context conditions. The results indicate that students in individualistic and collectivistic cultures respond differently to advertisements that embed information in high or low context designs. Korean students perceive more information than American students from images, moods, and symbols. American students demonstrate a more positive attitude toward low-context advertisement than Korean students.

This chapter discusses the study findings detailed in the previous chapters. The theoretical and managerial implications from the results of this study are explored. Finally, the limitations of the research with suggestions and possibilities for further research are discussed.

Discussion of the Results

Perception. The way a message is conveyed (pictorially or verbally) has a significant effect on perception (Edell & Staelin, 1983). The definition of perception used in the current study is borrowed from Schiffman and Kanuk’s (1991) research, where they define it as “the process by which an individual selects, organizes, and interprets stimuli into a meaningful and coherent picture of the world” (p. 147). The Korean students perceive more information from visuals and mood, and the American students perceive more information when it is directly presented. With respect to H1, the Korean subjects show higher ratings for perceptions of information in a high-context advertisement than the American subjects, as hypothesized. This result is also consistent with the expectation based on the cultural differences from the previous studies (Bang & Moon, 2002; Bu, Kim, & Lee, 2009; Choi & Miracle, 2004; Weun et al., 2004). Because Koreans live in a high context and collectivistic culture, they are familiar with advertisements that emphasize mood and visuals. Also, the American students perceive slightly more information than the Korean subjects in a low-context advertisement. This result partially supports the idea that Americans who live in a low context and individualistic culture are accustomed to advertisements that clearly offer product benefits and articulate reasons to purchase.

Interestingly, the American and the Korean students perceive different types of information from each high- and low-context advertisement. The Korean students perceive more information from the
high-context advertisement in six categories (value, quality, content, new idea, new product, and performance) compared to the American students, and the American students perceive more information in two categories (image of users and user satisfaction) compared to the Korean students. This result confirms that visual or pictorial information in advertisements is complicated and students from different cultures have a different understanding of information. The Korean students and the American students, however, perceive similar information from the low-context print advertisement.

Recall. Recall used in the study of human memory processes is defined as “the act of retrieving information or events from the past while lacking a specific cue to help in retrieving the information” (Encyclopedia Britannica, 2002, p. 976). It was anticipated that Korean students are likely to recall more information from a high-context advertisement and that American students' recall of information from advertisements are will be more bound to text. The Korean students recalled more information from both the high-context and low-context advertisements than the American students. However, the test of H2 reveals no statistically significant difference in the recall of information in high- or low-context print advertisements between the American and the Korean students. Thus, H2 is not supported.

The recall of information between the American and Korean students from 18 information categories was similar. The Korean students recall more information from the high-context advertisement in only one category (size), and the American students recall more information in company information. The Korean students and the American students recall similar information from the low-context print advertisement. The Korean students recall more information than the American students in just one category (performance) from the low-context advertisement. These results suggest that recall of information between two cultures is not much different.

Even though H2 is not supported, the two-way Anova test reveals that culture and context have main effects on recall of information. This result indicates that students recall more information from low-context advertisement than high-context advertisement, and students presenting collectivistic culture recall more information than student presenting individualistic culture. In other words, the cultural characteristics suggest that in comparison with Americans, Koreans are likely to recall more information provided in advertisement. This result partially supports Schmitt, et al.'s (1994) study comparing the different recall of information between audiences in Eastern and Western countries. They reveal that native Chinese speakers seem to be more likely to recall information with visual memory than native English speakers.
An interesting result of the recall test is that the American students remember relatively simple information, while the Korean students display a more in-depth understanding of the information from the high-context advertisement. Translated examples of the Korean students’ answers include: “the slim female model reminds me of the look of the phone”; “the female model seems to enjoy using the phone, and it would be pleasant for me to use it”; “the phone looks luxurious and exclusive”; “winter background and the pile of phones means that it is a Christmas gifts.” The American students, however, simply provided information they could recall. For example, the American students’ answers are: “there was a girl holding the phone”; “it did multimedia messaging”; “it explains how fast phone is.” This result implies that Korean students tend to process and comprehend more visual or pictorial information in high-context advertisement than the American students.

**Attitude.** This study expected differences between American and Korean students’ attitudes toward high and low-context advertisements. *Attitudes toward advertisements* represent an individual’s degree of like or dislike for advertisements or, in this study, a respondent’s degree of like or dislike toward two types of print advertisements (high-context vs. low-context). High-context print advertising is characterized by the use of indirect communication such as less copy and more symbols (e.g., images). Low-context print advertising uses more direct communication using copy, facts, data and argumentation than high-context advertising (De Mooij, 1997). The result for H3a is significant. The American subjects show significantly more favorable attitudes toward the low-context advertisement than the Korean students. However, there is no significant difference in attitude toward the high-context advertisement between the American students and the Korean students.

This study demonstrates that culture-relevant advertising appeals are partially effective. Consumers do not respond differently to high-context advertisements based on their individualistic versus collectivistic cultural orientation. Advertising that emphasizes low-contextual appeals may be effective in American culture but are less successful in Korean culture. Consumers in both countries react more favorably to high-contextual than low-contextual appeals. Interestingly, American students show more favorable attitudes toward advertisements than the Korean students. Only a few studies have made cross-cultural comparisons of general attitudes towards advertising. Yoon et al. (1996) revealed that Americans generally displayed more positive attitude toward advertising than Koreans.

Overall subjects’ attitudes toward test advertisements were positive. Considering that public attitude toward advertising is generally negative (Alwitt & Prabhaker, 1994; Zanot, 1981), subjects showed relatively good attitudes toward the test advertisements. Ducoffe (1996) indicates that
consumers’ attitudes toward advertising tend to be more positive if advertising messages are simply relevant to consumer concerns at the time of exposure. This study chooses mobile phones as the product for the advertisements because they are a personal product that is widely purchased and familiar to college students in both countries. Relatively high mean scores of subjects toward mobile phone and technology indicate that mobile phones are a proper product category for the test advertisements and are in accordance with the purpose of the study.

**Discussion of Culture**

People can communicate, perpetuate, and develop their own knowledge and attitudes towards life by means of culture (Geertz, 1973). It is believed that people in the same culture have a generally accepted pattern of thinking, feeling, and a similar likelihood for potential action (Hofstede, 1994). However, new arguments claim that the Internet and modern technologies are changing culture. Rettie (2000) asserts that the Internet is stimulating cultural change, and this is more likely to occur in younger internet users. He insists that the culture of the younger generation may differ from that of their parents' generation. Johnston and Parminder (1999) explore changing cultural concepts and find that web users are citizens of the virtual community, and the culture of this community is created beyond the level of region and nation through communication and socialization on the Internet. Nicovich and Cornwell (1998) indicate that the Internet is seen as enhancing cross-cultural communication and hence lowering the barriers between cultures. Also, there are other sources of new communication that increase cultural change and cross-cultural contact such as weblogs, internet messenger chats, and emails. These technologies seem to increase cross-cultural fertilization and reduce national cultural differences because they enable web users to make, build and renew connections with people who are geographically dispersed (Rettie, 2000).

This study partially supports the notion that the cultural differences are occurring for the young generation. The contextual differences between Americans and Koreans are not supported in high-context condition. Koreans still seem to be more comfortable with high-context culture that uses indirect and ambiguous messages, but Americans tend to be moving to a high-context culture from a low-context culture.

**Individualism.** Hofstede (1980) discusses the individual and collective dimensions on which cultures differ. Hofstede defines individualism as "a preference for a loosely knit social structure in which individuals take care of themselves and their immediate families only" and collectivism as "a tightly knit social organization in which individuals can expect other in-group persons to look after
them" (p. 87). Individualism and collectivism illustrate the relationship between the individual and the collective that prevails in a given society. Hofstede (1980, 1983) suggests the differences between the cultures of the United States and Korea in terms of individualism and collectivism. The United States ranked at the top with a score of 91 as the most individualistic culture, whereas Korea ranked 43rd with a score of 18 out of fifty countries, indicating a more collectivistic culture.

Although scholars insist that the culture of the younger generation may differ from that of their parents' generation, this study suggests that U.S. culture can still be considered as individualistic, while Korean culture can still be considered as collectivistic. These results are consistent with the expectation of this study based on the cultural theories. The interests of the individual still prevail in the U.S., but this relationship is reversed in Korea.

However, this research suggests scholars need to reconsider one of Hofstede’s assumptions about individualism and national wealth. He demonstrates that “across all forty countries, there is a striking .82 correlation between individualism and wealth” (Hofstede, 1980, p. 231). Hofstede finds that wealthy countries (e.g., the U.S., Australia, and Great Britain) are the most individualistic countries, but poor countries (e.g., Colombia, Venezuela, Taiwan, and Korea) are the most collectivistic countries. Korea has a market economy which ranks 15th in the world by nominal GDP, identifying it as one of the G-20 major economies in 2010. Since Korea becoming wealthy country is still in collectivistic culture, scholars need to reconsider Hofstede’s assumptions about individualism and national wealth.

**Context.** Hall (1976) defines context in one sense as “one of many ways of looking at things” (p. 98). Dervin (1996) defines context as “every possible attribute of person, culture, situation, behavior, organization, or structure” (p. 14) and “a necessary source of meaning” (p. 19). Hall explains low-context transactions can be characterized as direct information and meaning that is in the receiver and in the setting, with only minimal preprogrammed information (context) in the transmitted message. High context transactions, however, are the reverse. Hall (1976) suggests the United States and some Western European countries are low-context cultures and that Korea, Japan, and Taiwan are high-context cultures. Scholars support Korea’s classification as a high-context culture (Gudykunst et al., 1987; Kim, 1985; Talyor et al., 1997).

The contextual differences between Americans and Koreans are partially supported in this study. ANOVA analysis shows that context has no main effect on attitude, but culture has a significant main effect on it. There is no significant difference in attitude toward the high-context advertisement between the American students and the Korean students, while the American students show significantly more
favorable attitudes toward the low-context advertisement than the Korean students. When comparing the American students’ attitude toward high- and low-context advertisements, they are equally favorable to both contextual advertisements. The Korean students, however, show more favorable attitude toward high-context than low-context advertisement. There is no difference between the American students and the Korean students’ perception of information from low-context advertisements and recall of information from the high- and low-context advertisement.

The above results indicate that Koreans still are a collectivistic culture and tend to be more comfortable with high-context culture that uses indirect and ambiguous messages. Americans are classified as an individualistic culture, but they are not clearly a low-context culture. They tend to be moving to a high-context culture from a low-context culture. The cultural differences between the U.S. and Korea can be summarized on two dimensions, which are (1) individualism or collectivism and (2) high or low cultural context (see Figure 17). This dimension is modified from the suggested model of Taylor et al. (1997).

It is quite clear that our societies are experiencing rapid and dramatic technical change over the last century. The spread of Internet and email access as well as massive levels of international travel may increase cultural change. This study partially supports the notion that the cultural differences are occurring for the young generation as described in the above discussion. Therefore, this study suggests not only creating a new cultural model to cope with this new Internet and technology culture for younger people but also to verify existing culture models.
Implications

This study focuses on the internal cognition of individual users in a cultural context even though most research in information behavior has concentrated on the external behavior of people and the interactions with an information system. By using a theory-based dimension already identified in previous cross-cultural research, this study captures meaningful differences in perception, recall, and attitude of two cultures.

The findings of this study may benefit information professionals who are looking for an effective way of conveying information to the intended audiences. This study reveals that people in a collectivistic culture (Koreans) prefer information in visual and pictorial messages, while people in an individualistic culture (Americans) like information in text with visuals. Koreans showed a more favorable attitude to messages in high-context condition than low-context condition. Americans were equally favorable to messages in high-context condition than low-context condition. Therefore, when information professionals develop information materials, they should consider the differences between people in individualistic or collectivistic culture and advantages of using visuals to convey information. This result implies that Korean students tend to process and comprehend more visual or pictorial information than American students.

Methodologically, the current study has implications for cross-cultural research. This research represents one of a few comprehensive cross-cultural studies using an experimental method and contributes to multicultural studies in understanding the individual’s perception and recall of information and attitudes based on culture. The standardized procedures and measures of the experimental method allow it to be easily repeated in the future.

This research has strong theoretical and managerial implications for businesses developing cross-cultural communications. Marketers continue to be confronted with the question of whether to standardize or specialize (or localize) their commercial messages. Proponents of specialization argue that marketers must consider different local market conditions and cultural uniqueness (Taylor et al., 1994), while opponents assert the benefits of economic savings and a shared global brand (Britt, 1974). This study reveals that cultural differences have impact on perception of information, recall of information, and attitude toward advertisements. Since the cultural differences in ads are still effective, those will be barriers in adopting a standardized strategy (Mueller, 1992). Given these result, this study supports that marketers customize messages for local markets. This finding hopefully will benefit marketers in the adoption and development of advertising strategies in their culturally diverse markets.
Limitations

Even though this study confirmed several hypotheses, the limitations need to be discussed because understanding the limitations is useful when applying the results to other people and other cultures. The two versions of the test advertisements were pretested and revised in accordance with the intent of this study. However, although test advertisements were developed to reflect the real market situation, those cannot mirror a real setting. Unlike natural viewing situations, laboratory experiments make subjects to watch advertisements in an artificial environment. Therefore, the results can be influenced by bias from test advertisements and experimenter bias. Also, while the researcher tried to ensure that the product used in this study is a familiar one for the population, it is possible that the perceptions, recall, and attitude could differ if other products were used in the study.

Although college students in both countries constitute an important part of the mobile phone market, student samples are also often criticized for their lack of representability and for convenience sampling. While American student subjects drawn from FSU may come from various locations, differences may exist between them and students from other universities and geographical regions. Furthermore, the American sample represented more men than women and was mostly drawn from the information technology major. Those characteristics of the American sample need to be taken into account in applying the findings. For example, the higher recognition and recall score in the category of image of user may be caused by a disproportion of American male and female sample.

The Korean participants were made up of students enrolled in FSU or Center for Intensive English Studies (CIES) programs. Since the Korean student’ population at FSU is not large, there is a possibility that differences may exist in between samples at FSU and samples from Korea. Also, differences may exist between the Korean subjects who stay in the U.S. more than 5 years (18%) and newcomers. In addition, the findings of this study do not provide the ground for generalization to multiple countries because the results are based on only two countries: the U.S. and Korea.

There were no significant differences between the Americans’ and the Koreans’ recall of information from the high-context advertisement. One of the reasons why the recall test was not significant is that recall test was measured shortly after test advertisements were presented. Although subjects were exposed to the enough time to the test advertisements in the experiment, one time exposure to the advertisements may not have been enough for subjects to process the messages.

Future Research
This study examines two cultural theories of individualism and context, which have been identified as the broadest and most widely used theories for cultural comparison (Hall, 1976; Hofstede, 1980; Hui, 1984). However, many cultural theories have been developed to understand how culture influences individuals’ social behavior. In addition to individualism/collectivism, Hofstede (1980, 1994) suggests masculinity, power distance, uncertainty avoidance, and long term/short term orientation. Hall (1966) explored two other cultural factors: time and space. Hall discusses that high-context cultures tend to have a very fast information flow while low-context cultures tend to be much slower. Komlodi and Carlin (2004) also explain that the speed of messages necessarily influences the relationship between information and culture. Masuda and Nisbett (2001) developed the holistic/analytic cultural dimension when comparing the context sensitivity of Japanese and Americans. Therefore, extensions and replications of this study to multiple countries using diverse cultural theories are recommended in order to develop strong cultural and theoretical implications. Also, a new or modified cultural model is required to cope with the new Internet and technology culture.

Future research should replicate this study using another experimental procedures, materials, and subjects because the shortcomings of this study are inherent to the experimental design. For example, subjects’ repeated exposure to a test advertisement in a period of time (e.g. every week) may allow the research to better measure recall of information. Repetition enhances recall by increasing the opportunity to process the advertisement (Krugman, 1972). Different exposure time to a test advertisement may be a possible treatment. Samples also need to be selected from the population in various cultures. Eye tracking method (Yang, 2009) to measure cultural differences in attention on information may possibly be applied to future research. Different test materials and media (i.e., TV, outdoor, Internet, and radio) with various product categories need to be developed besides print advertisements. Future experiments should establish a higher level of control over the environment, variables, and subjects.

**Summary of Conclusion**

This study investigates whether people in individual or collective cultures have different perceptions of information, recall of information, and attitudes toward advertisements providing information in high- or low-context conditions. Although this study could not provide strong evidence that there are cultural differences in recalling information, students in individualistic and collectivistic cultures respond differently to advertisements providing information in high or low context conditions. Korean students perceive more information than American students from images, moods, and symbols.
American students show a more positive attitude toward low-context advertisement than Korean students. In conclusion, the findings obtained in this study suggest several exciting opportunities for future research to explore cross-cultural differences in perceiving and recalling information.
APPENDIX A

IRB APPROVAL LETTER

Office of the Vice President For Research
Human Subjects Committee
Tallahassee, Florida 32306-2742
(850) 644-8673, FAX (850) 644-4392

APPROVAL MEMORANDUM

Date: 2/3/2011

To: Ji-Hyun Kim

Address: 101 Louis Shores building, 142 collegiate loop, FSU, Tallahassee, FL 32306
Dept.: INFORMATION STUDIES

From: Thomas L. Jacobson, Chair

Re: Use of Human Subjects in Research
PERCEIVING AND RECALLING INFORMATION: A CROSS-CULTURAL COMPARISON OF AMERICAN AND KOREAN STUDENTS

The application that you submitted to this office in regard to the use of human subjects in the proposal referenced above have been reviewed by the Secretary, the Chair, and two members of the Human Subjects Committee. Your project is determined to be Expedited per 45 CFR § 46.110(7) and has been approved by an expedited review process.

The Human Subjects Committee has not evaluated your proposal for scientific merit, except to weigh the risk to the human participants and the aspects of the proposal related to potential risk and benefit. This approval does not replace any departmental or other approvals, which may be required.

If you submitted a proposed consent form with your application, the approved stamped consent form is attached to this approval notice. Only the stamped version of the consent form may be used in recruiting research subjects.

If the project has not been completed by 2/1/2012 you must request a renewal of approval for continuation of the project. As a courtesy, a renewal notice will be sent to you prior to your expiration date; however, it is your responsibility as the Principal Investigator to timely request renewal of your approval from the Committee.

You are advised that any change in protocol for this project must be reviewed and approved by the Committee prior to implementation of the proposed change in the protocol. A protocol change/amendment form is required to be submitted for approval by the Committee. In addition, federal
regulations require that the Principal Investigator promptly report, in writing any unanticipated problems or adverse events involving risks to research subjects or others.

By copy of this memorandum, the Chair of your department and/or your major professor is reminded that he/she is responsible for being informed concerning research projects involving human subjects in the department, and should review protocols as often as needed to insure that the project is being conducted in compliance with our institution and with DHHS regulations.

This institution has an Assurance on file with the Office for Human Research Protection. The Assurance Number is IRB00000446.

Cc: Melissa Gross, Advisor [mgross@fsu.edu]
HSC No. 2010.5197
APPENDIX B
CONSENT FORM

FSU Behavioral Consent Form

You are invited to participate in a consumer study, testing consumers’ reaction to a new advertisement. You were selected as a possible participant because this research examines undergraduate and graduate students’ reactions to an advertisement. The researcher gets your name and email address from the student mailing list of School Library and Information Studies. Please read this form and ask any questions you may have before agreeing to be in the study.

This study is being conducted by Ji-Hyun Kim, a doctoral candidate under the direction of Dr. Melissa Gross in the College of Communication and Information, Florida state University.

Background Information:
The purpose of this study is to improve understandings of multicultural information processing and advertising effectiveness in the global market.

Procedures:
If you agree to be in this study, you will be asked to do the following things:
- You will see a newly launched advertisement and be asked to fill out questionnaires regarding your understanding of the advertisement.
- The questionnaires are a total of five pages long and should not take more than about thirty minutes for you to complete.

Risks of being in the Study:
This study does not present any more than minimal risk. The copies and images of the test advertisement for this experiment do not contain sensitive materials and the questions on the surveys are not sensitive in nature. Your participation is voluntarily. If you feel any discomfort during the experiment, please stop the experiment and tell the researcher.

Benefits of being in the Study:
This study offers two primary benefits. First, you will have the opportunity to discuss your insights, experience of, and preferences for advertisements. This information is invaluable for the researcher and will inform basic research in the field of library and information studies. Second, the findings and analyses will benefit marketers in the adoption and development of advertising strategies in culturally diverse markets. Marketers may improve the effectiveness of advertising strategies in markets, so you will more easily find information you want in ads than before.
Compensation:

You will have a chance to win an iPod through a lottery drawing.

Confidentiality:

The records of this study will be kept private and confidential to the extent permitted by law. The results of the research study may be published, but your name and email address will not be used. Your identity will not be associated with your responses in any published format.

Research records will be stored securely. Paper records will be protected in a locked cabinet and e-filed data will be kept in password protected laptop. Only the researcher will have access to the records. The records will be destroyed no later than five years from the year of the study completed (Aug. 20, 2011).

Voluntary Nature of the Study:

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with the University. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

Contacts and Questions:

The researcher conducting this study is Ji-Hyun Kim. You may ask any questions you have now. If you have a question later, you are encouraged to contact Ji-Hyun Kim [PERSONAL INFORMATION OMITTED DUE TO PRIVACY] at Florida State University or Dr. Melissa Gross (mgross@fsu.edu).

Your will be given a copy of information to keep for your records.

Statement of Consent:

I have read the above information. I have asked questions and have received answers. I consent to participate in the study.

________________  _________________  
Signature                                          Date

________________  _________________  
Signature of Investigator                    Date
Dear Participants:

Thank you for your participation in this research. The purpose of this study is to test consumers’ reaction to a new advertisement. Your participation will involve answering questions by checking boxes and writing your responses.

Please, follow the instruction of the researcher. You will first see a new advertisement. Please, carefully read every component of the test advertisements until you come to thoroughly understand the advertisement, especially visuals and body copy. Then, you will be asked to fill out the questionnaires regarding your understanding of the advertisement. The questionnaires are a total of five pages long and should not take more than about thirty minutes for you to complete. For your convenience, we will have a short break during this experiment.

Your participation is important and will help us improve this advertisement before it runs in a magazine. Your opinion is invaluable for the researcher and will inform basic research in the field of information studies. You may choose not to participate at any time. The results of the research study may be published, but your name will not be used. Your identity will not be associated with your responses in any published format.
APPENDIX D

SOCIO-DEMOGRAPHIC DATA

1. What is your gender? M F

2. What is your birth year? 19(   )

3. What is your country of origin?
   □ The U.S.
   □ Korea
   □ Other (please specify)______________________

4. What is your native language spoken?
   □ English.
   □ Korean
   □ Other (please specify)______________________

5. How long have you lived in the U.S? _________________

6. Do you own a cell phone? Yes (   ) No (   ) What kind? _________________

7. How many cell phones have you owned?__________________

8. How interested are you in a new cell phone?
   [________] [________] [________] [________] [________] [________] [________] [________]
   Strongly Uninterested          Strongly Interested

9. Do you have a favorite cell phone brand? Yes (   ) No (   ) If so, what is it? _________________

10. Do you like new technology?
    [________] [________] [________] [________] [________] [________] [________] [________]
    Not at all          Very much

11. What is your Major? ______________________

12. What is your year in college?
    □ Freshman
    □ Sophomore
    □ Junior
    □ Senior
    □ Graduate
    □ Other (please specify)______________________
## APPENDIX E

### PERCEPTION MEASURE

<table>
<thead>
<tr>
<th>Check here</th>
<th>Types of Information</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>O</td>
<td>Price</td>
<td>Refers to the amount the consumer must pay for the product or service in relative terms</td>
</tr>
<tr>
<td>O</td>
<td>Value</td>
<td>Refers to some combination of price and quality or quantity, as in better quality at a low price or best value for the dollar</td>
</tr>
<tr>
<td>O</td>
<td>Size</td>
<td>Refers to the physical size or capacity of the product, how long, tall, wide, heavy, and capacity to do particular size tasks</td>
</tr>
<tr>
<td>O</td>
<td>Availability</td>
<td>Any information concerning the place(s) where the consumer may purchase or otherwise obtain the product</td>
</tr>
<tr>
<td>O</td>
<td>Quality</td>
<td>Refers to how good the product or service is</td>
</tr>
<tr>
<td>O</td>
<td>Durability(reliability)</td>
<td>Information concerning how long the product will last without repair, service records, and other related items</td>
</tr>
<tr>
<td>O</td>
<td>Contents (multi components)</td>
<td>Information that may provide value for an users in specific contexts/media or what went into the making of the product</td>
</tr>
<tr>
<td>O</td>
<td>Guarantees/warranty</td>
<td>Refers to any information concerning the presence of a guarantee or warranty</td>
</tr>
<tr>
<td>O</td>
<td>Safety</td>
<td>Information concerning the safety of the product</td>
</tr>
<tr>
<td>O</td>
<td>New product (Improved features)</td>
<td>Refers to any information concerning a new product introduction, or new components, ingredients, or features of an existing product</td>
</tr>
<tr>
<td>O</td>
<td>Connectivity (convenience in use)</td>
<td>Refers to how easy and well the product may be used or connected</td>
</tr>
<tr>
<td>O</td>
<td>Superiority claim</td>
<td>Information that claims the advertised product is better than competitive products or better than an older version of the advertised product in some particular ways</td>
</tr>
<tr>
<td>O</td>
<td>Special offer or event</td>
<td>Information concerning special events such as sales, contests, two-for-one deals, premiums, or rebates</td>
</tr>
<tr>
<td>O</td>
<td>New ideas(new uses)</td>
<td>Refers to any information about a new way to use an established product</td>
</tr>
<tr>
<td>O</td>
<td>Image of users</td>
<td>Refers to any information concerning the type(s) of individual(s) who might use the advertised product</td>
</tr>
<tr>
<td>O</td>
<td>Performance (multi-function)</td>
<td>Any information concerning the outcomes associated with the use of a product</td>
</tr>
<tr>
<td>O</td>
<td>User’s satisfaction</td>
<td>Refers to any information concerning users’ satisfaction, dedication, preference for the advertised product</td>
</tr>
<tr>
<td>O</td>
<td>Company information</td>
<td>Refers to any information about the image or reputation of the company that manufactures or distributes the product</td>
</tr>
</tbody>
</table>
APPENDIX F
INDIVIDUALISM MEASURE

Read each of the statements in this instrument and select the response that you believe best indicates how well these statements describe you.

<table>
<thead>
<tr>
<th>statement</th>
<th>Strongly Disagree</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I take great pride in accomplishing what no one else can accomplish</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>It is important to me that I perform better than others on a task</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>I tend to do my own thing, and others in my family do the same</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>I am unique-different from others in many respects</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>I like my privacy</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>I state my opinions clearly</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>I know my weakness and strengths</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is pleasant for me to spend time with others</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>I feel obligated to help members of my social group(s)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>To understand who I am, you must see me with members of my group(s)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>I make an effort to avoid disagreements with my group members</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Before making a decision, I always consult with others</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>I have respect for the authority figures with whom I interact</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Family members should stick together, no matter what sacrifices are required</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>
APPENDIX G
RECALL MEASURE

What information can you remember from the test advertisements?

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 
9. 
10. 
11. 
12. 
13. 
14. 
15. 
16.
## APPENDIX H
### ATTITUDE MEASURE

<table>
<thead>
<tr>
<th>Bad</th>
<th>Good</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unappealing</td>
<td>Appealing</td>
</tr>
<tr>
<td>Unimpressive</td>
<td>Impressive</td>
</tr>
<tr>
<td>Unattractive</td>
<td>Attractive</td>
</tr>
<tr>
<td>Non eye-catching</td>
<td>Eye-catching</td>
</tr>
<tr>
<td>Unbelievable</td>
<td>Believable</td>
</tr>
<tr>
<td>Overall disliking</td>
<td>Overall liking</td>
</tr>
</tbody>
</table>

Thank you a lot!
APPENDIX I

DRAFT OF HIGH-CONTEXT ADVERTISEMENT (VER.1)
APPENDIX J
DRAFT OF HIGH-CONTEXT ADVERTISEMENT (VER.2)
APPENDIX K

DRAFT OF LOW-CONTEXT ADVERTISEMENT

BE SMART
DO GALAXIA

Thin and advanced design
Perfect sized device for easy control. Small but mighty. This phone fits conveniently in your pocket, purse, or the palm of your hand.

Do it all. At once.
Now you can run your favorite third-party apps and switch between them instantly without slowing down the performance of the foreground app.

Seamless communication
Galaxia keeps you connected with anyone, anytime. A combined inbox compiles all your work and personal emails, calendar events and more.

Make a good thing even better
This phone has a front-facing 10megapixel camera, GPS, superior web video and gaming, spoken commands, turn directions, viewing real time traffic.

Your social hub
As your social hub, download network tools and fast access to sites like Facebook, Twitter, and MySpace. Interactive touch screen lets you control your phone.

EVENT one
Send us your opinion about galaxia to www.galaxia.com/event1

EVENT two
Come to galaxia party! Find information from website www.galaxia.com/event2

87
REFERENCES


Ji-Hyun Kim completed his doctoral degree at Florida State University, College of Communication and Information Studies. Prior to beginning his doctoral studies he worked as an assistant manager at LG and as a staff at Deahong in Korea. He also worked as an instructor at Florida State University and Honam University. During his doctoral program, he was involved in various research projects regarding information behavior in new media environment. Ji-Hyun Kim received his Bachelor degree in Russian from Korean University. He holds the Master of Arts in Mass Communication from University of Oklahoma and Hanyang University.