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UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

'THROUGH WHICH CHANNEL, WITH WHAT EFFECT:' THE IMPACT OF CHANNEL ON VOTER LEARNING AND CANDIDATE EVALUATION FROM POLITICAL MESSAGES

A Dissertation

SUBMITTED TO THE GRADUATE FACULTY

in partial fulfillment of the requirements for the

degree of

Doctor of Philosophy

By
KIMBERLY CONRAD GADDIE
Norman, Oklahoma
2002

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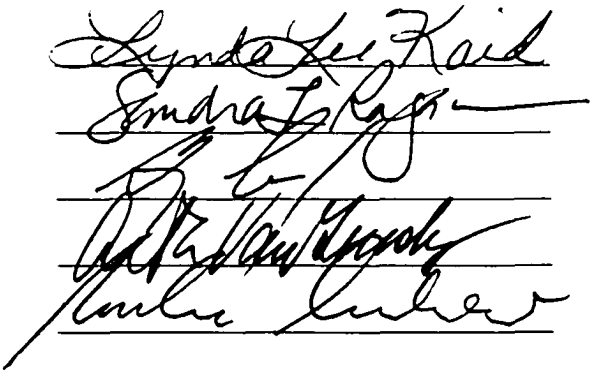
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'THROUGH WHICH CHANNEL, WITH WHAT EFFECT': THE IMPACT OF CHANNEL ON VOTER LEARNING AND CANDIDATE EVALUATION FROM POLITICAL MESSAGES

A Dissertation APPROVED FOR THE
DEPARTMENT OF COMMUNICATION

BY



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ABSTRACT

Researchers have long studied the effects of media messages on individuals. The emergence of a new medium, the internet, demands that we make closer study of the effects from exposure to messages through this channel. This study examines voter exposure to three distinct political messages via television and Internet to determine differences in voter learning, candidate evaluation and likelihood for future information seeking that might arise from the medium, the message, or the interaction of both. Using an experimental design, a sample of 608 subjects viewed campaign advertisements, a broadcast news story, and a debate segment from the 2000 Virginia US Senate campaign on television or streamed over the Internet, and then completed a post-exposure survey instrument. The results of the study offer support for the argument by Marshall McLuhan that the channel of communication does have an impact on what viewers take away from the encounter. The channel of communication does affect voter learning, and there is an interaction of message format and channel that produces varying effects on candidate evaluation.

Chapter 1

INTRODUCTION

Background & rationale for the study

In 1975 Steven Chaffee offered the argument that political communication may be best described as the "role of communication in the political process" (p.15). Some, such as Nimmo and Sanders, argue that the field of political communication really traces its roots back to the early 1950's and the early studies of rhetoric (Nimmo and Sanders, 1981, p.12-13). Other research traces the roots of political communication in grouping dominant areas of research interest. In 1974, Kaid, Sanders, and Hirsch compiled a comprehensive bibliography of political communication research and found the dominant topics of study to be "television and politics, debates, image, issues, presidential campaigns, polling, rhetoric and public speaking , and professional campaign consultants" (Kaid, 1998, p.122). Today we see many of these same areas of study as focal points for the research of scholars in the field of political communication.

What the contemporary study of the landscape of political campaigns has only recently begun to consider is the role of changes in the delivery of political messages.

The introduction of television dramatically altered the nature of political campaigns and ushered in a new era of the"mass media age of televised campaigning" (Dinkin, 1989). The days of campaigns waged with face-to-face candidate interaction were diminishing. Candidates could reach out across the airwaves and deliver their message directly into the homes of voters; the manner in which candidates would be elected was forever changed. Today we see another new era emerging, as the Internet and World Wide Web increasingly serves as a direct link between candidates and voters. With its proliferation in recent years, researchers confront questions about how much this new technology will alter the political campaign landscape yet again?

As Grossman (1995)points out,

> This is the first generation of citizens who can see, hear, and judge their own political leaders simultaneously and instantaneously. It also the first generation of political leaders who can address the entire population and receive instant feedback about what people think and want. (P. 4)

This generation has available to it a greater array of communication technologies than any to precede it. With the proliferation and refinement of these various technologies

has also come an increase in the general volume of information available to consumers. As the most recent of these technologies, home computer access to the internet, becomes more integrated into human society, and as that technology competes with other media for the time and attention of information consumers, it stands to reason that communication scholars should examine how these technologies affect the quality and efficiency of the transmission of information to consumers and how these technologies affect subsequent curiosity about - and demand for - additional information.

The elections of 1992 were probably the first campaigns where voters and researchers saw the introduction of the Internet as an emerging source of political information. During the 1992 elections, candidates began making use of less "traditional" media outlets and turned to more of the new media and interactive formats. For example, in 1992 Clinton and Perot made extensive use of 800 numbers in reaching out to the electorate, but also appearing on shows like Larry King Live and other call-in shows (Diamond, McKay, & Silverman, 1993). One of the major advantage that these and other new media in political campaigns offer to candidates is the fact that

> new interactive techniques allowed their [the candidates] unfiltered messages to enter the hearts and minds of the American voters. The public became a part of the process, an active participant. Not only was the audience receiving information, individuals were able to respond (Diamond, McKay, & Silverman, p. 259)

This same advantage is afforded to candidates with the addition of the Internet a communication tool during campaigns. With the increased attention, by candidates, to reach out directly to voters, the Internet began to make a place for itself in the political landscape.

In 1994, this new era of political campaigning became even more crystallized as Minnesota candidates for governor and the United States Senate squared off in the first election campaign debates ever held by computer and on the World Wide Web. (Grossman, 1995, p. 16). By 1996, the Internet had "firmly planted itself in the political history of the United States" (Rash, 1998, p. 98). The arrival of the Internet into the political landscape of the 1996 elections changed the future of political campaigns in much the same manner that the introduction of television changed it in the 1950s. Thus 1996 was the first year where the Internet gained national exposure as a tool for politicians,

and specific events that had never occurred before were happening.

> Bob Dole stood on stage at the Democratic National Convention and concluded his speech by giving out his website address. The Democratic National Committee put Internet enabled computers on the floor of the convention. Oklahoma Republican congressman J.C. Watts, used his cellular phone connected to a RealAudio server to the floor of the Republican National Convention as a way to bring the activities to the entire world. (Rash, 1998, p. 100)

Where in past years candidate web sites were the equivalent of "digital yard signs" (Casey, 1996) these new tools allow candidates and special interest groups to solicit contributions, send targeted messages, and mobilize volunteers for a campaign in ways never imagined 10 years ago. One of the most recent and visible examples of this is presidential candidate Senator John McCain's use of the Web in the 2000 election for electioneering purposes. From McCain's web site, he was able to raise more than two million dollars for his primary bid and recruit more than 26,000 volunteers(Mintz, 2000). This evolution in use was significant on two dimensions. First, it allowed McCain to receive immediate feedback from the grassroots regarding the

viability of his campaign. Second, the Internet fundraising mechanism cut by weeks McCain's ability to capitalize on his popularity by increasing his liquid warchest literally overnight.

While much of the research on political communication in recent history can be linked to areas of study such as media effects research, including agenda setting research, uses and gratification research and also rhetorical stories, what is virtually ignored by much of this research is an examination of the role that channel plays in the political communication process. One of the earliest models of communication was by Harold Lasswell (1948) who focused on communication as a process whose elements consist of "who, says what, in which channel, to whom, with what effect." Lasswell was fond of this rhetorical construct, saying that politics was "who gets what, when, and how." This study focuses on the channel dimension of the communication process neglected by these other studies of media effects and compares the television and Internet as the channels tested. Television has already been shown to be long standing channel of communication in political campaigns. The Internet, however, has only recently emerged as new form of political communication so a comparison of this more

traditional medium (television) with the newer, less traditional medium (Internet) is warranted.

The impact of the Internet on politics

The Spring 1999 CommerceNet/Nielsen Internet Demographic Survey indicates that the Internet population of users in United States has reached 92.2 million users over the age of 16. This represents an increase of 70 million users just since 1995. Computer Industry Almanac puts projected estimates of world-wide Internet usage at 490 million by the end of 2002 (downloaded from http://www.commercenet.com on January 30, 2001). With this tremendous growth of the Internet as a source of information, it is important that we study its role a communication medium. Researchers, political scientists, and communication scholars all present varying interpretations of the role that the Internet plays in the political process.

Glyn Davis (1997), in "Tocqueville and the Internet," compares the vibrancy and multiplicity of American journalism during the 1830s with the dynamism of the Internet in the 1990s. She argues that the,

> same restless energy once found in American journals, the profusion of sources, and the same viable quality

of messages, have found new domain in cyberspace (p.123 - 124).

Other researchers argue that the World Wide Web presents a tremendous opportunity for on-line communities of "like-minded citizens" (p. 2) to come together (Keane, 1995). Sullivan (1995) advocates that the Internet will promote democracy by helping to develop more informed voters.

For every advocate of the promises that the Internet offers to voters, candidates, and democracy, there is also a skeptic. Hacker, Howell, Scott, & Steiner (1996) are not as optimistic about what the Internet will do for democracy and argued that Americans are still largely unsophisticated when it comes to technology. Worth noting is that this research by Hacker, et al. was conducted at a time when the Internet was still establishing itself in the political landscape and voters were not as cued into the Internet by candidates as they were in the 2000 election. Althaus and Tewksbury (2000) maintain that even though Internet sites did grow substantially in 2000, this proliferation will not alter established usage patterns of traditional media in seeking out political information.

Definition of key terms

Throughout this study the concepts of "channel" and "format" will be used frequently. A discussion of the context in which these terms are applied is critical to the understanding of the study and discussion of results. Channel, as used in this study, is the "means by which a message moves from the source to the receiver of the message" (Pearson & Nelson, 2000, p. 11). The term channel and medium are often used interchangeably by those studying mass communication. In this study, two channels are utilized: television and the Internet.

The second key term for this study is "format." For this study, the use of "format" refers directly to the type of message being viewed or utilized by participants. The three formats used in the study are political advertisements, a broadcast political debate segment,and a broadcast campaign news story. A detailed description of these political messages is provided in Chapter 4.

Overview of study and research questions

This study examines a comparison of the three message formats (televised political ads, political debate segment, and a televised campaign news story) across two different channels (television and the Internet). These media formats are taken from the 2000 Virginia Senate race between George

Allen, republican candidate, and Chuck Robb, democratic candidate. These three media formats are compared across two different media channels: television and the Internet.

Televised political advertisements are used since they represent a mainstay of modern political campaigns. Kaid (1981) states that political advertising may be best defined as "the communication process by which a source (usually a political candidate or party) purchases the opportunity to expose receivers through mass channels to political messages with the intended effect of influencing their political attitudes, beliefs, and/or behaviors" (p. 250). Likewise the broadcast debate segment is included in this comparison since the role of debates in the political process has become almost institutionalized since their popular introduction in 1960 with the first televised debate between presidential candidates Richard Nixon and John F. Kennedy.

As for the televised campaign news story, review of academic studies by Chaffee and Kanihan in 1998 found evidence that television news is becoming a major source of political information. Additionally, research has shown that voters do learn issue information from televised news during a campaign (Chaffee, Zhao, & Leshner, 1994; McLeod & McDonald, 1985).

Each of these three message formats are compared in both a televised version and an Internet, online version. This study focuses on the role that channel plays in the communication process while looking at this dimension in a political communication setting. The research focuses on how the channel of communication affects voters learning and candidate evaluation when three message formats (campaign advertisements, broadcast news story, and debate segment) are placed within two different channels (television and Internet). Additionally, this study will look at how the channel of exposure might affect a voter's likelihood to seek out additional information or participate in some type of campaign related activity. Since gender differences in learning have not been well established in prior research, this study will also make comparisons across gender on voter learning and candidate evaluation as they are impacted by the channel of communication. Specific research questions follow at the conclusion of chapter 2, which focuses on prior literature related to this study as well as a discussion of the theoretical foundation used in this research.

Chapter 2

Review of Literature

Theorectical foundation

Over the years, mass communication scholars have advanced many theories and models about the communication process. These theories or theoretical models act as a "verbal, graphic, mathematical or mechanical representation which explains or shows how something works" (Hicks, 19977, p. 291). In 1948 Harold Lasswell, a social scientist, offered an insightful explanation of the mass communication process with his comments that "mass communication is who says what, to whom, through what channel, with what effect"(p.32) . This model accounts not only for the components of a source, or sender, and a receiver but also the importance that the channel plays in the communication process.

David Berlo offers a similar interpretation of the communication process with his model that begins with a source, then an encoding process or the message, through a specific channel, and finally to the receiver or decoding process. This study focuses specifically on the segment of these theories that relates to channel and effect and the

relationship or interaction that these two components produce.

Many theories that have emerged in the modern development of mass communication offer explanations for media effects and uses. Such theories as agenda setting (McCombs & Shaw, 1972), knowledge gap hypothesis (Blumler & McQuail, 1968; Tichenor, Donohue, & Olien, 1970), the bullet theory (DeFleur & Ball-Rokeach, 1982), spiral of silence theory (Neumann, 1973), and many others which have developed out of these major theoretical foundations. These theories and many of the subsequent ones to develop out of them put their focus on the effects generated by the media. However, what many of theories do not directly address is the effects produced as a direct result of the interaction that occurs between the message sent and the channel chosen to deliver that message.

In 1965, Marshall McLuhan challenged much of the modern mass communication theory and research with his bold statement in *Understanding Media* that "the medium is the message" (p. 3). While much of McLuhan's writings and works are filled with colorful statements and are sometimes difficult to interpret his explanation about media and its effect in *Understanding Media* is fairly straight-forward. His primary argument is that the basic function of all

communication is that it affects our habits and way of thinking which also directly involves the uses of our senses to process information. In *Understanding Media* (1965), McLuhan states " what I am saying is that media as extensions of our senses institute new ratios, not only among our private senses, but among themselves, when they interact among themselves" (p. 53). For McLuhan, it was the development of the many forms of communication and the simultaneously extension of and interactions in the senses needed to process these messages that produce different effects for the receiver. McLuhan, according to this argument, maintained that it was the medium and not the content that was most directly responsible for the meaning we get from any communication transaction.

Furthermore, as the media change in society from one dominant media to another, so does our own ability to process those messages through the senses. McLuhan argues that print media are an extension of the sense of sight and therefore reinforce visual learning and also make the communication process more linear. This reliance on print as the dominant media would shift with the introduction of television and thereto alter the manner in which our senses process the messages we receive. Television, for McLuhan reinforced the sense of hearing, a shift not only in the

dominant media used by society but also a shift in the senses used to process information.

With these assertions by McLuhan also came what he called different classifications of media. He distinguished between what he referred to as hot and cool media. In *Understanding Media*, McLuhan explains "the principle that distinguishes a hot and cool media is perfectly involved in folk wisdom:

> 'Men seldom make passes a girls who wear glasses.' Glasses intensify the outward-going vision and fill in the feminine image exceedingly...Dark glasses, on the other hand, create the inscrutable and inaccessible image that invites a great deal of participation and completion' (p.44).

Amidst the once again colorful language and imagery that McLuhan was famous for, he is describing the belief that some media are high definition. High definition media require less in the way of interactivity and participation on the part of the user, while other media are low in definition and require a great deal more interactivity and involvement from the user. "Involvement by the user," for McLuhan, is the need for the user of some medium to fill in information or fill in the gaps present in a message. For example, a print message, being low in regards to user

involvement for McLuhan allowed all information to be presented to the user; there are no gaps that need to be filled in.

McLuhan offered a detailed description of his classification of media as either hot or cool and the effects on users in *Understanding Media* and stated,

> There is a basic principle that distinguishes a hot medium like the movie from a cool one like TV. A hot medium is one that extends one single sense in high definition. High definition is the state of being well filled with data. A photograph is, visually, high definition. A cartoon is low definition, simply because very little information is provided. Telephone is a cool medium, or one of low definition, because the ear is given a meager amount of information. And speech is a cool medium of low definition, because so little is given and so much has to be filled in by the listener. On the other hand, hot media do not leave so much to be filled in or completed by the audience. Hot media are, therefore, low in participation, and cool media are high in participation or completion by the audience. Naturally, therefore, a hot medium like radio has very different effects on the user from a cool medium like the telephone (p. 38).

For McLuhan, the media that he considered hot, or high in definition and thereby low on involvement, are the photograph, radio, print, a book, motion pictures, a lecture, and eyeglasses. Additionally, the media McLuhan considered to be cool, or low in definition and high in involvement, include a cartoon, television, a speech, the telephone, a conversation, and a seminar.

McLuhan died before the Internet came to be of such noted dominance in society but numerous individuals and researchers who study McLuhan carefully and with great regularity have agreed that McLuhan would probably have classified the Internet as a hot medium since it is largely print-based, and much information is presented for the user.

Some scholars suggest that McLuhan's theory about media and the relationship between medium and message is just another of McLuhan's colorful expressions, even going as far as to say that "McLuhan was an armchair theorist and clever coiner of phrases whose ideas do not lend themselves to experimental verification" (Golden, Berquist, & Coleman, 1997, p. 160). McLuhan claimed that his "causal model of communication and communication systems" (Gronbeck, 1981, p. 6) could be proven simply by looking at our own history and the developments in technology. In his work *Technology and Culture*, McLuhan states:

> My purpose [in this outline of the laws] is to invite criticism, directed not at me or at my rhetoric, but rather at the substance and contents of my thoughts...[Do] my Laws of the Media - derived from my inductive approach to synchronous form - correspond to historical data as viewed from the vantage point of historians of technology? Does the history of technology 'prove' or 'disprove' my postulates? I should appreciate hearing from readers of Technology and Culture in response to the above question (p. 74-75)

In actuality, McLuhan's theories about media and messages have been cited and tested as early as the 1950s. Works by Williams, Paul, and Ogilvie (1957), Barrow, Lionel, and Westley (1959), Klapper (1960), and Dommermuth (1974), have all commented on and/or tested aspects of McLuhan's charges about the interaction between the medium and the message.

Williams, Paul, and Ogilvie (1957) conducted an experiment which McLuhan, himself, comments on as verification for his theory. In this experiment, a total of four groups with random assignment of subjects were exposed to a lecture that discussed the effects of language on perception. One group heard it via radio, another heard and viewed it on television, a third read a transcript of the

lecture in print form, and the fourth group heard the lecture in traditional lecture format. A short quiz was administered after hearing or reading the lecture material. The results of those quizzes showed:

> that after application of a t-test to the differences between the media groups showed the mean score of the TV audience was significantly better than that of the radio group. The score of the radio group was in turn significantly better than that of the reading group. No significant differences were found between the reading and studio (traditional lecture group) group (p. 442).

An experiment by Barrow and Westley (1959), similar in its design to that of Williams et al. tested a single message across radio and television. Their results indicate that as far as retention is concerned television is again more effective than sound only in what viewers could accurately recall. This reinforces the earlier findings by Williams et al. In 1974, Dommermuth also compared four media and their effectiveness on audience perception of a presentation and added in the dimension of how the message delivered across these four media might effect evaluation of the communicator. A 20-minute film of a professor advocating that "education should be aimed primarily at the

intellectual discipline" was the message utilized (Dommermuth, 1974, p.443). One group viewed and heard the message on television, group two viewed and heard the message as a motion picture, group three heard the sound track (meant to simulate a radio broadcast), and the final group read a script of the message in print form. As for recall of information, Dommermuth found no significant differences between television and sound only. His study found that sound and print were superior to both the television and motion picture exposure. What Dommermuth's study adds to the debate about medium and message is the addition of how the communicator was evaluated across these four media channels when the message is held constant. His results were very mixed as to which media portrayed the communicator more "favorably," but they raise an interesting question: Can we simply isolate the message and look at those effects or isolate the channel and its effects? For Dommermuth, and McLuhan too, "generalizations about medium effectiveness are meaningless when isolated from the total situation" (Dommermuth, 1974, p.447).

McLuhan, himself, argues that, in fact, there may be an interaction between the characteristics of the communicator and how those interact with the medium to have a resulting effect. McLuhan never specifically lays out his argument on

this issue, or gives any clear guide of where people might fall on the spectrum of hot and cool personalities but we can gain some insight about this from his comments about Calvin Coolidge. McLuhan offers the explanation that,

> it is instructive that the press applied the word 'cool' to Cal. In the very sense of a cool medium, Calvin Coolidge was so lacking in any articulation of data in his public image that there was only one word for him. He was real cool (p.29).

McLuhan, similarly, draws comparisons of Franklin D. Roosevelt in his comments, "by contrast, F.D.R. was a hot press agent, himself a rival of the newspaper medium and one who delighted in scoring off the press on the rival hot medium of radio (p. 29)". What McLuhan is saying is that there may be a way in which we define the communicator or type of message as either "hot" or "cool" and a definition of the channel or each media as being "hot" or "cool" and that pairing a cool type message or cool communicator with a cool channel makes for a stronger impact on the receiver. Likewise, to pair a "hot" message or communicator and deliver it across a "hot" medium makes for a stronger impact to the receiver. This hypothesis would certainly be reinforced by the findings by Williams et al. (1957) whose study took a lecture found television to be the most

effective at influencing recall of the material presented. Since McLuhan has already identified a lecture as being cool and television a cool medium, then to pair those two together should produce the strongest effect: as was the case in the Williams et al. study.

At the very least, what these studies and comments from researchers offer, is that while McLuhan had critics, he also fundamentally altered the manner in which we had previously viewed the communication process. Golden, Berquist, and Coleman (1997) argue,

> There can be little doubt that McLuhan's belief in the notion that the 'medium is the message' is the central aspect of his theory of communication. Consistently we have demonstrated [in this book] that the language symbols we use form content of the message and generate meaning. But McLuhan has given us an antithetical interpretation of meaning by arguing that the medium, more than the content, is the essence of a message (p. 159).

To a larger extent what McLuhan was successful at accomplishing is the introduction of the fact that when we take inherent characteristics of each medium, and each type of message or communicator, that the effects will depend on which channel that message is delivered.

One of the most often cited examples in political communication about the medium and the message that McLuhan described comes from the 1960 Nixon-Kennedy debates (Katz & Feldman, 1962). McLuhan himself often used this example in his own interpretations about this interaction of medium and message. During the Kennedy-Nixon debate the verbal content of the debate was the same for two different groups of individuals who heard the debate take place. The only difference between the groups was that one group watched the debate on television and the other listened to it on radio. According to the television viewers, Kennedy won the debate overwhelmingly while the radio group agreed on Nixon as the winner of the debate. In this case, the television audience had the added benefit of seeing Kennedy who came across as youthful and cool manner contrasted with Nixon's stern, austere, or hot image and decided the winner based on the interaction of all of these variables being presented via television. However, the radio audience had only the verbal content and arguments made by each candidate and found Nixon's point-by-point debate style and use of details to formulate their support for him as the winner. Some research has pointed out that this difference in evaluation between television viewers and radio listeners is merely a "myth" (Vancil & Pendell, 1987). Others, like the previous

studies of channel differences presented in this chapter, maintain that you cannot dismiss "the widespread popular belief that different media have different effects" (Kaid, 1981, p. 256).

While this example may not decide a right or wrong interpretation of the conclusions that the two audiences reached, it does directly support McLuhan's basic argument that there is a direct relationship and interaction that occurs between the message delivered or even the personality of the communicator, the medium that message goes through, and the impressions it creates for the user. In *The Responsive Chord*, Tony Schwartz argues that McLuhan achieved an almost guru status from his bold statements about the media but because of McLuhan's critics it often times "clouds the extraordinary contribution he [McLuhan] has made to communication theory" (p. xiv). Likewise, other researchers and theorists have acknowledged that "while McLuhan had his detractors he also had an astonishingly large number of admirers and his two most ground breaking works *The Gutenberg Galaxy* and *Understanding Media* have become required reading for many mass communication college courses" (Golden, et. al, p. 160).

As Julia Wood mentions in her book *Communication Theories in Action: An Introduction* (1997):

> Despite the excesses of his ideas and style, McLuhan contributed to both scholarly and popular awareness of the character and consequences of media in the life of a culture...As economist Kenneth Boulding (1967, p.57) suggested that McLuhan might be like other creative thinkers in his tendency to 'hit very large nails not quite on the head'. Perhaps we shouldn't dismiss McLuhan's overall views just because his aim was a little off (p.291).

This study draws on that basic principle and the interaction of message, channel, and resulting effects argued in measuring candidate evaluation, voter learning and expressed likelihood for future information seeking by exposing participants to identical messages in both a television broadcast format and on the Internet. As such, it does not refute the importance of message content, issues, or candidate image in the decision making process of voters. What it does assert is that the interaction of channel and message format are important in the communication of information that might affect voter learning and evaluation of the candidate.

Review of relevant literature

In examining previous and current research related to this study, steps were taken to identify and discuss all of the related components being tested in this research. This includes a look at literature related broadly to the effectiveness of televised campaign advertising, news coverage of political campaigns, and televised debates, as well as the examination of any available research on the effectiveness of the Internet as a communication tool and comparisons across different channels of communication. The presentation of this material begins with a broad discussion of research that relates to learning from campaign advertising, news coverage, and debates including how voters evaluate candidates. The discussion then moves into the literature on the effectiveness of the Internet as a communication tool and its use in area of political communication. Finally, related literature specifically on the differences across multiple channels of communication is discussed.

Televised campaign advertisements: Candidate evaluation and voter learning

A significant body of research exists in the field of communication on the impact of televised campaign advertisements, what voters learn, and how they evaluate

candidates. In 1980, Joslyn argued that much of the content in political advertising focuses on issues and not solely on image. This is one of the earliest and most widely noted pieces of research to maintain that candidates advertisements do in fact contain substantial issue information. Findings from Joslyn's research extended earlier work by Patterson & McClure (1976), which maintained that political advertising (especially that at the presidential level) is a blend of imagery and issue content. Patterson and McClure's work went even further, maintaining that not only do candidate advertisements educate the public about the issues but that in fact these advertisements manipulate the public about candidate positions on the issues.

Subsequent research extends these initial findings about candidate advertising. This work substantiates the belief that spots do contain substantial issue information, and the televised campaign advertisements are effective in raising voter recall of those issues. Some of the early studies that focus on political advertising provided evidence that televised political advertising has cognitive, affective, and behavioral effects on voters (Kaid, 1981). Similarly, televised political advertisements are found to have the effect of higher issue recall by voters after

exposure to advertisements compared with recall from televised news (Patterson & McClure, 1976; Atkin, Bowen, Nayman, & Sheinkopf) or televised debates (Just, Crigler, & Wallace, 1990). Such findings on special significance because of the enduring debate regarding whether voters are ideological innocents who are issue ignorant (Campbell, Converse, Miller, & Stokes, 1962) Or a responsible electorate which is capable of issue-specific sophistication (Key, 1966). Atkin, et al.found in their study of exposure to candidate advertising that "candidate qualifications and issue stands seem to be the content most widely learned from these political ads" (p. 223).

Additional research has shown that candidate advertising is effective in influencing voter evaluations of the candidate. A study cited above, Kaid and Sanders (1978), found specifically that issue-oriented spots were superior to image spots in terms of candidate evaluation. This research also showed that those political advertisements which focused more on image had a stronger impact on viewers ability to accurately recall content. Kaid, Leland, and Whitney (1992) reinforced this finding in their study which also showed that "image commercials appeared to produce more visual recall than issue commercials" (p. 293). Paid political spots have repeatedly

been shown to have a significant impact on voters images of political candidates and that advertisements are uniquely qualified as medium for communicating image information (Wattenberg, 1982; Cundy, 1986; Kaid, 1981, 1994, 1996a; Kaid & Chanslor, 1995). In fact, political scientist Gregory Caldiera contends that candidate image evaluations are more important in presidential voting. In effect, candidate character takes on the role of "issue" in evaluating candidates and vote choice.

The notion that political advertisements affects voter evaluations find substantial support in experimental studies of voter evaluation of candidates. Cundy (1986) conducted a study utilizing political advertisements for a fictitious U.S. Representative and showed "direct, ratio-scaled evidence that paid political spot commercials can make a significant impact on voter images of political candidates" (p. 232). In the context of a hypothetical candidate, the introduction of political advertisements significantly altered viewer evaluations.

There is more to the impact of political advertisements than the simple introduction of information. Research into the effects of political advertising have also included examinations of the structure of the advertisement as a variable on the impact to candidate evaluation and voter

learning. Geiger & Reeves (1993) specified two types of structure for political advertisements: static and dynamic. According Geiger and Reeves, static structure are advertisements,

> that take place in one scene or location with the candidate talking directly to the camera and were composed from a head-on camera angle without cuts or shifts (p. 131).

By contrast, their definition of a dynamic advertisement is one in which

> the candidate is presented in a number of different settings, paced with quick cuts and camera movement, used voice0over and music, and employed special effects (p. 131).

Their study concludes that issue recall from campaign advertisements is hindered in those advertisements that employ a dynamic structure, but that image and candidate evaluation can be enhanced by that same type of dynamic structure.

The overall conclusions reached by the research on televised political advertisements is mixed, but generally show that campaign advertisements do in fact have an impact on voters. Those impacts include findings that voters learn about issues from exposure to ads as well as influencing

voters evaluation of a candidate's image. These studies help bring to light the strength of that impact and posit the criteria by, and conditions under which, those effects may be greatest.

Learning from news coverage of political campaigns

Few studies have focused solely on what viewers learn from broadcast news. Many times, learning from news coverage is incorporated into tests of learning across multiple message formats. Russell Neuman (1976) conducted a test of viewer recall of news stories from nightly television news and found that 50 percent of his subjects recalled nothing from one night's television news show. Furthermore, of those who could recall anything, the average number of stories recalled was only 1.2 out of a possible 20 stories. Robinson, et al. (1980) surveyed individuals from nine major U.S. cities and found that even when prompted by interviewers, viewers could remember the central point from the story of slightly more than half of the total stories. Only 25 percent of those recalling anything could remember any specific, correct details.

However, a review of academic studies by Chaffee and Kanihan in 1998 found evidence that television news is becoming a major source of political information, even

rivaling newspapers as a major source of political news. In 1994, Chaffee, Zhao, and Leshner conducted a study that tested voters exposure to both newspaper coverage and television news during a political campaign. Their results indicate that newspaper reading and attention to television news coverage are related to voter's knowledge of issues in the campaign and to knowledge about the candidate's personal characteristics. Chaffee, Zhao, and Leshener reached two definite conclusions: first, that "this study adds to the documentation of television's emergence as a principal medium of campaign communication" (p.317) and secondly this study "stands out particularly in relation to knowledge about issue differences between candidates"(p.318).

Additional work by authors like that of McLeod and McDonald (1985) argue that you must differentiate between general and specific media exposure in order to show differences in learning. Their study showed that attention to specific media content, like news on foreign affairs during a presidential campaign was far more likely to have an impact on voter's knowledge about candidates positions on foreign affairs than just general exposure to news. Despite some of the contradictions in research about learning from news, most researchers agree that television news is a primary channel for campaign related communication and

voters rely on news coverage for information and updates about the campaign and the candidates. This historical reliance on televised news coverage during campaign is why a campaign news story is being included as one of the stimuli tested in this study. Furthermore, as is outlined in more detail in chapter 4, the content of that news story is content specific on the issue of education.

Research on televised political debates

Shifting to the literature on televised debates, there is again diverse literature examining the impact debates have on voters. Since the first televised presidential debate between Kennedy and Nixon in 1960, debates have played a key role in campaigns, often times generating one of the largest audiences of any single campaign event (Katz & Feldman, 1962). Researchers have mixed conclusions regarding what voters actually learn from viewing a debate. Research by Lanou and Schott (1991) offers the argument that voters do learn about issues from debates, but often times that knowledge is short-lived. Miller and MacKuen (1979) argued similarly that debates may help to produce a more informed electorate. However, they also conclcude that what voters learn from debates about the issues is not substantive.

By contrast, Lemert in 1993 found that voter knowledge of issues is in fact increased as a result of exposure to debates. Lemert's work, unlike some of the prior work on voter learning, also touched on the role of post-debate commentary by the media helps to increase that voter knowledge. Other studies, like that of Just, Crigler, and Wallach (1990) have concentrated on the effects of debate viewing on the low-involvement voter. Their findings indicate that while learning about issues from debates is not high among those voters already knowledgeable, learning does take place for those low-involvement voters.

Research about issue learning from debates is only one dimension of the studies on voter exposure to televised debates. Additional work has looked at how voters may form opinions, or evaluate candidate's image, after having viewed a debate. The study by Miller and MacKuen (1979) not only saw an increase in issue learning, but found greater changes in perceptions of candidate image following exposure to debates. Katz and Feldman also argued that "there is no doubt that the debates were more effective in presenting the candidate than the issues" (p.752).

It has also been argued that learning about issues and evaluation of a candidate's image from having viewed a televised debate are not unrelated. Sears and Chaffee (1979)

argue in their research on presidential debates that debates do not have an impact on candidate image which is a notable contrast to the impact of dynamic campaign advertisements, at least not as a variable separate from issue learning. They found that voters associate candidate images with candidate issue stands.

While these pieces of research stand out as noted contributions to literature of learning from televised debates, there is virtually no research on what voters learn from exposure to the same information on the Internet. The lack of research in this area is in part related to the fact that the Internet did not play a major role in political campaigns until 2000. Johnson, Braima and Sothirajah (1999) note that the Internet was only getting a "test drive" as a viable campaign medium during the 1996 election (p. 102). This explanation also serves as catalyst and motivation for why the new Internet medium needs to be incorporated into the voter learning research arena.

Research on learning across different channels of communication

Much of the research about recall of information from a given media source focuses on recall of news from televised broadcasts of news. Stauffer, Frost, and Rybolt (1983)

studied viewers ability to recall information news stories from their favorite evening news broadcast. A total of 593 individuals were contacted by phone with short interviews conducted. A sub-set of 170 individuals were selected and phoned again, this time given instructions to watch their favorite evening news show the next night. The instructions to this group included the direction "we'd like you to watch the program as you normally do, but pay close attention to the news stories. We'll call you shortly after the program tomorrow night" (p. 30). The remaining 423 individuals were telephoned the next night following the ABC, CBS, and NBC network news with no prior notice that they would be contacted. The results of this cued-recall study found that while those viewers who were cued that they would be contacted were able to recall significantly more news items than those who were not cued, neither group recalled more than 25 percent of the stories. Subsequent studies of radio and television audiences show that individuals are unable to recall many of the news items that they were exposed to (Katz, Elihu, Adoni, & Parness, 1977; Neuman & Russell, 1976; Stern, 1973).

As researchers tested messages across different channels of communication, the literature again made comparisons in recall of news (Wilson, 1974; Furnham &

Gietson, 1984; Gunter, Furnham, & Leese, 1986; Wicks & Drew, 1991; DeFleur, Davenport, Cronin, & DeFleur, 1992; and Facorro & DeFleur, 1993). All of these studies reached surprisingly similar conclusions: that when an adult's memory for television news is compared to recall of print versions containing the exact same information, the printed news is remembered best. One of the explanations often offered for this finding among these studies is that, because readers of the print versions have the opportunity to exercise more control over their information processing, that they are then able to accurately remember the information. Television viewers, according to Facorro & DeFleur (1993) and Wicks and Drew (1991), are really held to a "fixed tempo" and cannot exercise the same control over information processing that print readers can.

Two studies, one by van der Molen and van der Voort (1997) and a second by Gunter, Furnham, and Griffith (2000), tested similar messages but comparing recall with children instead of college students or adults as done in previous research. Their studies tested television news versus printed text presentations of the same content. Results from both of these studies go in contrast to the previous literature and find that children recall more from television news than the same printed text version. This

finding is held true regardless of the level of reading proficiency or cued expectation for memory test after exposure (van der Molen & van der Voort, 1997).

The earlier referenced study by DeFleur, Davenport, Cronin, and Defleur (1992) tested recall of news stories presented across four different media: newspapers, computer screen, television, and radio. Their findings show that those individuals recalled news stories presented in newspaper format or on computer screen at a significantly higher level than were facts from the exact same stories presented in the radio or television format. Additionally, the scores for recall after exposure to the stories on the computer screen were closer to those scores from the print group than those of the television group (p. 1018 - 1019).

In examining other pieces of research that incorporate tests of online or Internet messages with print or other more "traditional" media, the literature is mixed in regards to both the channels being compared and the type of messages being compared. The advertising profession has been one of the first to really incorporate tests into the effectiveness of the Internet as it compares to other media outlets and advertising. Sundar, Narayan, Obregon, and Uppal (1998) exposed groups to either a front-page with two news stories and one advertisement and a second group was exposed to an

online version of the same material. Their findings indicate that subjects exposed to the print version of materials remembered significantly more of the advertising content than the online subjects. They offer the explanation that, since

> the print version allows the readers' eyes to consume the news page in its entirety, including all peripheral aspects like advertising, while the computer screen, with its thick boxed boundaries, limit readers' attention to the center of the screen (p 830).

The findings of this study support earlier work, which found recall of news stories to be greater when presented in print or newspaper format.

A study by Cohen (1976), shifts away from tests of news across multiple channels of communication and incorporates campaign commercials as the stimuli being tested. Cohen tested exposure to commercials during an Israeli election and exposed subjects to the same commercials across radio and television. On Cohen's first hypothesis that significant interaction between the media and candidate evaluations would exist is supported in the results. In fact, Cohen states,

> certain candidates received higher evaluations on television whereas others received higher evaluations

> on radio. In other words, the evaluation given to the candidates depended not only upon the identity of the candidate himself, but also upon the medium on which he is presented to the audience (p. 33 - 34).

These findings lend additional support for McLuhan's argument that not only does the medium affect what people take away from that exposure, but that in fact there may be an interaction between characteristics of the message, or communicator, and the medium. Cohen (1976) study supports the argument by McLuhan and others discussed earlier that the channel through which a political message is sent will have an impact on how effective that message may be on a viewer/listener.

Multiple message formats, multiple channels, and learning

The progression of research on differences in learning across channel has included the additional comparison of multiple message formats across different channels of communication. Studies by Martinelli and Chaffee (1995) and Brians and Wattenberg (1996) compared voter learning and political knowledge across newspapers, television news, and televised campaign advertisements. The study by Martinelli and Chaffee (1995) used a sample of recently naturalized U.S. citizens surveyed during the month before the 1988

presidential election to measure voter learning after exposure to campaign newspaper stories, televised campaign news, and campaign advertisements. Their results indicated that "each channel made a separate, significant contribution to issue learning" (p. 18). In their study, recall of televised campaign advertisements showed the greatest predictive strength toward voter learning while newspapers and televised news were more closely related to issues of attention.

Brians and Wattenberg (1996) also conducted a study using regression analysis of the 1992 American National Election Study data to test the impact of three media sources (television commercials, television news, and newspapers) on candidate issue position knowledge and issue-based candidate evaluation. Results of that analysis showed that citizens recalling political advertising had the most accurate knowledge of candidate positions on the issues. This combination of message format and channel of communication scored higher on issue recall than those who could recall correct issue knowledge after viewing campaign related news stories on television or reading newspaper coverage of the election.

Other studies to examine message format differences and channel differences have focused solely on political

communication, most notably the increased use of "non-traditional media" in recent campaigns and the effects of such media use when compared to that of more traditional campaign related media. One such study is by Johnson, Braima and Sothirajah (1999). Their study focused on the extent to which heavy users of the Internet and other non-traditional media differ from heavy users of traditional media in the knowledge of issue positions for Clinton and Dole in 1996. The mix of potential information sources utilized in this study included television news, newspaper, cable television news shows (CNN, C-SPAN), radio news, late night television talk shows, MTV, and the Internet.

Findings by Johnson, et al. indicate that the non-traditional media sources had a greater impact on the images of Clinton and Dole than the traditional media, but only a few relationships remained significant after controlling for other factors like income, education, and political affiliation. Their findings also indicate that the "non-traditional media use and attention did not predict increased issue knowledge - but traditional media did not fare much better" (p.108).

McKinnon and Tedesco (1999) conducted an experiment using the first presidential debate in the 1996 election to gauge voters evaluations of the candidates before and after

the debate. One of the hypotheses posed by these researchers asked if "the medium of exposure to a televised debate (television or radio) will significantly affect the evaluations of the political candidates involved" (p.195). One groups viewed and listened to the debate on television while another group only listened to the debate via radio. This experiment looked at shifts in candidate evaluation before and after the debate on a feeling thermometer scale rating and a semantic differential scale of bi-polar adjectives. Results supported the hypothesis that channel of communication is a factor in determining how voters react to candidates. Subjects in both cells from this study showed increases in evaluation but for Dole the shifts on the feeling thermometer scale was not significant. Additionally, McKinnon and Tedesco found that in looking more in-depth at the results from the semantic differential scale items, more negative shifts for Dole were observed than for Clinton. These findings help reinforce the need to examine the role of channel as it relates to voters evaluation of political candidates. Furthermore, and perhaps more importantly, "these differences by medium continue to challenge Vancil and Pendell's (1987) finding that viewer-listener differences in the Kennedy-Nixon

debates were merely a myth (McKinnon and Tedesco, 1999, p.205).

Literature on Gender Differences in Voter Learning

While research on the impact of gender on voter learning is scant and mixed in the conclusions reached, one conclusion that most researchers seem to agree on is that men and women are "substantially different political animals" (Hayes & Makkai, 1996, p. 48). Hayes & Makkai go on to argue that women have not only traditionally been less active in politics but they also seem to be less knowledgeable about political issues. Additional studies by Dowse and Hughes (1971) and Owen and Dennis (1992) support this argument in their research which found that boys tend to learn more about politics from the media than girls.

Hayes and Makkai (1996) used the 1990 Australian National Election to study the impact of media of a campaign on men and women. Their results showed that mass media did have a significant impact on political attitudes and voting behavior, but that this effect is limited to the males in the study. For their study, gender was a determining factor in scores of political sophistication.

During the 2000 primary, Kenski conducted a study which surveyed male and female participants between December 14,

1999 and March 8, 2000. The survey was a list of questions designed to test political knowledge by asking about the issue positions presidential candidates Bill Bradley, Al Gore, and John McCain. Their results showed that gender was again a significant predictor of political knowledge. Women were far more likely than men to say that they did not know the answer to a question, but also were more likely to answer incorrectly when giving a "substantive response." (p.27) The results of this study fall in line with those of previous ones which argue that women and men do in fact process and respond to political information differently.

The literature discussed to this point helps support the inclusion of research questions in this study which focus on gender differences in voter learning and candidate evaluation. Very few studies were uncovered in review of prior literature that focus primarily on gender differences in learning across different channels of communication.

A study by Barrett and Lally (1999) examined computer mediated communication in an online learning environment. This study focused on a "small community of postgraduate distance learners and their tutors" (p. 52). A content analysis of the on-line dialogue which occurred was used to investigate learning in this community. Their results showed that learning across men and women from this community was

not statistically different. Results did show statistically significant differences in the social and interactive patterns between men and women but no strong impact of learning.

A subsequent study by ChanLin (2001) tested aspects of procedural learning versus descriptive learning in a group of 357 eighth and ninth grade boys and girls. The students were given a lesson plan on computers that related to mathematical and science information. The lessons plan required students to master somewhat complex procedural steps in accessing information (procedural learning) as well as comprehending the material they were exposed to (descriptive learning). The results of the study show that gender factors were significant in procedural learning but not in the descriptive learning. ChanLin states "boys outperformed girls only in procedural knowledge" (¶ 26).

This concludes the discussion of the relevant literature to the research questions and variables being tested in this study. The literature clearly indicates that political advertising, news coverage of campaigns and debates all contribute in their own way to voter learning and the pictures voters form of candidates. As for the literature on message format and channel differences, there are arguments on all sides as to which message format is

best and in which channel each is most effective. This study to helps clarify some of this debate by using multiple political message formats and placing them across two distinctly different channels of communication.

To that end, the research questions addressed in this study incorporate the need for a closer examination of the role that the channel plays in the communication process while also applying it political campaign messages and the impact to voters. Voter learning and candidate evaluation across television and Internet channels are examined in depth to better understand the impact to voters. With this in mind, the specific research questions addressed by this study are as follows:

RQ1: Does the channel through which these messages (campaign advertisements, broadcast news story and debate) are communicated affect voter learning from those messages?

RQ2: Does the channel through which a message (campaign advertisements, broadcast news story and debate) is communicated affect the evaluations of political candidates?

While these two research questions represent the primary focus of this study, additional focus is given to

the impact of the channel as it affects a voter's expressed likelihood for future information seeking activity or behavior and gender as it plays a factor in how users are affected by the messages and the channel through which those messages are received. Since very little research includes gender differences in learning (as presented in this chapter), especially when the context is political knowledge and channel differences, the secondary research questions included in this project as are as follows:

RQ3: Does the channel through which voters receive a campaign message (campaign advertisements, broadcast news story and debate) affect their expressed likelihood for additional information seeking activity?

RQ4: Are there difference by gender in what voters learn from exposure to political messages between television and Internet channels of communication?

RQ5: Are there differences by gender in how voters evaluate candidates between television and new Internet channels of communication?

These research questions posed by this study are stated as such, with no direction of influence noted, since the goal of this research is to try and understand what impact

the channel of communication has on the impact of a political message to voters. Chapter 4 focuses on the methodology used in this study, including a discussion of the stimuli, the survey instrument utilized and statistical analysis performed.

Chapter 3

Methodology

This study utilizes an experimental design to determine the effects of the channel on candidate evaluation and voter learning. Experimental research designs allow for "manipulation of the independent variable, random assignment of subjects to a group, control for extraneous variables, and measurement of subjects' behavior" (Frey, Botan, Friedman, & Kreps, 1991).

The Sample

A total of 608 undergraduate students and 150 adult participants (22 years of age or older) comprise the subjects in this study. A complete breakdown of the demographic composition of the sample groups is included in the next chapter. The adult sample group is included as a subset of the larger sample in order to trace similarities and differences among responses by age. While this smaller group is not of sufficient size to offer direct comparisons with the student group, it does allow for some insights about age differences and learning, especially where new media such as the Internet are included. Details regarding

the adult sample, its selection process, and procedures are addressed later in this chapter.

The student subjects for this study were drawn from undergraduate students enrolled at The University of Oklahoma. This sample does not represent a truly random sample, nor does it make any claims about being a true representative sample of the general population. Many studies of this nature rely on volunteer student participation for their execution and interpretation of results. Students participating in this study were recruited through a total of 15 sign-up sheets posted within departments at the university as well as through voluntary participation of undergraduate classes at the university. Once students agreed to participate on a stated date and time, they were randomly assigned to one of the six experimental groups used in this study. Only attempts for gender balance between groups was used with no distinction for equal representation of expressed political affiliation.

The experimental configuration used in this study was a factorial 3 x 2 design. Three different types of campaign messages, a set of televised campaign advertisements, a broadcast news story, and a debate segment, were tested across two separate channels of exposure, the television and the Internet.

The Stimuli

The stimuli selected for this study were campaign messages selected from the 2000 U.S. Senate race in Virginia between George Allen and Chuck Robb. Campaign related messages for these two candidates were selected based on the belief that these candidates would be unknown to the subject pool in Oklahoma and would allow for a more direct testing of channel differences in voter learning and candidate evaluation. A second criterion used in the selection of the stimuli was to maintain content consistency wherever possible to control for the influence of extraneous information. To this end, the campaign advertisements, the broadcast news story, and debate segment chosen all dealt directly with one issue from the campaign, education. Additionally, each of three stimuli selected were of roughly the same length in time so the subjects of each experimental group would be exposed to the candidates for roughly the same amount of time. In this Senate race between Allen and Robb, education was one of the primary issues on which the candidates had differing issue positions and was a focal point throughout the election which contributed to the availability of campaign advertisements and news coverage of this issue for the experiments.

The Televised Campaign Advertisements

The four advertisements chosen for this study were from a larger collection of 37 advertisements run by the two candidates. All commercials aired during the highest-rated news segment, the 6:00 o'clock broadcast on WDBJ -Channel 7 (in Roanoke, Virginia). The news and advertisements had been recorded previously by members of an election team working on a comprehensive Election 2000 project. In accordance with the criteria outlined earlier, the televised campaign advertisements selected all focused on the issue of education. To ensure a balance between the candidates, one positive and one negative ad for each candidate were randomly selected from the recorded population of ads. The advertisements were dubbed onto a master videotape and alternated between candidates, with the positive Allen campaign advertisement shown first. All of the campaigns ads were shown consecutively to the experimental groups with only 1-2 seconds of black screen in between. Participants were given no specific instructions prior to the viewing session except to inform them that they would be watching a set of campaign advertisements for George Allen and Chuck Robb who were running for a United States Senate seat in Virginia. No mention was made about the political party affiliation for either candidate. Upon completion of the

viewing sessions, participants completed the post-test survey (described later in this chapter).

The Broadcast News Story

The news story was one aired on WDBJ - Channel 7 in Virginia. The station was conducting a weekly series entitled "The Senate Race: By the Issues" and which aired on September 7, 2000 and for approximately 2:48 minutes. The focus of the entire story was on the education issue, and examining each of the candidates, Allen and Robb, on that issue. Much of the story was reporter voice-over, with some on screen text displays that sequentially list Allen and Robb's specific policy stands on topics related to education in Virginia. The story was selected on the criterion that it made attempts to balance the positions and views each of the candidates on the issue of education. Although most of the story is reporter voice-over, each of the two candidates does get some direct camera time (approximately 20 seconds for Robb and 28 seconds for Allen in direct sound bites from the candidates as they address different groups). Additionally, the candidates are seen on screen roughly 1:45 of the total 2:48 minutes of the story.

The story was dubbed onto a master videotape for use in the experiment viewing session. Participants were told only

that they would be viewing a brief news story which aired in Virginia and was about the two candidates, George Allen and Chuck Robb, running for a United States Senate seat in Virginia during the past election.

The Debate Segment

The debate segment was drawn from the third and final debate between Allen and Robb for the campaign. It was held on Sunday, October 22, 2000 at the studios of WDBJ - Channel 7, and aired state-wide at 7:00 pm EST in Virginia. A copy of the debate was obtained from the Center for Governmental Studies at the University of Virginia, sponsor for the debate. The debate was moderated by Larry Sabato, Director for the Center for Governmental Studies at the University of Virginia and had four panelists (two broadcast journalists, one newspaper reporter and a college student from the University of Virginia). The segment of the debate used in the experiments was the closing statements at the end of the debate. Each candidate had a one-minute time frame for their remarks. Chuck Robb spoke first as decided by the guidelines for the debate.

In keeping with the education issue content of the other materials, attempts were made to isolate a segment of the debate where each candidate responded to a question only

about education. The questions posed during the debate did not allow for this and, therefore, the closing statements were selected because they accomplished two goals: 1) there were direct statements by each candidate in the closing remarks about their positions on education, and 2) it kept comments and details about positions on other specific issues to a minimum. As in the campaign advertisement and broadcast news story groups, participants in the debate groups were told only they would be watching a debate segment from a United States Senate seat race in Virginia between George Allen and Chuck Robb.

Implementation of Experiments and Post-test Survey

Student participation in the experiments was, as mentioned earlier, solicited through sign-up sheets located in the Department of Communication at the University of Oklahoma and through voluntary class participation from undergraduate courses throughout the university. Using this method of recruitment required multiple sessions to obtain the overall total of 304 participants in the television cells and 304 participants in the Internet cells. Specific breakdowns of the demographic composition for each group are provided in the following chapter. Each of the sessions was conducted in identical manner as described here,

respectively, for the television and Internet cells. Additionally, before beginning any experiments students, were asked to sign an informed consent form which is the voluntary participation agreement for research conducted at the University of Oklahoma involving the use of human subjects. Copies of all survey materials and procedures for executing the experiments were submitted and approved by both the university Institutional Review Board and the Department of Communication prior to data collection.

Television Groups

Participants for the television groups were seated in a classroom with a television and video cassette recorder. The group then watched a taped copy of one of the stimuli described earlier, either the campaign advertisements, the broadcast news story, or the debate segment. Each group viewed only one type of campaign message per session. Groups were kept to a maximum of 25 per session and, on occasion, had as a few as 10 participants session. Sessions were repeated in the exact same manner for each of the three stimuli until a sample size of roughly 100 participants per stimuli was obtained.

Upon entering the classroom, the participants were only told that they would be viewing either the news story, the

campaign ads, or the debate segment which was from the U. S. Senate race between George Allen and Chuck Robb in Virginia. No mention was made of the party affiliation for either candidate. The participants then watched the videotape version of the stimulus being tested. Upon completion of the videotape, participants were given a survey to complete which corresponded to the stimulus they viewed. The exact format of the survey and measurement techniques utilized are discussed after this segment on procedures.

Internet Groups

For the Internet groups, again student participants were solicited in the same manner as the television groups. These cells were smaller and averaged about 12 students per session. Students were seated at individual computer terminals equipped with headphones for the experiment. On the computer screen was a message and instructions for students to "Click Here to begin experiment." Students put on the headphones and watched a streaming video version of the same stimuli that the television groups watched: either the news story, televised campaign advertisements, or debate segment, depending in which cell the students were participating. Headphones were used to minimize

interference from the noise of the surrounding computers and participants.

Once students finished watching the streaming video, they were given instructions to use the 'Back' button on the browser tool bar and return to the start page which then instructed participants to "Click Here to continue." The Internet page that corresponded with this link was a complete text version of the material they had just viewed. For example, after viewing the streaming video of the news story, participants continued onto the next page which contained the complete text to the news story they just watched. The same was done for the campaign advertisements and for the closing statements from the debate. The page that this text appeared on was designed and formatted in such a way to represent a page from the Internet site of the station WDBJ Channel 7. Every attempt was made to make the experience mirrored how information would appear on an actual news website. (See Appendices A - C for a hard copy of the actual web page layout.) All materials, including the streaming video and the web pages were loaded onto the university's server and run off of an existing web site so that the entire experience and exposure replicated, as closely as possible, an actual on-line activity and interaction.

Participants were instructed that they had approximately 5-10 minutes to look through information presented on this web page, including links that would allow them to go back and watch the streaming video again. In the case of the televised campaign advertisements, individual links were also made available to go back and watch each of the four ads independent of one another. Once students had indicated that they had finished looking at the information presented, they used a link at the bottom of the page which stated "Click here to start survey." This link took participants to an on-line version of the same paper survey completed by the television groups. The survey was created using Perseus Survey Solutions software which allows participants to complete the survey electronically and submits the completed survey to a designated email account. Once downloaded into email, the survey can be imported into a database created by the survey software.

The Post-test Survey Instruments

Voter learning measurement

In order to measure voter learning from each type of media message, a set of issue statements were constructed from each of the news story, set of televised advertisements, and the closing statements of the debate.

As the principal investigator, I viewed each of the three media messages and constructed a list of issue statements from each based on the verbal content presented. No statements were developed about the visual content.

In the news story a total of 11 issue statements were developed (see Appendix A). Likewise with the set of four televised advertisements, a total of 11 issue statements were constructed. The allocation of how many statements came from each of the four advertisements is as follows: three statements from the positive advertisement aired by Allen; three statements from the negative advertisement aired by Allen; three statements from the positive advertisements aired by Robb; and two statements from the negative advertisement aired by Robb.

For the debate segment utilized in the study, a total of nine issue statements were developed. The material presented by each candidate in the closing statements did, as discussed earlier, reference issues other than just education. However, the issue statements were again only drawn from the verbal content. In lieu of points made that directly related to education, consideration was given to constructing statements that referenced candidate character or qualities.

For each of the three media message formats, participants were asked to circle the name of the candidate which matched the issue statement presented. Three possible options were listed for each issue statement and were listed as follows: (1) George Allen; (2) Chuck Robb; or (3) Don't know. The category of 'don't know' was included so respondents would not feel obligated to simply guess if they truly could not recall the information.

Measurements of candidate evaluation

To directly measure candidate evaluation across the two channels of exposure, three separate measurements were utilized. The first of these was a feeling thermometer scale for each candidate. This feeling thermometer was adapted from a national study on the 2000 election conducted by Dr. Lynda Lee Kaid and a team of researchers from universities around the United States in the fall of 2000. Additionally, this type of measurement has been utilized by countless other studies measuring candidate evaluation and is a long standing question asked by the American National Election Study. Participants were asked on the survey to rank each candidate on a scale or zero to 100, with a rating of 50 being considered neutral. Mean scores within each

cell were calculated for purposes of comparison between and within the experimental groups.

The second type of candidate evaluation measurement utilized was a simple five-point Likert-type scale for each candidate. This scale is included in order to obtain an overall rating for each candidate by participants. The Likert scale, originally developed by Rensis Likert (1932), is often used to measure "the extent of a person's feelings or attitudes toward another person, event, or phenomenon" (Frey, et al., p. 102, 1991). According to the adaptation of the scale in this study, participants indicated a rating between one (negative) and five (positive) for Allen and Robb.

The third and final measurement of candidate evaluation was a 7-point semantic differential scale. Originally constructed by Osgood, Suci, and Tannenbaum (1957), the semantic differential scale measures "the meanings people create in response to a specific stimulus" (Frey, et al., 1991, p. 104). Since its introduction, the semantic differential scale has become "one of the most popular methods of measuring opinions" (Carter, Ruggels,& Chaffee, 1968, p. 666). This scale presents a set of stimuli, words or phrases, representing polar-opposite terms.

The scales used in this study are a list of 12 bipolar adjectives upon which to rate Allen and Robb. These adjectives include qualified-unqualified, sophisticated-unsophisticated, honest-dishonest, believable-unbelievable, successful-unsuccessful, attractive-unattractive, friendly-unfriendly, sincere-insincere, calm-excitable, aggressive-unaggressive, strong-weak, and active-inactive. These adjective pairs were adopted from the National Election 2000 project conducted on the presidential race.

Participants were asked to mark a rating for each candidate among each set of bipolar adjectives. Additionally, participants were provided with an example to illustrate how the scales should be marked to avoid any confusion. To minimize the likelihood for a participant to simply go down the list marking only in one direction, the adjectives were periodically alternated so that all positive or negative adjectives were in the left or right side of the page.

Expressed future information seeking behavior

The third research question addressed in this study asks if the channel through which an individual receives a campaign message affects their likelihood for seeking out additional or future information and participation in

campaign related activities. To answer this question a set of 10 statements were adapted from the 2000 national election project survey discussed earlier. These statements are listed in their entirety in the copies of the surveys included as appendices A-C and include measures such as the likelihood for seeking additional information via television, newspaper, the Internet, or a candidate's campaign office. The statements also ask for a rating of likelihood for participation in other campaign related activities including participating in an online chat forum, speaking with friends, donating money to a campaign and voting in the next election.

To measure the likelihood for each of these behaviors and actions, a five-point Likert scale was utilized. Participants rate their likelihood for participating in each of these activities on a scale of 1 (not very likely) to 5 (very likely). The same scale is used for all groups across each of the stimuli discussed.

The Adult Groups

The sample sizes for the adult groups totaled 50 participants for the political campaign advertisements stimuli, 50 participants for the broadcast news story, and 50 participants for the debate segment. These totals are

split evenly between those who participated in the television cells and the Internet cells.

The adult groups included in this study are a much smaller subset of the larger student group. While the adult numbers are not large enough to provide a direct comparison with the larger students groups, the inclusion of the adult groups is important because it affords a look at some of the similarities and differences that arise when looking at political messages, especially when one of the channels of exposure is a "newer medium" such as the Internet.

In recruiting participants for the adult groups, a temporary leasing arrangement was made with Sooner Mall in Norman, Oklahoma. The experiments and surveys were administered at a leased store front in the mall on April 6-8, 2001 and April 20-22, 2001. Utilization of this space in the mall provided access to a large group of potential respondents from varying demographics. While this sample represents a convenience sample in regards to those who agreed to participate, this approach made access to an adult group population more feasible and quicker obtainment of the needed number of participants.

The research conducted at Sooner Mall was performed in conjunction with a second study which also utilized experimental methodology and similar equipment which

maximized responses for both studies. A set of six desktop computer systems and six individual 11" screen television sets with built in VCRs were transported from a research lab at the University of Oklahoma and set up on tables at the mall facility. This equipment was set up to allow participants to come and participate on an individual basis at a single research station. Each television set and computer was equipped with headphones to prevent any interference from other participants or mall noise while viewing the stimuli.

Those individuals who stopped by the research area to inquire about the project were instructed that this was research related to voters' reactions to various types of political messages being conducted by researchers from the University of Oklahoma. Participants for the study were compensated $10 for participation in one study which lasted approximately 30 minutes.

Upon agreeing to participate in the study, participants were randomly assigned to one of the three stimuli (already discussed in this chapter) in either the television or Internet cell. Assignment to the television or Internet cell was alternated as participants arrived. Once the assignment to one of the stimuli was made, participants were given an informed consent form for their review and

signature. After signing the consent form, the participant watched the same stimuli used in the student groups. The participant was seated at one of the individual computer or television research stations and instructed to view the view clip of the stimuli that would be played first and then once it finished playing they were allowed to continue. For the television viewers, participants continued directly to the paper survey.

The only difference between the television groups of adult participants and the television student groups is the utilization of the individual television sets instead of groups viewing the message together. Internet viewers, as with the student groups, were instructed on their computer screen to "click here to continue" once the video clip finished. This link took the participant to the exact same screen that student participants were shown. (This screen had text of the message just viewed, and links that would allow the viewer to go back and watch the clip again if one chose to do so).

Once the participant had spent as much time as they wanted with this page and exploring the links on it, a line at the bottom of the screen instructed them to inform the research administrator on location that they were ready to continue. At this point, the participants in the Internet

groups were given a paper copy of the survey to complete. This paper survey was an exact hard copy version of the online survey completed by the student groups in the Internet lab at the University of Oklahoma. Paper surveys were utilized in this manner since multiple Internet connections at the mall location were both infeasible and cost prohibitive to allow completion of an online survey.

Analysis of Variance

Once all surveys were collected, the data were entered into an SPSS database for purposes of statistical analysis and comparison. In order to test hypotheses regarding the interaction between channel and format, a two-way Analysis of Variance (ANOVA) test was performed. ANOVA were conducted to determine tests for statistically significant differences in the average value for the outcome of interest associated with nominal or categoric attributes of the subject, such as gender, social class, or, in this instance the channel and format to which the subject was exposed. A one-way ANOVA tests for statistically-significant differences on one dimension, such as format, without considering any other attribute. A two-way test controls for a second attribute, and compares the differences in means across both dimensions.

In order to most correctly test for the relationships emerging in a two-way analysis, it is important to also test for potential interaction effects between the two independent variables. To do otherwise would allow for the potential masking of a significant effect on one predictive dimension within cases for one category for the other predictive dimension. Such masking could lead the researcher to draw potentially erroneous conclusions based on the lack of statistical significance observed in the analysis.

When statistically-significant interaction effects were observed in this analysis, sets of one-way analyses were performed within each channel across formats, or within each format across channels, to ascertain the existence of statistically-significant differences on the format dimension that might vary across channels, or vice-versa.

Chapter 4

Results

Overview

There are 608 subjects in the student groups. The student sample breaks down into 211 subjects in the campaign advertisement groups; 200 subjects in the broadcast news story groups; and 197 subjects in the debate segment groups (see Tables 1-3). The adult group has a total of 150 subjects, divided into groups of 50 subjects each for the campaign advertisement groups, broadcast news story groups, and the debate segment groups (see Tables 4-6). An overview of the demographic composition and statistical analysis of the adult group is presented in the later half of this chapter. Discussion of the results will follow the order of the research questions posed in this study for each of the two groups, students and adults. The research questions are:

RQ1: Does the channel through which these messages (campaign advertisements, broadcast news story and debate) are communicated affect voter learning from those messages?

RQ2: Does the channel through which a message (campaign advertisements, broadcast news story and debate)

is communicated affect the evaluations of political candidates?

RQ3: Does the channel through which voters receive a campaign message (campaign advertisements, broadcast news story and debate) affect their expressed likelihood for additional information seeking activity?

RQ4: Are there difference by gender in what voters learn from exposure to political messages between television and Internet channels of communication?

RQ5: Are there differences by gender in how voters evaluate candidates between television and new Internet channels of communication?

Student Groups

Tables 1, 2, and 3 illustrate the demographic composition for each of the three message format groups, and compares them by channel. The campaign advertisement groups (Table 1) have 105 total subjects in the television cell and 106 in the Internet cell. The television subjects include 52 men (49.5%) and 53 women (50.5%). The Internet group has 53 men (50.0%) and 53 women (50.0%). The racial composition of the television group is 89 Anglo white (84.8%), 3 African American (2.9%), 4 Asian / Pacific Islander (3.8%), 1 Native

American (1.0%), 1 Spanish / Hispanic (1.0%), 2 Multi-racial / Mixed race (1.9%), and 5 Other (4.8%). The Internet ad group has 79 Anglo White (74.5%), 9 African American (8.5%), 4 Asian / Pacific Islander (3.8%), 7 Native American (6.6%), 4 Spanish / Hispanic (3.8%), and 3 Multi-racial (2.8%).

The political affiliation among subjects of the campaign advertisement groups is 31 Democrats (29.5%), 54 Republicans (51.4%), 16 Independents (15.2%), and 4 Other (3.8%) in the television group. Among Internet subjects, the breakdown is 37 Democrats (34.9%), 51 Republicans (48.1%), 13 Independents (12.3%), and 5 Other (4.7%).

Table 2 shows the demographic composition for the subjects viewing the broadcast news story. The gender composition for the television group is split evenly with 50 men (50.0%) and 50 women (50.0%). The Internet group has 49 men (49.0%) and 51 women (51.0%). The racial composition of the television news group is 84 Anglo white (84.0%), 8 African American (8.0%), 5 Asian / Pacific Islander (5.0%), and 3 Native American (3.0%). Among the Internet news group, the composition is 83 Anglo white (83.0%), 5 African American (5.0%), 3 Asian / Pacific Islander (3.0%), 4 Native American (4.0%), 4 Spanish / Hispanic (4.0%), and 1 multi-racial / mixed race (1.0%). The political affiliation for each group is 32 Democrats (32.0%), 51 Republicans (51.0%),

13 Independents (13.0%), and 4 Other (4.0%) for the television group and 33 Democrats (33.0%), 45 Republicans (45.0%), 19 Independents (19.0%) and 3 Other (3.0%) for the Internet group.

Table 3 shows totals and demographic composition of the debate segment groups. There 50 men (51.0%) and 49 women(50.0%)in the television group and 48 men(48.5%) and 50 women (50.5%) in the Internet group. The television group has a racial composition of 73 Anglo white(74.5%), 9 African American (9.2%), 6 Asian / Pacific Islander (6.1%), 4 Native American (4.1%), 5 Spanish / Hispanic (5.1%), and 2 Other (2.1%). Racial composition among the Internet group breaks down to 52 White (52.5%), 3 African American (3.1%), 18 Asian / Pacific Islander (18.2%), 6 Native American (6.1%), 6 Spanish / Hispanic (6.1%), 5 Multi-racial / mixed race (5.1%), and 8 Other (8.1%). The political affiliation for the debate groups is divided into 37 Democrats (37.8%), 46 Republicans (46.9%), 14 Independents (14.3%), and 1 Other (1.0%) for the television group and 48 Democrats (48.5%), 35 Republicans (35.4%), 11 Independents (11.1%), and 4 Other (4.1%) in the Internet group.

The first step in this analysis was to run a two-way ANOVA test for each dependent variable, while controlling for channel and message format. This test is performed to

uncover any potential interaction effects among the two controlling variables (i.e., channel and message) for each of the criteria measured in this study: (1) voter learning; 2) candidate evaluation; and 3)expressed likelihood for future information seeking or campaign related behavior. Once the presence or absence of interaction effects was established, then a second tier of analysis was performed for those cases where interaction effects were observed. In the cases where both significant main effects and interaction effects were observed, the one-way ANOVA test was performed for the individual controlling variables (channel and message) since "it is not meaningful to test the main effects when interaction exists" (Agresti & Finlay, 1997, p. 455).

To facilitate a concise discussion of the data analysis, the results are broken down into, first, a discussion of the student group (which represents the larger of the two data sets) and then a discussion of the results for the adult group. Within each of the two groups, results are presented first by the criteria tested (i.e., voter learning, candidate evaluation, and future information seeking and campaign participation behavior)followed by a discussion of the two-way ANOVA results and, where applicable, the t-test analysis between message formats for

each variable. Results for research questions four and five are discussed in the next chapter. The discussion of criteria being measured follows the order of the research questions presented in this study.

Voter Learning

Table 7 shows the breakdown of mean scores and results of the two-way ANOVA tests conducted on the total number of correct responses scored within the student group for voter learning. No interaction effects are observed on these measurement criteria, indicating that the main effects of the two-way ANOVA are valid for the purposes of comparison. Significant main effects emerge between mean scores when comparisons are made across message and across channel.

As noted in Table 7, the main effects across message are significant at the .001 level ($F(2, 602) = 7.551$) with campaign advertisements showing the highest overall mean score (mean = 6.61). The t-test analysis between the three message formats indicates statistically significant relationships between campaign advertisements and debate as well as the broadcast news and debate. The relationship between campaign advertisement and the debate groups is highly significant ($t(406) = 4.162$, $p \leq .001$). Results of the t-test between the broadcast news and debate groups also

show a statistically significant relationship ($t(395) = 2.177$, $p \leq .05$). Overall, the campaign advertisement group performs best in overall learning when compared across the three message formats.

Additional main effects occur across channel and are presented in Table 7. Table 7 indicates that for each of the three message formats, the highest mean score on the number of correct responses to the learning statements are observed among the Internet subjects (mean = 6.43). These two-way ANOVA results indicate that channel is significant when comparing learning across channel, regardless of message ($F(1, 602) = 6.318$, $p \leq .025$). Internet subjects average .56 responses higher than television subjects.

Overall Candidate Evaluation, Likert-scale Rating

The second research question addressed in this study deals with variations in candidate evaluation by channel of exposure to the three message formats. The first measurement of candidate evaluation is the 5-point Likert scale for George Allen and Chuck Robb.

Tables 8 and 9 show the results of the two-way ANOVA tests on the 5-point Likert scale rating for George Allen and Chuck Robb respectively. These scales measured an overall positive or negative attitude toward the candidate

with a value of one indicating most negative and a value of five indicating most positive. In Table 8, main effects for Allen are observed in the comparison across channel. Differences in mean scores across channel for Allen are significant at the .05 level ($F(1, 598) = 4.280$). Internet subjects rate Allen highest with a mean score of 3.26. No interaction effects are observed between message and channel for Allen on this dimension.

In contrast to the ratings for Allen, Table 9 shows significant main effects for Robb in both the comparison across message and across channel. There are no interaction effects which occur for this variable for Robb. The results for Robb on comparisons across message are highly significant ($F(2, 599) = 39.114$, $p \leq .001$). For Robb, his highest mean score across the three message formats is observed in the debate group (mean = 3.28). Results of the t-test analysis show highly significant relationships between the broadcast news group and campaign advertisement group ($t(406) = 7.985$, $p \leq .001$) and between the debate group and campaign advertisement group ($t(403) = -7.601$, $p \leq .001$). These results indicate that Robb's evaluation is highly sensitive to the message format in which he appears. Significant differences for Robb are also observed across channel with the Internet groups rating Robb .17 points

higher than the television group. This difference is significant at the .025 level ($F(1, 599) = 4.965$).

Feeling Thermometer Ratings

The second measurement of candidate evaluation is the feeling thermometer scale for George Allen and Chuck Robb. Tables 10 and 11 show the results of the two-way ANOVA and t-tests on the feeling thermometer scales for Allen and Robb respectively.

As seen in Table 10, main effects in both message and channel exist for Allen. Comparisons across message show Allen rated highest by the groups viewing the campaign advertisements (mean score = 58.79) and lowest among the debate groups (mean score = 53.93). These differences across message are significant at the .025 level ($F(2, 598) = 3.605$). Likewise the results from the two-way ANOVA show a highly significant relationship for Allen across channel ($F(1, 598) = 11.554$, $p \leq .001$). The Internet subjects rated Allen at an average of 58.70 and television subjects averaged 53.30, a difference of 5.40 points. Results in Table 10 show that there are no interaction effects present for this variable.

Table 11 shows the two-way ANOVA results for Chuck Robb on the feeling thermometer scale. Comparisons across

message format for Robb are highly significant for this variable ($F(2, 597) = 43.335$, $p \leq .001$). Robb receives the lowest average score from the campaign advertisement groups (mean score = 46.09) and the highest from the broadcast news groups (mean score = 60.23). T-test results show statistically significant differences between the campaign advertisement group and the debate group. The differences are highly significant ($t(401) = -6.902$, $p \leq .001$) and reinforce earlier results for Robb which indicated that his evaluations are extremely sensitive to message format. As with the results in Table 10 for Allen, there were no interaction effects observed in this analysis.

The Semantic Differential Scales

The 12-item semantic differential scales are the third measure of candidate evaluation tested for each candidates. In order to facilitate a more precise discussion of the results for this measure, the 12 bipolar adjectives scales were collapsed into one summary variable for each candidate (ALLENEVAL, ROBBEVAL). A more detailed comparison of the individual candidate characteristics are presented in chapter 6 as warranted by the results from the initial two-way ANOVA tests. Before completing the ANOVA analysis, a Cronbach alpha test for reliability was conducted on each of

the semantic differential scales for Allen and Robb within the student and adult groups. In the student group, the score for Allen was .8009 and .8197 for Robb. Among the adult subjects, the Cronbach alpha score was .8180 for Allen and .8672 for Robb. Each of the scores represents an acceptable level of reliability for this type of measurement scale.

Table 12 shows that an interaction effect is present for the Allen on the combined semantic differential item score. Message is also shows up as highly significant but the interaction effect takes precedence over the main effect findings. It is interesting to observe also that this measure of candidate evaluation is only one of the three where Allen's high and lowest mean score ratings deviate from the trends set by the overall positive/negative rating and feeling thermometer score. In both of those measures, Allen's highest mean score came from those viewing the campaign advertisement, regardless of channel. In this measure, those viewing the broadcast news story in the television groups rated Allen highest while the Internet groups viewing the campaign advertisements rated Allen highest.

Table 12 indicates the individual mean scores within each cell for the television and Internet groups. Results

from the t-test analysis show significant differences both across the three message formats within each channel and some significant differences across channel for one of the three message format (campaign advertisements). These results help explain the interaction effect occurring in the original two-way ANOVA tests. First, there is a highly statistical significance between those television subjects viewing the broadcast news story and those television subjects viewing the debate segment ($t(197) = 3.880$, $p \leq .001$). Similarly among all television subjects, a significant difference is observed between the campaign advertisement and debate groups ($t(201) = 2.400$, $p \leq .025$).

In examining the differences across message format for all Internet subjects, statistically significant differences emerge between all three message formats. The strongest relationship is, like the television subjects, between those viewing the broadcast news story and those viewing the debate segment ($t(194) = 4.181$, $p \leq .001$). There are, also, significant differences which emerge between the broadcast news and debate groups ($t(186) = 2.653$, $p \leq .025$) and between the broadcast news and campaign advertisement groups ($t(194) = -2.122$, $p \leq .05$). Overall, these results

indicate that Allen's ratings are highest among the viewers of the broadcast news story, regardless of channel.

When comparisons across channel are made on this variable for each of the three message formats, only one relationship shows up as statistically significant: television campaign advertisements vs. Internet campaign advertisements. This difference is significant at the .05 level ($t(204) = -2.175$). On this message format alone the highest mean scores for Allen are observed among the Internet subjects. For each of the other two message formats, broadcast news and debate, the highest mean scores for Allen on this variable are observed among the television subjects. These results indicate the some message formats may be sensitive to channel influences when it comes to candidate evaluation.

On the overall combined semantic differential score for Robb (ROBBEVAL), message is highly significant ($F(2, 580) = 19.491$, $p \leq .001$). As was observed with the feeling thermometer scores for Allen, those viewing the broadcast news story rated Robb highest (mean = 4.85). Table 13 shows Robb's lowest score is observed among those viewing the campaign advertisements (mean = 4.38). The t-test analyses show statistically significant relationships in the broadcast news and campaign advertisement groups and the

campaign advertisement and debate groups. Both relationships are highly significant ($p \leq .001$). Analysis of the first pair, broadcast news story and campaign advertisement, produces results with a $t(394) = 6.374$. The comparisons between the campaign advertisement group and the debate group produce an equally significant relationship ($t(394) = -4.005$). These results support the earlier trends for Robb in the previous two measures of candidate evaluation (5-point Likert scale and feeling thermometer) that his ratings are strongly influenced by message format.

Expressed Likelihood for Future Information Seeking

The third research question in this study focuses on the individual respondent's likelihood for future information seeking and other campaign related behavior, depending on the channel through which they receive messages. The results of the two-way ANOVA tests for the 10 statements about future information seeking behavior are presented in Tables 14 through 23.

Table 14 shows the results for the first statement, "watch for more ads about the candidates and issues on television." On this item, a statistically significant relationship is observed in the analysis across channel ($F(2, 594) = 29.533$, $p \leq .001$). However, while this

relationship is statistically significant there also is an interaction effect observed between message and channel for this statement. In the analysis for interaction between message and channel, the results produce a significant outcome ($F(2, 594) = 22.993$, $p \leq .001$). T-test analyses produce a number of statistically significant relationships across message formats within each channel in addition to significant relationships across channel for each of the three message formats. For the television subjects, significant relationships are observed between the broadcast news and campaign advertisement groups ($t(203) = -2.707$, $p \leq .025$) and between the campaign advertisement and debate groups ($t(202) = 4.275$, $p \leq .001$). Similar results emerge from the t-tests on the Internet subjects across message format. The relationship between the broadcast news and campaign advertisement groups and between the campaign advertisement and debate groups are both significant at the .001 level ($t(200) = 5.893$; $t(199) = 3.605$). When comparisons are made across channel for each of the three message formats, results indicate significant differences in all three formats. Differences between television and Internet viewers of the broadcast news story and the debate segment are both highly significant ($p \leq .001$). The t-scores for these two groups are -6.336 for the broadcast

news group and -6.159 for the debate group. The differences between the television and Internet subjects for the campaign advertisements is significant at the .05 level ($t(209) = 2.129$). This mixture of significant relationships helps explain the interaction effects observed in the initial two-way ANOVA. Across all television subjects, likelihood for engaging in this activity is strongest among the campaign advertisement group. However, for the Internet subjects, viewers of the broadcast news story indicate the greatest likelihood toward this activity.

Similar results are observed for the second statement about future information seeking and behavior, "watch the news for more information about the candidates/issues". Table 15 shows that a significant relationship occurs in the analysis for channel ($F(1, 594) = 22.066$, $p \leq .001$) but this is offset by the interaction effect between message and channel. This interaction is also statistically significant ($F(2, 594) = 17.785$, $p \leq .001$). Statistically significant differences across message format for all television subjects emerge between the broadcast news and campaign advertisement groups ($t(203) = -2.442$, $p \leq .025$) and between the campaign advertisement and debate groups ($t(202) = 2.328$, $p \leq .025$). A similar pattern is observed among the Internet subjects with significant differences between

the broadcast news and campaign advertisement groups ($t(199) = 5.925$, $p \leq .001$) and between the campaign advertisement and debate groups ($t(199) = -3.818$, $p \leq .001$). T-test results across channel for each of the three message formats show patterns similar to those for the first future information seeking statement previously discussed. Highly significant differences are observed in the campaign advertisement and debate groups across channel ($p \leq .001$). Differences in mean scores across channel in the broadcast news groups are significant at the .05 level ($t(209) = 1.987$). Like the first statement on future information seeking behavior, these results indicate the likelihood to engage in this activity is heavily influenced by both the message format subjects are exposed to as well as the channel of exposure. Additionally, those differences are not consistent across any one channel or message format.

Table 18 shows the results of the two-way analysis for statement 3, "participate in an online or electronic chat or discussion about the candidates or issues". In this analysis, statistically significant relationships are observed across channel and message. Internet subjects indicated a greater likelihood for participation in this behavior (mean = 2.04). Significant differences are also observed across message ($F(2, 594) = 5.263$, $p \leq .025$). The

difference in mean scores between the broadcast news and campaign advertisement groups is significant at the .025 level ($t(405) = 2.744$). Differences between the broadcast news and debate groups are equally significant ($t(387) = 2.641$, $p \leq .025$). Those subjects viewing the broadcast news message format indicated the overall greatest likelihood toward this activity (mean = 2.08). Additionally, there are no interaction effects present between message and channel on this statement.

Table 17 shows the results from the ANOVA analysis for the statement "talk with friends about the candidates/issues". Statistically significant differences are observed across channel for this statement ($F(1, 594) = 15.635$). Internet subjects indicate the greatest likelihood toward engaging in this activity with a mean score of 3.71.

For statement five, "read newspaper articles about the election", a significant difference among mean scores is observed across message format ($F(2, 594)$ 6.279, $p \leq .025$). Those subjects viewing the broadcast news story show the greatest likelihood toward engaging in this activity (mean = 3.75). Results from the t-tests show significant differences between the broadcast news and campaign advertisement groups ($t(406) = 3.523$, $p \leq .001$) and between the broadcast news and debate group ($t(390) = 2.356$, $p \leq$

.025). Additionally, Table 18 illustrates a highly significant relationship among the mean scores across channel. Internet subjects scored higher on this statement with a mean score of 3.69. No interaction effects are observed on this statement.

Table 19 shows the results for the statement likelihood for "contacting a candidate's campaign for more information". Differences in the mean scores across message are statistically significant for this statement. The t-test results show significant differences between the broadcast news and campaign ad groups ($t(406) = 1.995$, $p \leq .05$) and the broadcast news and debate groups ($t(389) = 3.004$, $p \leq .025$). There are no significant main effects across channel or interaction of message and channel.

As for expressed likelihood toward "using the Internet to find out more information about the election in general", Table 20 shows the results from that analysis. Statistically significant differences are seen when comparing across message and channel. As with the previous statement, "contacting a candidate's campaign", the highest mean score across message is observed in the broadcast news story group (mean = 2.96). Results from the t-test show a highly significant difference between the broadcast news

group and the campaign advertisement group ($t(406) = 3.341$, $p \leq .001$).

Analysis of the mean scores across channel also produces a statistically significant relationship ($F(1, 596) = 5.663$, $p \leq .025$). Mean scores are highest among Internet subjects with a mean score of 2.85. No interaction effects are observed for this information seeking statement.

For statement number eight of the expressed likelihood for future information seeking behavior, "vote in the next election", no significant differences were observed across message or channel. Additionally, there were no interaction effects. Mean scores for all three message formats and both channels are shown in Table 21.

Table 22 shows the two-way ANOVA results for statement nine, "use the Internet to find out more information about a specific political issue". Statistically significant differences emerge in the comparison across channel ($F(1, 593) = 7.430$, $p \leq .025$). For this statement, Internet subjects indicated the greatest likelihood toward this activity with a mean score of 3.18. For this information seeking statement, there are no main effects across message or in the interaction of message and channel.

Table 23 shows the results for the last statement related to future information seeking behavior, "use the

Internet to go to a candidate's website". Results from the two-way ANOVA tests show statistically significant differences in the comparisons across message and channel. In comparing across message, those viewing the broadcast news story averaged highest with a mean score of 2.94. Significant differences were observed from the t-tests between the broadcast news and campaign advertisement groups ($t(405) = 2.086$, $p \leq .05$) and the broadcast news and debate groups ($t(388) = 2.964$, $p \leq .025$). In examining the differences across channel, again there are statistically significant differences observed ($F(1, 595) = 12.774$, $p \leq .001$). Internet subjects rate highest on this statement with a mean score of 2.91. This is a difference of .43 points above the television groups.

This concludes the results for the analysis from the student sample in this study. The next section presents the results for the same research questions among all adult subjects in the study and follows a similar order. Results on gender differences, research questions 4 and 5, for both the student and adult groups are presented in the next chapter.

Adult Groups

The total subjects for the adult sample groups is 150. Totals for the adult sample are broken into three groups of 50 subjects each for each of the message formats tested (campaign advertisements, broadcast news story, and debate segment). Tables 4 through 6 illustrate the demographic composition for each of the three message format groups with additional break downs by channel. Table 4 shows the breakdown of the campaign advertisement group by television and Internet cells. This equal division among the two channels tested is consistent across all three message format groups. Of the total 50 subjects viewing the campaign advertisements on television, 13 were men (52.0%) and 12 were women (48.0%). The Internet group also has 13 men (52.0%) and 12 women (48.0%).

Since this group of subjects is not comprised of students, an additional breakdown of the ages for the subjects is also included in Table 4. Within the television group, four fall into the category of 18 - 24(16.0%), nine ages 25 - 34 (36.0%), six ages 35 - 44 (24.0%), four ages 45 - 54 (16.0%), one age 55 - 64 (4.0%), and one over age 65 (4.0%). It should be noted that while the first category for age given is 18 - 24, all of the subjects participating in the adult group experiments were asked if they were over

age 22 to avoid inclusion of college students in the sample. The age breakdown of those subjects viewing the campaign advertisements via the Internet is as follows: one age 18 - 24 (4.0%); nine age 25 - 34 (36.0%); seven age 35 - 44 (28.0%); six age (24.0%); and two age 55 - 64 (8.0%).

The racial composition of the television group is 19 Anglo white (76.0%), five African American (20.0%), and one Spanish / Hispanic (4.0%). The Internet advertisement group is comprised of 16 Anglo White (64.0%), one African American (4.0%), two Asian /Pacific Islander (8.0%), four Native American (16.0%), one Spanish /Hispanic (4.0%), and one Multi-racial (4.0%).

Political affiliation among subjects of the campaign advertisement groups is 14 Democrats (56.0%), eight Republicans (32.0%), two Independents (8.0%), and one Other (4.0%) for the television group. Among the Internet subjects, the breakdown is eight Democrats (32.0%), 14 Republicans (56.0%), three Independents (12.0%).

The demographic composition for the subjects viewing the broadcast news story is listed in Table 5. The gender composition for the television and Internet groups are the same with 12 men (48.0%) and 13 women (52.0%) in each cell. The age ranges for subjects in the television group are seven age 25 - 34 (28.0%), nine age 35 - 44 (36.0%), six age

45 - 54 (24.0%), one age 55 - 64 (4.0%), and two over age 65 (8.0%). For the Internet subjects viewing the broadcast news story the ages are two age 18 - 24 (8.0%), nine age 25 - 34 (36.0%), five age 35 - 44 (20.0%), seven age 45 - 54 (28.0%), and two age 55 - 64 (8.0%).

Twenty one of the television subjects were Anglo white (84.0%), three African American (12.0%), and one Spanish / Hispanic (4.0%). For the Internet news group, the racial composition is 22 Anglo white (88.0%), one African American (4.0%), and two Asian / Pacific Islander (8.0%). The political affiliation for each group is nine Democrats (36.0%), 14 Republicans (56.0%), and two Independents (8.0%) for the television group and eight Democrats (32.0%), 15 Republicans (60.0%), and one Independent (4.0%).

Table 6 provides the demographic composition of the debate segment groups. There are 12 men (48.0%) and 13 women(52.0%)in each of the television and Internet groups. The subjects in the television group are 10 age 25 - 34 (40.0%), six age 35 - 44 (24.0%), four age 45 - 54 (16.0%), four age 55 - 64 (16.0%), and one over age 65 (4.0%). The ages of the Internet subjects are four age 18 - 24 (16.0%), six age 25 - 34 (24.0%), eight age 35 - 44 (32.0%), three each for ages 45 - 55 and ages 55 - 64 (12.0%), and one over age 65 (4.0%).

The debate television group is comprised of 18 Anglo whites(72.0%), two African Americans (8.0%), two Native American (8.0%), and three Spanish / Hispanic (12.0%). Racial composition within the debate Internet group breaks down to nine White (36.0%), one African American (4.0%), six Asian / Pacific Islander (24.0%), one Native American (4.0%), three Spanish / Hispanic (12.0%), three Multi-racial / mixed race (12.0%), and two Other (8.0%). The political affiliation for the debate groups is divided into 11 Democrats (44.0%), 12 Republicans (48.0%), and two Independents (14.3%) in the television group and 12 Democrats (48.0%), nine Republicans (36.0%), three Independents (12.0%), and one Other (4.0%) in the Internet group.

Two-way ANOVA analysis was performed on the adult groups in the same fashion as for the student groups. Results for the adult groups are presented first by voter learning, the measures of candidate evaluation, and then by expressed likelihood for future information seeking behavior. Within each of these measurements, results include a discussion of any observed main and interaction effects for that dependent variable. Results on gender differences are presented in chapter 6.

Voter Learning

Results of the two-way ANOVA tests for the dependent variable correct number of responses are listed in Table 24. There is a significant relationship observed across message format for this variable ($F(2, 144) = 3.643$, $p \leq .025$). Viewers of the broadcast news story scored highest with a mean score of 7.02 correct responses. This is similar to the student group where viewers of the broadcast news story scored highest as well. Results from the t-test analysis show a statistically significant relationship between the broadcast news and campaign advertisement groups ($t(98) = -2.900$, $p \leq .025$). The campaign advertisement group scored lowest on the learning items with an average of only 5.84 correct responses. No main effects are observed in comparisons across channel for this variable. There are no interaction effects present in this analysis so we can rely on the validity of the main effects presented.

Overall Candidate Evaluation

In addressing the second research question of this study, the first measure of candidate evaluation applied is the 5-point Likert scale (5 = positive / 1 = negative) for each candidate. In Table 25, the results for the two-way ANOVA tests are presented for overall evaluation of Allen

among the adult subjects. There are no main effects observed for Allen across message or channel. However, there are interaction effects present for this variable ($F(2, 144) = 3.769$, $p \leq .025$). T-test results conducted across message and channel indicate two significant relationships across message format within the Internet group only. Results indicate a statistically significant relationship between the broadcast news story and campaign advertisement group ($t(48) = -3.205$, $p \leq .025$) and between the campaign advertisement and debate group ($t(48) = -2.130$, $p \leq .05$). No statistically significant relationships across message were observed among the television subjects. Additionally, no statistically significant differences were observed across channel for any of the three message formats. Among Internet subjects, overall, the broadcast news story group scores Allen highest with a mean score of 3.28.

Table 26 shows the two-way ANOVA results for Robb on the same variable (5-point Likert scale). For Robb, no statistically significant relationships emerge across message or channel. In contrast to the ratings for Allen on this measure, there are also no interaction effect present for Robb. Mean scores across message and channel for Robb are included in Table 26.

Feeling Thermometer Scales

The second measure of candidate evaluation applied is the feeling thermometer scale. Table 27 shows the results for Allen on the feeling thermometer scale among the adult subjects. As was observed with the measure of overall candidate evaluation, there are no main effects observed but significant interaction effects are present ($F(2, 143) = 4.403$, $p \leq .025$). Independent sample t-tests show significant relationships within the Internet group as well as one significant relationship across channel (campaign advertisement group). Among Internet subjects, a statistically significant relationship is observed between the campaign advertisement and broadcast news groups ($t(48) = -3.815$, $p \leq .025$). Equally as significant is the relationship between the television campaign advertisement and the Internet campaign advertisement groups ($t(48) = 2.440$, $p \leq .025$). It is worth noting that within the Internet group, the difference in mean scores for Allen between the lowest (campaign advertisement) and the highest (broadcast news story) scores is a difference of 11.80 points. No other significant relationships were observed between the other message formats or across channel.

When the results for the two-way ANOVA tests are examined for Robb on the feeling thermometer only one

significant difference is observed (see Table 28). In the comparison across message, there is a statistically significant relationship present ($F(2, 143) = 3.374$, $p \leq .05$). The groups viewing the debate segment rate Robb highest on this measure (mean = 58.70) while those viewing the campaign advertisements rate Robb lowest (49.36). This represents a statistically significant difference for Robb ($t(97) = -2.496$, $p \leq .025$). There are no main effects observed across channel. Additionally, there are no interaction effects present so we can rely on the validity of the main effects observed in this analysis.

Semantic Differential Scale Ratings

The third and final measure of candidate evaluation is the combined measure derived from the 12-item semantic differential scales. As was done with the student groups, these scales were collapsed into a single new variable (ALLENEVAL, ROBBEVAL) to make discussion of the results more concise. Table 29 illustrates the results for Allen on this measure with statistically significant results observed across message format ($F(2, 143) = 4.645$, $p \leq .025$). Those subjects viewing the broadcast news story rated Allen highest (mean = 4.83) while the debate group rated Allen lowest (more negatively) with a mean score of 4.33. This

relationship is the only one among the three message formats which has statistical significance ($t(97) = 3.001$, $p \leq .025$). No main effects are noted in the comparison between channels and there are no interaction effects present between message and channel.

Table 30 shows the results for Robb on the same measure and has similar results to those observed for Allen. The differences across mean scores in message format are statistically significant for Robb ($F2, 143) = 4.067$, $p \leq .025$). Again, as with Allen in Table 29, results show those viewing the broadcast news story rated Robb more positively (mean = 4.89) while those viewing the campaign advertisements rated Robb lowest (mean = 4.39). Two statistically significant differences are observed among the message formats when independent sample t-tests were performed. The first of those relationships is between the broadcast news and campaign advertisement groups ($t(98) = -2.487$, $p \leq .025$) and the second is between campaign advertisement and debate group ($t(97) = -2.306$, $p \leq .025$). As was observed with Allen, no main effects are present across channel and there are no interaction effects on this variable.

Expressed Likelihood for Future Information Seeking

The third research question proposed in this study deals with likelihood for future information seeking or campaign related behavior fro exposure to political messages. Tables 31 through 40 show the results of the two-way ANOVA and t-tests on these 10 statements for the adult subject groups.

For the first two statements about likelihood for future information seeking behavior, "watch for more ads about the candidates and issues on television" and "watch the news for more information about the candidates/issues", there are interaction effects observed (see Table 31 and 32). These interaction effects override any main effects that might occur for these variables. For the first statement, results in Table 31 indicate that the interaction effect is highly significant ($F(2, 143) = 7.069$, $p \leq .001$).

When comparisons are made across message for each of the television and Internet groups, t-tests show one significant relationship within each group. For television subjects, the relationship between campaign advertisements and debate is highly significant ($t(48) = 3.273$, $p \leq .001$). The television subjects viewing the campaign advertisements show the highest mean score on this statement (mean = 3.60). Among Internet subjects, the same two groups (campaign ads and debate)also produce a statistically significant

difference, this time the debate subjects score highest with a mean score of 3.46 ($t(47) = -2.416$, $p \leq .05$). T-tests across channel for each of the three message formats produce two relationships which are statistically significant. The difference between mean scores for the campaign advertisements for television and Internet subjects represents a difference of .94 points with television subjects scoring highest ($t(48) = 2.482$, $p \leq .025$). The other relationship which shows up as significant is between the television and Internet subjects watching the debate segment ($t(47) = -2.929$, $p \leq .025$). Internet subjects show the greatest likelihood toward engaging in this activity with a mean score of 3.46.

In Table 32, the interaction effects for the second information seeking statement are significant at the .025 level ($F(2, 143) = 4.255$). No statistically significant results are observed among television subjects across message format from the t-tests, however, one relationship among Internet subjects is significant. The difference in mean scores between Internet subjects viewing the campaign advertisements (mean = 2.76) and the broadcast news story (mean = 3.84) is 1.08 points ($t(48) = -3.119$, $p \leq .001$). Across channel t-tests produce one significant relationship: television and Internet campaign advertisements. Those

viewing the advertisements on television average 3.64 for this statement while Internet subjects average only 2.76 ($t(48) = 2.294$, $p \leq .025$).

Table 33 shows the results of the two-way ANOVA and t-tests for the third information seeking statement, "participate in an electronic or on-line chat or discussion about the candidates or issues". In this analysis, main effects across message are present ($F(2, 142) = 4.103$, $p \leq .025$). Those subjects viewing the broadcast news story show the highest mean score (2.30) with those viewing the debate segment record the lowest mean score (1.57). The difference between these two message formats is significant at the .025 level ($t(96) = 2.855$). No main effects are observed in the analysis across channel. Additionally, there are no interaction effects present for this statement.

For statement four, "talk with friends about the candidates/issues", there are significant main effects across message ($F(2, 142) = 3.512$, $p \leq .05$). The highest mean score on this statement among all three message formats is within the broadcast news group (4.06) with the lowest in the debate segment group (3.36). These results are similar to those observed on the previous information seeking statement (statement 3). The difference in these two groups is statistically significant ($t(96) = 2.773$, $p \leq .025$). In

this analysis, there are no main effects across channel and no interaction effects between message and channel.

Table 36 illustrates the results for statement 6, "contact a candidate's campaign for more information". There are significant main effects for both message and channel on this variable. In the t-tests analysis across message, the difference in mean scores in significant at the .025 level ($F(2, 143) = 5.205$). The broadcast news story and campaign advertisement groups score exactly the same on this statement (mean = 2.38). The difference between each of these groups and the debate group is significant at the .025 level ($t(97) = 2.900$).

The comparison across channel is highly significant for this variable ($F(1, 143) = 9.593$, $p \leq .001$). Internet subjects record the highest mean score on this statement (2.46) which is .65 points higher than the television subjects. There are no interaction effects present for this variable between message and channel so the main effects are valid.

Statistically significant differences are also observed for the seventh information seeking statement, "use the Internet to find out more information about the election in general" (see Table 37). Differences in mean scores across message and channel are evident. Among the adult subjects

those viewing the broadcast news story average 3.08 on this statement with those viewing the campaign ads and debate segment averaging 2.90 and 2.34 respectively. The differences among message format is significant at the .05 level. Two relationships show up as significant in the t-test analysis: first between broadcast news and debate ($t(97) = 2.498$, $p \leq .025$) and second, between broadcast news and campaign advertisements ($t(97) = 1.980$, $p \leq .050$).

In examining the differences across channel, the Internet subjects have the highest mean score at 3.06. This average is .54 points higher than the television group. There are no interaction effects occurring for this variable.

For the statement on expressed likelihood to "vote in the next election" , there are no main effects or interaction effects observed (see Table 38). In the final two statements about future information seeking, item 9 (see table 39) and item 10 (see Table 40) there are significant differences.

As noted in Table 39, there are main effects observed across message and channel. Among the adult television subjects, those viewing the broadcast news story expressed the greatest tendency toward this behavior (mean score 3.40) and those viewing the debate segment were least likely to

pursue this activity (mean score = 2.64). This difference is statistically significant ($t(97) = 2.493$, $p \leq .025$).

Similarly, statistically significant differences among mean scores are seen in the analysis across channel ($F(1, 143) = 8.371$, $p \leq .025$). Internet subjects indicate the greatest likelihood toward engaging in this activity with a mean score 3.36. There are no interaction effects present for this statement.

For the final statement, "use the Internet to go to a candidate's website", there significant main effects across channel, but not across message. The difference in mean scores in these comparisons across channel is highly significant ($F(1, 143) = 9.881$, $p \leq .001$). Internet subjects average 3.18 on this statement while television subjects average only 2.39. No interaction effects are present for this variable.

This concludes the presentation of results from the statistical analysis performed on the first three research questions in this study. Results on voter learning, candidate evaluation, and expressed likelihood for future information seeking and campaign participation behavior show support for differences which occur as a product of channel influences. A more in-depth discussion of these results, possible explanations for the differences, and implications

are presented in the next Chapter 6. Chapter 5 covers the results for research questions four and five which ask about differences by gender in voter learning and candidate evaluation across different channels of communication.

Chapter 5

Results on Gender Differences

This chapter focuses on the fourth and fifth research questions addressed in this study: (4) Are there differences by gender in what voters learn from exposure to political messages between traditional (television) and new (Internet) channels of communication?; and (5)Are there differences by gender in how voters evaluate candidates between traditional (television) and new (Internet) channels of communication? Multi-variate ANOVA tests were performed on the student and adult data sets utilizing SPSS for Windows. As with the analysis discussed in Chapter 5, message (M) and channel (C) were included as fixed factors. However, for this analysis, sex (S) was also included as a fixed factor to determine the impact of sex on voter learning and candidate evaluation. Where significant effects involving sex were observed, an independent sample t-test was again conducted to better identify the relationships showing as statistically significant.

Analysis was performed on each of the following variables: (1) overall number of correct responses (CORRECT), (2) the 5-point Likert scale for positive / negative candidate evaluation (VIEWALLEN, VIEWROBB), (3) the

feeling thermometer scale rating for each candidate (ALLENTHEM, ROBBTHEM, and (4))the overall measure of candidate evaluation calculated from the combined semantic differential scales (ALLENEVAL, ROBBEVAL). Tables 41 through 47 show the results from the student groups and Tables 48 through 54 show the results for the adult groups. Tables include both the ANOVA results, t-test results, as well as a breakdown of mean scores divided among all males and all females within that group (student or adult). Results for the student group are presented first, followed by results for the adult groups. Since any significant results in the areas of message and channel were presented in chapter 5, this chapter will focus only on those results which include sex and the interaction between sex (S) and message or channel (M x S, C x S, M x C x S) with the results for the student group presented first.

Student Groups

As noted in Table 41, there was no significant difference in voter learning by sex among all of the student groups. Sex does not show up as a significant factor across message or channel in the number of correct responses scored by student subjects. Similarly in Table 42, there are no significant differences observed across sex in the overall

view of Allen on the 5-point Likert scale. Mean scores across both males and females remain very close when compared across message and channel. However, in table 43 sex does show up as significant for the overall view of Robb on the same measure. Message and sex on this measure for Robb interact to produce a highly significant difference across mean scores ($F(2, 599) = 5.468$, $p \leq .025$). Results from the t-tests analysis shows a statistically significant relationship between the male and female subjects viewing the campaign advertisements ($t(206) = -3.126$, $p \leq .025$). Female subjects in this group rate Robb highest with a mean score of 2.73 while males only rate Robb at 2.38. This is also the only message format where females rate Robb higher than the male subjects.

On the feeling thermometer measurement, a statistically significant difference is observed for both Allen and Robb across sex (Tables 44 and 45). In table 44, sex alone shows up as statistically significant for Allen ($F(1, 591) = 3.021$, $p \leq .05$) as well an interaction effect between message, channel, and sex (M x C x S) that is significant ($F(2, 591) = 3.386$, $p \leq .05$).

For Robb on the feeling thermometer scale(see table 45), there is an interaction effect observed between message and sex which is highly significant ($F(2, 590) = 8.577$, $p \leq$

.001). The independent sample t-tests showed significant differences across two of the three message formats between males and females. The first is between males and females in the broadcast news story format ($t(198) = 3.127$, $p \leq .025$). Here males rate Robb 6.38 points higher than females (mean males = 63.43, mean females = 57.05). The second message significant for Robb across sex is campaign advertisements ($t(205) = -2.864$, $p \leq .025$). In this relationship it is the female group which rates Robb highest at 49.28. This represents a difference of 6.43 points from the male subjects.

As Table 46 indicates, channel and sex (C x S) interact for Allen on the combined score from the semantic differential scales. The interaction is significant at the .05 level ($F(1, 580) = 4.024$). For all males, those viewing the campaign advertisement on the (mean score = 4.76) scored Allen highest. Males in the television group rate Allen highest while females in the Internet group react more positively to Allen. The results for female subjects are similar in some respects. Those viewing the campaign advertisements rate Allen highest (mean score = 4.75). In contrast to the male subjects, however, it is the female Internet group which rates Allen highest (mean score = 4.66). When looking at the individual cell means, it is

also interesting to observe that, in the two cases where males and females rated Allen highest (i.e., television news and Internet ads), the females responded slightly more favorably to Allen with mean scores a little higher than the males.

In Table 47, results of the ANOVA analysis showed an interaction effect between message and sex (M x S) for Robb on the semantic differential score. This interaction effect is statistically significant at the .025 level ($F(2, 573) = 4.038$). Among male and female subjects, those viewing the broadcast news story rate Robb highest. Results are the same regardless of channel. However, it the relationship between males and female in the campaign advertisement group that produces the significant difference in the t-test analysis ($t(204) = -3.256$, $p \leq .001$). AS with the variable VIEWROBB and ROBBTHEM, the females viewing the campaign advertisements rate Robb highest with a mean score of 4.56. Again, as with the previous measures where this occurred, it is the only message format in which scores from females were higher than those for males. These results indicate that males' impressions of Robb varied much more depending on the message format than those impressions of Robb reported by females on the same messages.

Adult Groups

The same two way ANOVA tests were performed on each of the three variables mentioned earlier in examining gender differences: (1) overall number of correct responses (CORRECT), (2) the 5-point Likert scale for positive / negative candidate evaluation (VIEWALLEN, VIEWROBB), (3) the feeling thermometer scale rating for each candidate (ALLENTHEM, ROBBTHEM, and (4))the overall measure of candidate evaluation calculated from the combined semantic differential scales (ALLENEVAL, ROBBEVAL). Tables 48 through 54 show the results for the adult subjects in these analyses with breakdowns of mean scores for all males and females shown separately.

One of the most interesting findings in these analyses is that only one variable shows up with any differences across gender observed. On the first variable tested, overall voter learning (CORRECT), sex alone is statistically significant ($F(1, 138) = 5.183$, $p \leq .025$). For the male subjects, the highest mean scores are observed among those subjects viewing the debate segment (see Table 48) with a mean score of 7.21. This score is 1.49 points above the female subjects on the same message format. Males viewing the campaign advertisements scored lowest. By contrast, female subjects viewing the broadcast news story scored

highest in overall learning with Internet subjects again recording the highest average. The difference between the television and Internet groups viewing the news story, however, is not as great as the difference between the males discussed previously (average difference in scores for females = .46 points).

None of the other variables analyzed for differences across gender or interaction of gender with channel or message showed up as significant in the analysis. The relatively small sample size of adult subjects no doubt contributed to the lack of statistical significance in this analysis. A more detailed discussion of the implications from the analysis on gender differences is included in Chapter 6.

Chapter 6

Discussion

To facilitate a concise discussion of the findings in this study, the discussion will follow the order of the research questions presented in Chapter 2. First, I discuss findings on voter learning, followed by a discussion of findings about candidate evaluation, and finally a discussion of the results from the analysis on the measures for expressed likelihood for future information seeking behavior. The results of gender differences are then presented and discussed.

Voter Learning

Research question one asked if differences in voter learning, or issue learning, would occur across the two channels of communication being tested. Results of this study already discussed in chapter 4 indicate that the channel of communication does affect voter learning. Table 7 clearly illustrates that main effects across channel exist among the student groups ($F(1, 602) = 6.318$, $p \leq .025$). The Internet subjects score higher in each of the three message format groups. The differences in the individual

mean scores across channel range from a low of .31 in the debate segment group to a high of 1.04 within the broadcast news group. This lends support to both the first research question posed in this study and to the research of DeFleur, Davenport, Cronin, and DefLeur (1992) which found that recall from news stories presented on computers was higher than the recall of the same message when presented on television or via radio.

Of equal interest is the finding of difference across message. Even though not part of the original research questions in this study, the difference across message is highly significant ($p \leq .001$) and merits further discussion. Those viewing campaign advertisements had the highest mean scores on the issue statements while those viewing the debate segment averaged the lowest scores. The literature presented earlier in chapter 2 certainly reinforces some of the findings presented by these results. The work of Patterson and McClure (1976), Kaid (1981), and Atkin, et al. each found that voters do in fact learn substantial issue information from televised campaign advertising, and in some case they learn more from ads than from televised debates (Just, Crigler, & Wallace, 1990). The findings of these earlier studies are reinforced by the

findings in this study which indicate that message format is significant in determining voter learning.

While direct comparisons of findings between the student and adult subject groups may not be possible due to unequal sample sizes, there are differences worth noting here. The finding of differences in learning across channel observed among the student groups is not reinforced in the adult groups. The highest mean scores across all three message formats were observed among the adult Internet subjects but the differences across the means were not statistically significant. However, the finding of significance differences across message format among the student group is reinforced in the adult group. In contrast to the student groups, adult subjects showed the highest mean score among those viewing the broadcast news story (mean = 7.02). The lowest mean score is in the campaign advertisement group (mean = 5.84). This contrasts the student group where the high mean score was in the campaign advertisement group and the lowest in the debate group. This may be a result of the fact that adults tend to pay closer attention to news content than those in the age bracket of 18 - 22. For both the student and adult groups

no interaction effects between message and channel are observed so the main effects present in these analyses are valid.

The level of attention and interactivity dictated by the nature of the medium may account for the difference in learning across channels for the student groups. The works of Facorro & DeFleur (1993) and Wicks and Drew (1991) argued that viewers of television messages are not able to exercise the kind of control over the content that print readers can. Since the Internet is largely print based, this also gives the user explicit control over how quickly they go through information presented. This interactivity and user control helps substantiate the learning differences in issue recall across the two channels tested in this study.

While the differences across channel for the adult group do not show statistical significance, the mean scores were still higher among Internet subjects than those from the television group. Certainly further research will need to increase the size of the adult sample size to more accurately test these differences among age groups, but nonetheless the results presented in this study about political knowledge and issue learning are encouraging as candidates continue to make use of the Internet to communicate with voters. More importantly, these results

provide support for the first research question in this study: that the medium, or channel, of communication plays just as important a role in influencing what we take away from that interaction as the message itself plays.

Channel Differences on Candidate Evaluation

The second research question posed in this study asks "does the channel through which a message is communicated affect the evaluations of the candidates involved?" The discussion of results on this question are broken down by the three measures of candidate evaluation utilized: (1) 5-point Likert scale (positive /negative rating); (2) feeling thermometer ratings for each candidate; and (3) the combined score derived from the 12-item semantic differential scale for each candidate.

5-point Likert scale results

On the first measure of candidate evaluation, the 5-point Likert scale of overall positive / negative rating, the results for the student and adult groups are mixed. In examining the results for Allen among the student groups (see table 8), significant differences across channel are observed ($p \leq .05$). The student Internet groups rate Allen higher than those in the television groups. When results

for Robb are examined (see table 9, there is a greater level of significance across channel in this same measure ($p \leq .025$). Again students in the Internet groups consistently rate Robb highest.

The differences observed among all student groups for Allen and Robb on this measure indicate that there are "qualitative" differences in how each candidate presented himself and how those differences interacted to form these mixed results. Some of the difference may be explained by the composition of the groups by party affiliation. While balance across party affiliation was not a primary goal in forming the sample groups, both the campaign advertisement and broadcast news story groups are more heavily weighted toward Republican identifiers (the party affiliation for Allen - see Tables 1 and 2). The groups watching the debate segment, especially those in the Internet group, are more heavily weighted toward Democratic identifiers. This weighting of Democrat party affiliation may help explain why Robb, the Democratic candidate, scored the biggest difference across the two channels within the debate segment group. It should be noted again that no information on candidate political affiliation was presented to subjects prior to completing the experiment. The debate segment

makes no reference to indicate to the viewers the political affiliation of the respective candidates.

Results across message for the student groups are also mixed. There are no significant differences which emerge in the rating for Allen across message, but for Robb the differences are highly significant ($p \leq .001$). Among all student subjects, Robb scores lowest within the campaign advertisement group (mean = 2.55) and highest among those viewing the debate segment (mean = 3.28).

No significant differences in the evaluation of Robb on this measure were observed among the adult subjects across message or channel. For Allen, interaction effects were observed among adult subjects on this measure and discussed in detail in the previous chapter. Overall, the results on this measure of candidate evaluation indicate that the channel of communication does in fact have an impact. Evaluations for both candidates showed statistically significant differences across channel on this measure and both candidate scored highest across the board among Internet subjects regardless of message format. For Robb, the message format is equally as important in voters evaluation of him as a candidate.

Feeling thermometer results

On the feeling thermometer measures for each candidate, there were differences for both candidates across message and channel. Among the student groups, difference in mean scores for Allen (see table 10)across message are significant at the .025 level ($F(2, 598) = 3.605$) and for Robb (see Table 11)the differences are highly significant with $p \leq .001$ ($F(2, 597) = 43.335$). Allen's highest rating in those viewing the campaign advertisements (mean score = 58.79)while for Robb this is his lowest score (mean score = 46.09). These ratings for Robb are also similar to those discussed in the previous measure of candidate evaluation for Robb, the 5-point Likert scale. On that measure, Robb also scored lowest among those viewing the campaign advertisements.

Worth noting is the difference in content of the campaign advertising messages as a possible explanation for these differences. Allen's first ad, positive in tone, has Allen speaking and doing his own narration as scenes are mixed of him in classrooms and with parents and children. Robb's positive ad, shown directly after Allen's, similarly has scenes of Robb in the classroom, with teachers, and interacting with children but an anonymous announcer is providing the narration. Robb does not speak at all in his

advertisement. These content differences may help explain why Allen scores highest in this message format while Robb scores lowest. The work by Geiger and Reeves (1993) illustrated that "dynamic structure" in advertisements (p. 131) can aid in forming positive candidate evaluations by voters. Allen, as a candidate, comes across in a more dynamic manner and as having a more dynamic personality than Robb so the dynamic structure of his advertisements may have aided him in forming positive impressions on the subjects in the experiments.

Results among student subjects across channel are significant on the feeling thermometer scales for both candidates. For Allen (see Table 10) the difference in mean scores across channel are highly significant ($p \leq .001$) while the differences for Robb (see Table 11) across channel are significant at the .025 level. The difference for Allen between the television and Internet viewers is 5.40 points with Internet subjects rating Allen highest. Likewise, for Robb, Internet subjects rate him highest but it is only 3.20 points.

As for the adult groups, Allen's rating on the feeling thermometer scales show no main effects across channel or message among the adult subjects. Interaction effects, however, are present and are significant at the .025 level.

The high mean scores for Allen in this measure are not consistent across message or channel. For example in comparisons across message format, adult television subjects rate Allen highest in the campaign advertisement group (mean score = 59.48) and lowest among the debate segment viewers (mean score = 48.64). However, adult Internet subjects rate Allen highest in the broadcast news story group and lowest in the campaign advertisement group. This lack of consistency in high and low mean scores across channel and message help explain the interaction effects present and previously discussed in chapter 6.

For Robb, there is some statistical significance observed across message among adult subjects, but not across channel. Robb's lowest rating is observed among the campaign advertisement group (mean = 49.36). This is identical to the findings among the student and adult subjects scores on the 5-point Likert scale rating where Robb scored lowest.

These results indicate additional support for the second question that the channel of communication does in fact influence candidate evaluation among voters. However, channel alone does not account for all variations in candidate evaluation; message format in which the candidate is appearing has an equally strong impact. Evidence of this

is seen in the fact that Robb consistently performs poorly in regard to candidate evaluation among those viewing the campaign advertisements, regardless of channel.

As mentioned earlier, in examining the third and final measure of candidate evaluation, the semantic differential scales were collapsed into a single new variable for overall evaluation of Allen and Robb in order to make the results easier to examine. In Tables 12 and 13, the results of the overall evaluation for Allen and Robb respectively on the new variable of candidate evaluation produce interesting results. In each of the previous measures of candidate evaluation, 5-point Likert scale and feeling thermometer scale, there were some significant differences observed across channel for each candidate. However, on this final measure, only differences across message are noted for either candidate among the student and adult groups.

Looking at results for Allen first interaction effects were observed. As discussed in chapter 6 with results from the t-tests, among all student subjects in the television group Allen scores lowest among the debate viewers and highest among the broadcast news story viewers. To better explain these ratings a follow-up one-way ANOVA test was performed on the individual pairs of bi-polar adjectives to better gauge which characteristics were showing up at

significant levels and are presented in a summary table for easy comparison (see Tables 55 and 56). Among the television subjects viewing the broadcast news story for Allen, they rated him as more qualified, sophisticated, honest, successful, and more calm. All but one these characteristics ("calm") showed at highly significant levels ($p \leq .001$). Additionally, the initial results which showed Allen scoring lowest among television viewers of the debate segment, corresponds to his low scores seen in the follow-up one-ANOVA results on these same characteristics.

Switching to the results for Allen on overall evaluation among Internet subjects, the results differ from those previously discussed. Internet subjects scored Allen highest among those viewing the campaign advertisements and lowest viewing the debate segment. Looking again at the one-way ANOVA results to better understand the differences, Allen shows up on some of the same qualities that were observed among television subjects but also some new characteristics that were not seen in the television groups. Allen shows up as more qualified and more sophisticated which were observed earlier but among Internet subjects Allen is also seen as more attractive, friendly, sincere, active and stronger among the Internet group. These

qualities did not show significant differences among television subjects.

These results indicate that for traditional television viewers Allen performs well and comes across strong in broadcast news coverage but weak in televised campaign advertising. Yet, for those viewing the same materials via Internet, or a newer,less traditional media outlet, Allen comes across very well in his campaign advertisements. Furthermore, regardless of channel Allen does not perform well in his debate segment appearance in how voters respond to him. The high levels of interactivity required in viewing materials via the Internet may help explain why Allen's ads perform better for him among those subjects. On television, we often do not pay as close attention to campaign advertisements when they air but by viewing them on the Internet our level of focus on the content is amplified. Similarly, we typically do pay closer attention to broadcast news stories on television and therefore, this may be why Allen is more highly evaluated in this message format among television subjects.

Of additional interest for Allen are the characteristics that do not show up as significant in the television group but do emerge among Internet subjects. Allen was perceived as more attractive, friendlier, more

sincere, stronger and more active among the Internet subjects. Again the close proximity and level of interaction on the part of the subject when using this medium may explain why Allen now comes across on these more personal level qualities not previously seen among television viewers of the messages.

For the adult subjects, the results for Allen also show significant differences across message but not channel (see Table 29). Subjects viewing the campaign advertisements rate Allen highest while those viewing the debate segment rate him lowest. This is similar to the results of the student subjects. Across both groups, students and adults, Allen performs least well in the debate segment message. Again a second level of analysis was performed using one-way ANOVA to flush out specific characteristics that were significant (see Table 57) Adult television subjects found Allen calmer and perceived him as more active in the campaign advertisement group.

By contrast, adult Internet subjects viewing the broadcast news story fond Allen to be more qualified, more successful, stronger, and more active. On the quality "sophisticated", adult Internet subjects viewing the campaign advertisement rated Allen as more sophisticated. These results are an almost exact reverse of the student

groups because among *all* television subjects Allen seems to comes across better on these individual characteristics by those viewing the campaign advertisements, where as the student groups rated Allen highest in the broadcast news story group and adult Internet subjects rate Allen highest within the broadcast news story group but student Internet subjects rate Allen highest in the campaign advertisement group.

For Chuck Robb, the two-way AONVA tests showed only significant differences across message and none across channel in both the student and adult groups (see Tables 13 and 30 respectively). The results in the student group were highly significant ($p \leq .001$) and those for the adult group were significant at the .025 level.

Additional one-way ANOVA tests were again performed on the individual bi-polar adjective pairs to better flush out the characteristics showing up as significant for Robb. Among the student groups, Robb again comes across very effectively among those viewing the broadcast news story and poorly among those viewing the campaign advertisements. As presented in Table 55, television viewers in the student group evaluated Robb as more honest, sincere, believable, friendly, attractive, calm and less aggressive (listed in order of significance). With the exception of the quality

"aggressive", the high mean score for each of these characteristics was seen among the broadcast news viewers. On the quality of aggressive, Robb received the lowest mean score (i.e., less aggressive) from the news groups and the highest score (i.e., most aggressive) among those viewing the campaign advertisements.

The student Internet groups show similar results on the individual characteristics with a only couple of differences. The quality of "qualified" shows up as significant ($p \leq .025$) among Internet subjects which was not seen among television subjects. Additionally, the quality "attractive" does not show up at all among Internet subjects as it does with television subjects. The remaining qualities seen in the television groups, show up among Internet subjects and with high levels of significance.

For the student groups, these findings reinforce the earlier trends that for Robb message may seem to make more of a difference than channel. His personality comes across more effectively in some message formats than other, but little change is seen across the channel of communication. McLuhan's argument about characteristics of the communicator as it interacts with media characteristics is applicable to these results. Robb, unlike Allen, is comes across as more reserved and less charismatic than Allen making him a

"cooler" personality. These characteristics of Robb's personality may be interacting with characteristics of the message to produce these results. Since individual personality characteristics of each candidate are not broken down and tested as variables in this study, this explanation is being extrapolated from McLuhan's definitions about hot and cool media and communicator characteristics.

It is interesting to see that between the television and Internet groups a couple of individual characteristics show up differently. Specifically, television subjects of the broadcast news story rated Robb as more attractive, but this quality does not show up at all as significant among Internet subjects. The detail and quality of streaming video on the Internet may help account for this difference. Of equal interest is the difference that television subjects do not show any significant differences on the quality "qualified" but Internet subjects show a fairly significant difference on this item. Candidates may be perceived as more qualified because they are present in this new political communication form.

In looking at the results for Robb on this variable (ROBBEVAL), some very surprising results were noted (see Table 30). Again differences across message were observed with no significant differences across channel. As

previously done, a one-way ANOVA test was performed on the individual bi-polar adjective sets to see which characteristics were significant in the television and Internet groups. Here results from the adult television groups indicate that Robb's highest mean scores are among the debate viewers, with one exception. Adult subjects watching the debate segment on television score Robb as more qualified, sophisticated, honest, believable, successful, and calm (see summary in Table 57). On one characteristic, attractive, Robb is rated highest on the quality among those adults watching the broadcast news story. All of the differences in mean scores for these items were significant at the .025 level.

The really interesting finding is seen when the same one-way analysis was performed on the Internet groups. None of the individual characteristics for Robb show up with significant differences. This may suggest that adults watching these same materials on the Internet were unable to pick up on enough variations in how Robb presented himself or came across to translate into significant differences in evaluation.

Results from the three measures of candidate evaluation utilized in this study provide some valuable insight into candidate evaluation across message type and channel. The

evidence here certainly reinforces the argument that some candidates simply are more effective in certain message formats than others.

Furthermore, these findings lend support for the second research question in this study that candidate evaluation is equally influenced by the channel of communication and not only the message format. Certainly in the measures where it is single, overall measure of candidate performance and rating as with the 5-point Likert scale and feeling thermometer, differences across channel are significant. On more individualized measures of candidate evaluation, such as the 12-point semantic differential scale items, message becomes increasingly more important.

Expressed likelihood for future information seeking behavior

The impact of channel on an individuals expressed likelihood for future information seeking or likelihood for participation in campaign related activities is the third research question posed in this study. Like previous results on the impact of channel on candidate evaluation, the results here are varied both within each sample group and across the two groups included in the study. For purposes of discussion, the 10 statements on future information seeking and participation in campaign related

activities are broken down into two categories: those which deal more specifically with expressed likelihood to seek out information only and secondly, those which focus more on participation in campaign related activities. Those statements focusing on the former category are presented first and included statements one, two, five, seven and nine. Discussion of those statements related more to participation in campaign activities, including statements three, four, six, eight, & ten, is presented last.

Statements one and two asked about the likelihood for watching for more campaign advertisements on television or watching for more news about the candidates or issues respectively. Among the student subjects, results on these two statements produce highly significant differences across channel ($p \leq .001$), but also had high interaction effects present which takes precedence over the main effects (see Tables 14 and 15). For the adult groups, only interaction effects were observed (see Tables 31 and 32). In spite of the interaction effects observed here, an examination of the mean scores lend some support to the literature discussed earlier by Althaus and Tewksbury (2000) who argue that the Internet is not going to change drastically the way voters gather political information, but rather reinforce old habits. For example, one statement one ("watch the

television for more advertisements by the candidates") mean scores in both sample groups for those viewing the campaign advertisements are highest among the television subjects. Similarly, the mean scores among those watching the broadcast news story are highest in those viewing it on the Internet.

The next statement that focuses on explicitly on likelihood for future information seeking behavior is statement five: "read news articles about the election". On this statement, significant differences are observed across message and channel for the student groups, but no significant differences are observed in the adult groups (see Tables 18 and 35). Among students, message is significant at the .025 level while channel was even more highly significant at the .001 level. Across the board in all message formats, Internet subjects indicated a greater likelihood for engaging in this information seeking behavior. Across message format, those students in the broadcast news story group averaged the highest mean score (3.75). This reinforces the argument by Sullivan (1995) that the Internet may indeed help create a better democracy with those voters that are better informed about the issues and candidates in a campaign. Since print newspaper was not one of the channels tested in this study, it is interesting

that those in the Internet group show the highest mean score toward this activity since many people today are using the Internet for news gathering purposes while local and network television news viewing has been declining (Stempel, Hargrove, & Bernt, 2000).

Unlike the previous statements related to future information seeking which asked about the likelihood for utilizing traditional media in gathering information, statement 7 switches direction and asks about likelihood for using the Internet to find out more information about the election in general. For the student and adult groups, there are significant relationships observed across message and channel. In both groups, the Internet subjects record the highest mean scores across all three message formats. Again, there is evidence that the Internet helps generate interest in seeking out additional information about elections. In both the student and adult groups, students viewing the broadcast news message showed the greatest likelihood for this behavior. However, it is interesting in looking at the differences that emerge in the individual cells which show the results between the three message formats for adults. Among adult television viewers, those watching the broadcast news story scored highest on this statement but among the adult Internet subjects, the group

watching the campaign advertisements scored highest. In fact, among all groups in each message format and channel, those adults watching the campaign advertisements via the Internet averaged the highest mean score of all cells (mean score = 3.44). Adults, as opposed the younger student group, tend to be more active in their attention to and participation in politics and this may help explain the high score among adults on this statement.

Statement 9 is the last one that focuses more specifically on likelihood for information seeking behavior. Like statement 7, it also focuses in the likelihood to use the Internet. This statement also presents some of the most interesting findings of all statements discussed so far. The reason being because the results for the student and adult groups are so different. Results among students, responses to "likelihood to use the Internet to find out information about a specific political issue", show significant differences across channel ($p \leq .025$) with the highest mean scores observed in the television group. Regardless of message, the student television subjects indicated the greatest likelihood for engaging in this behavior. However, for adults channel is also significant ($p \leq .025$) but it is the Internet group which shows the highest mean scores across all three message formats.

In looking at those statements which deal more specifically with expressed likelihood to engage in campaign related activities, statements three and 10 deal more exclusively with Internet related activities and statements four, six, and eight are more "traditional" campaign related activities. Statement three asks about the likelihood to "participate in an electronic or on-line chat or discussion about the candidates or issues". For the student group, message and channel are significant on this statement (see Table 16) where for adults only message is significant (see Table 33).

In the student group, mean scores range from a low of 1.77 among those viewing the campaign advertisements to a high of 2.08 among those viewing the broadcast news story. Also, as seen with many of the previous statements already discussed, those students in the Internet group averaged the highest mean scores across all three message formats. Similarly, adult subjects show the highest mean score among those viewing the broadcast news story. Since this statement reflects the likelihood for using the Internet to engage in this activity, it is not surprising that the Internet cells of students and adults would record the highest scores. This falls in line with the argument by Althaus and Tewksbury (2000) that existing media usage

habits may be reinforced while also reinforcing Keane's argument (1995) that the Internet may help in bringing together groups of individual's with similar interests.

Statement 10 asks about the likelihood for using the Internet to visit a candidates website. For the student groups, like was observed in statement 3, there is a significant effect for message and channel (see Table 23). The main significant effect for the adult groups is observed across channel (see Table 40). Among students and adults, the highest mean scores across all three message formats are observed among Internet subjects. For the student group, those viewing the broadcast news story have the overall highest mean score. By contrast, adult subjects viewing the campaign advertisements averaged the highest mean score across all cells. The best explanation for this is that since these campaign advertisements give limited policy references for the candidates on the issue of education, those adults seeking additional information on this issue find the Internet an appropriate source to look for specific issue information from a candidate. This finding also helps reinforce the ability of campaign advertisements to provide issue information for voters (Patterson & McClure, 1976; Kaid, 1981).

On statement four subjects were asked about their likelihood to talk with friends about the candidates or issues. For the student groups, channel was highly significant on this statement ($p \leq .001$). Those students in the Internet group scored highest regardless of message format.

For the adult subjects, message was statistically significant on this statement ($p \leq .05$). There is a .55 difference between the lowest (debate segment) and highest (campaign advertisements) mean scores among adult subjects.

On statement 6, "likelihood of contacting a candidate's campaign for more information", the student groups showed significance across message while the adult groups showed significance across message and high statistical significance across channel ($p \leq .001$). Table 6 shows very little fluctuation between high and low mean scores across message for students. Difference between the highest and lowest mean scores is only .11 points. Those students viewing the broadcast news story recorded the highest overall mean score with mean score among the viewers of the broadcast news story being the lowest (1.77).

Adult subjects averaged a difference of .72 points between high (news and campaign ads) and low (debate) mean scores. Across channel, those adult subjects in the

Internet group score highest. It is interesting to observe that scores on this statement are, on average, the lowest scores of any statement tested in this study regardless of channel or message. For most voters to get involved in politics or take and active interest, the candidates and issues need to be relevant to the voter. The fact that these candidate's are from a Senate election in Virginia may have influenced a subjects willingness to express likelihood for seeking out information from a candidate's campaign since this election would hold no relevance for voters in Oklahoma.

The final statement dealing with participation in a campaign related activity is statement 8: "vote in the next election". Analysis of the mean scores for the student and adult groups on this statement produced some of the most surprising results. Both the student and adult groups showed no significant differences across message or channel on this statement. Additionally, this statement revealed some of the highest mean scores of any previous statement. For example, the adult subjects viewing the broadcast news story averaged 4.56 on this statement out of a possible 5-point scale. Students viewing the same message averaged 4.21 out of a possible five points.

Results from these statements on expressed likelihood to seek out additional information or participate in some type of campaign related activity suggest that the Internet does in fact generate an interest in engaging in those behaviors. With few exceptions already noted in this discussion, the Internet subjects for both students and adults averaged the highest mean scores on each of these statements. Just as channel seems to have impacted an individual's likelihood to engage in these activities, message seems to have played an equally important role.

One of the most interesting commonalities observed in the data on this variable is that among all student subjects, television and Internet, those viewing the broadcast news story via the Internet recorded the highest mean score across all ten statements without exception. This helps reinforce the trends reported by Stempel, Hargrove, and Bernt (2000) that use of the Internet for news purposes is growing while other, more traditional sources of news, are declining. Voters seeking out political news and campaign updates via the Internet may be inclined to continue using the Internet as they seek to uncover other political information.

Overall, the discussion presented here indicates that channel does in fact affect voter learning and candidates

evaluation (see Table 58). Additionally, we cannot ignore that the type of political message someone views may also be a factor in what voters learn and the impressions voters form about candidates. It is evident that these results answer some questions about the role of the channel in the communication process while simultaneously generating future research questions which warrant further attention by researchers. The influences of gender on learning and candidate evaluation as it relates to channel differences are discussed next with comparisons across student and adult subjects presented.

Gender and voter learning

The fourth research question presented in this study asks if differences in voter learning across the two channels of communication differ by gender. The analysis on the influence of gender on voter learning utilized the same two-way ANOVA analysis previously applied to voter learning but included gender as a third fixed factor in the analysis. Since the results for message and channel differences in these results are similar to those already discussed, this discussion focuses solely on the influence of gender as it relates to differences across channel and voter learning.

Student groups showed no differences across sex in voter learning (see table 41). Additionally, there were no interaction between sex and message (M x S) or channel and sex ☺ x S) among all student groups. However, among the adult groups sex is significant in voter learning. This is not an interaction of sex across channel or message but a difference across between males and females overall. One of the reasons this finding stands out is because the difference is significant within a sample population that is one-fourth that of the larger student sample. These findings may be best explained by not only gender differences but generational differences. That is, the older, adult sample represents a segment of the population that is more atoned to politics and more involved, therefore the fluctuations by gender are a better gauge than those results from the larger student sample since their age bracket is typically not as active in politics.

It is also interesting to observe that, with the exception of the female Internet group watching the debate segment, the highest mean scores across all message formats are observed in the Internet group for both men and women (see Table 48). Additionally, the female Internet group watching the broadcast news story score a slightly higher average of correct responses than the male Internet group

viewing the same materials. While not statistically significant in this study, these minor differences are interesting differences across gender and channel that merit further consideration by future research and worth noting here.

Gender and Differences in Candidate Evaluation

In examining the results for gender and candidate evaluation, the discussion focuses solely on the student group. The adult sample showed no statistically significant differences by sex alone (S) or interactions of message and sex (M x S) or channel and sex ☺ x S) for any of the three measures of candidate evaluation utilized in this study. Among the student groups, the results are mixed on the influence of sex on candidate evaluation.

On the first measure of candidate evaluation, the 5-point Likert scale, results showed differences for Robb but not for Allen. For Robb, there is an interaction effect present between message and sex (M x S) which is significant at the .025 level. This finding reinforces earlier results of message and channel influences for Robb where message format was highly significant. The male and female student, Internet groups rate Robb highest on this measure across all three message formats with one exception; the female,

television group viewing the broadcast news segment scored Robb higher than the female, Internet group (see Table 43). The differences in mean scores across each message format for males are greater than the differences for female subjects. Males average a difference of .24 points across the three message format while the average difference for females is only .14 points. While reinforcing the significance of message format for Robb, these results also indicate that males were influenced more heavily by certain content elements of the message than the female subjects. These content variables might include the overall presentation of the candidate's personality, whether or not the candidate is speaking, etc. Future research that compares channel differences will need to isolate specific content variables to better understand the influences of content across gender as voters evaluate candidates.

In Table 44, results for Allen on the feeling thermometer scale show that sex overall is a factor in how subjects responded to the candidate. Among male subjects, Allen is more highly rated among those viewing the campaign advertisements and broadcast news story on the Internet and by those viewing the debate segment on television. Internet female subjects, however, rated Allen higher across all three message formats. Overall, mean scores for males are

higher than those for females, indicating that males respond more favorably to the candidates than females. For Robb, sex is also significant on the feeling thermometer measure but only as an interaction with message (M x S). This interaction is highly significant for Robb ($p \leq .001$). Once again message is seen as the deciding factor for how voters react to Robb as a candidate.

On the final measure of candidate evaluation, the semantic differential scale scores, there is an interaction between channel and sex for Allen (C x S) and a interaction between message and sex (M x S) for Robb (see Table 47 and 48). These results follow the previous patterns of channel being important for Allen, but message is more important for Robb.

Overall, there is some support offered by these findings for gender influences in how voters react to candidates. Often times, however, it is an interaction of message and sex or channel and sex that causes those differences to emerge. Furthermore, the characteristics of the individual candidate have an impact in determining which interaction effect will be more significant. In this study, Allen's evaluations are more affected by sex alone or interactions of channel and sex. For Robb, his evaluations by men and women are more heavily influenced by message than

by channel. Repeated tests of these measures with other candidates may be the only way to establish a true pattern of how men and women react to candidates when presented in different channels of communication within a given message format.

The results about the impact of gender across channels of communication on voter learning and candidate evaluation are as mixed as results presented earlier in this chapter that focus only on the comparisons across student and adult subjects.

This study is one of the first to try and make comparisons of multiple message formats across multiple channels of communication on the variables being tested in this study. As such, what it offers in explanation about these influences, it also helps to identify the areas that need further investigation. Just as researchers will rely on time to best assess the impact of the Internet on the political process, only repeat tests of other candidates and other messages in the manner done here will help to establish patterns of significance. Conclusions of this study and its major findings, along with a discussion of the limitations of this research are presented in Chapter 7. Chapter 7 also discusses the implications for future research in this area of political communication.

Chapter 7

Conclusions, Limitations, & Future Research

Results and discussion from this study have generated a renewed belief that the channel of communication is in an important part of the communication process. Furthermore, this study helps solidify findings of earlier research on channel differences by showing the characteristics inherent to each media play a role in the ultimate effect of a political message for the user of that medium. As to voter learning, the channel through which a message is sent does have an impact on issue recall. Scores among Internet subjects across all message formats were higher than those in those in the television group. Additionally, broadcast news stories performed extremely well in regards to voter learning, especially when those stories were viewed via the Internet. This finding reinforces McLuhan's argument that each message and channel interact with one another to produce varying effects for the user.

Political messages viewed via the television and Internet were also proven to result in differing effects for candidate evaluation. The findings in this study indicate that some candidates do in fact perform better in some media over others and that candidate qualities interact with those

characteristics of message and channel to produce different effects. Robb, for example, performs poorly on all three measures of candidate evaluation in the campaign advertisements messages regardless of channel. Similarly, Allen is most negatively evaluated in the debate segment message across all three measures of candidate evaluation and both channels. McLuhan's explanation of hot and cool personalities of the communicator as a factor that interacts with media characteristics seems the most appropriate explanation for these findings. The prior research presented in Chapter 2 supports the finding of differences in candidate evaluation across message format. There is now added data to be considered this collection of research to indicate that the channel of exposure to a political message also affects candidate evaluation.

As for the impact of channel on future information seeking behavior, the findings of this study lend support to the argument that the Internet may in fact help generate interest in the political process and political campaigns. Time and future elections will be the best test of this hypothesis but the indications from this study are positive. On the whole, this study has shown that channel does have an impact on voter learning, candidate evaluation and likelihood for seeking future information. This research

does not, however, minimize the impact shown by message format on impacting these same variables. What is does is help to reinforce the comments of McLuhan (1965) and Dommermuth (1974) that to study or generalize about the effects of a message or a medium in isolation of one another is meaningless.

The implications of the research are two-fold: those relating to academic research and those implications in a practical, campaign related context. For academic researchers of media and media effects, this study raises the importance of research questions which ask about the influence of channel on the communication. Equally important is the finding while channel can be seen as a significant part of the communication process it cannot be studied in isolation. Future research will need to continue testing these differences in channel while also balancing it with message and content considerations. For candidates and political campaigns, the findings of this study offer valuable insight into strategic considerations of media choice and the messages candidates utilize during a campaign. If specific qualities of a candidates personality can be identified and paired with those media and message formats that accentuate the candidate, then the resulting impression from that message will be stronger. One goal of

future research would be to identify those specific elements of a candidate's personality which will be best reflected by the media channel and message being used.

Limitations

While support is offered for the importance of channel in the communication process by this study, there are a couple of limitations, which once addressed by other research, will help make the results even stronger. The limitations of this research are of two dimensions: 1) limitations in the sample population used for the study as it affects generalizability and 2) limitations in the channels tested.

For the first limitation, the sample population, there are two areas that need to be addressed. The first being the sample sizes of the students and adults in this study. The student sample was comprised of 608 total subjects while the adult sample included only 150 subjects. The large difference in sample size makes it impossible to draw direct comparisons between the two groups. Time constraints and the difficulty in recruiting adult participants made it impossible to solicit enough adult subjects to make the groups equal. The second limitation of this study in regards to the sample is the dependence on a student population for the student cells. These subjects do not

necessarily reflect that voting population but dependence on these types of groups has become and expected norm of academic research. Additionally, the age range of the student population represents a segment of the voting population that already does not usually participate in the political process and has shown minimal voter turnout.

The second dimension discussed here as to limitations in this study deals with the channels tested. Television has clearly established itself a mainstream, traditional source of political information for voters. The Internet really took hold in the 2000 elections as a source of political information for voters and is only in its infantcy in the political landscape. While this study does effectively compare the message formats tested in these two mediums, future tests of channel differences as it relates to voter learning should include newspapers since it is still a viable source of political news and is often times used in conjunction with these other two media.

Future Research

There are two main areas that future research will need to concentrate efforts to better understand the impact of channel on how individuals process and are affected by message they receive. The first of these areas is simply

repeated tests of multiple channels of communication that attempt to hold the message content constant. By including other media channels, like newspaper and radio, not tested in this study we can begin to form a more comprehensive picture about the characteristics of each individual medium and how those characteristics contribute to the effect of the message on the user. In a political communication context, researchers need to continue testing campaign related messages across multiple channels to assess the impact on voters.

The second area of research focus should be on more accurately identifying specific aspects of a candidates personality which can then be compared to message and channel characteristics. As McLuhan argues, if the characteristics of the communicator are accurately matched with like characteristics of a medium then the resulting impression is more successful. In conclusion, this study has helped illustrate that together the medium (and the communicator) become the message.

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TABLE 1
Demographic Characteristics for the Political Advertisement Groups - Students

Demographics	Television (n=105)	Internet (n=106)	Total (n=211)
Gender			
Male	52 (49.5%)	53 (50.0%)	105 (49.8%)
Female	53 (50.5%)	53 (50.0%)	106 (50.2%)
Race			
White	89 (84.8%)	79 (74.5%)	168 (79.6%)
African American	3 (2.9%)	9 (8.5%)	12 (5.7%)
Asian/Pacific Islander	4 (3.8%)	4 (3.8%)	8 (3.8)
Native American	1 (1.0%)	7 (6.6%)	8 (3.8%)
Spanish / Hispanic	1 (1.0%)	4 (3.8%)	5 (2.4%)
Multi-racial/Mixed race	2 (1.9%)	3 (2.8%)	5 (2.4%)
Other	5 (4.8%)		5 (2.4%)
Political Affiliation			
Democrat	31 (29.5%)	37 (34.9%)	68 (32.2%)
Republican	54 (51.4%)	51 (48.1%)	105 (49.8%)
Independent	16 (15.2%)	13 (12.3%)	29 (13.7%)
Other	4 (3.8%)	5 (4.7%)	9 (4.3%)

TABLE 2
Demographic Characteristics for the Broadcast News Groups - Students

Demographics	Television (n=100)	Internet (n=100)	Total (n=200)
Gender			
Male	50 (50.0%)	49 (49.0%)	99 (49.5%)
Female	50 (50.0%)	51 (51.0%)	101 (50.5%)
Race			
White	84 (84.0%)	83 (83.0%)	167
African American	8 (8.0%)	5 (5.0%)	13
Asian/Pacific Islander	5 (5.0%)	3 (3.0%)	8
Native American	3 (3.0%)	4 (4.0%)	7
Spanish / Hispanic	0	4 (4.0%)	4
Multi-racial/Mixed race	0	1 (1.0%)	1
Other	0	0	0
Political Affiliation			
Democrat	32 (49.2%)	33 (50.8%)	65
Republican	51 (53.1%)	45 (46.9%)	96
Independent	13 (40.6%)	19 (59.4%)	32
Other	4 (57.1%)	3 (42.9%)	7

TABLE 3
Demographic Characteristics for the Political Debate Groups - Students

Demographics	Television (n=98)	Internet (n=99)	Total (n=197)
Gender			
Male	50 (51.0%)	48 (49.0%)	98
Female	49 (50.0%)	50 (50.0%)	99
Race			
White	73 (58.4%)	52 (41.6%)	125
African American	9 (75.0%)	3 (25.0%)	12
Asian/Pacific Islander	6 (25.0%)	18 (75.0%)	24
Native American	4 (40.0%)	6 (60.0%)	10
Spanish / Hispanic	5 (45.6%)	6 (54.4%)	11
Multi-racial/Mixed race	0	5 (100.0%)	5
Other	2 (20.0%)	8 (80.0%)	10
Political Affiliation			
Democrat	37 (43.5%)	48 (56.5%)	85
Republican	46 (56.8%)	35 (43.2%)	81
Independent	14 (56.0%)	11 (44.0%)	25
Other	1 (20.0%)	4 (80.0%)	5

TABLE 4
Demographic Characteristics for the Political Advertisement Groups - Adults

Demographics	Television (n=25)	Internet (n=25)	Total (n=50)
Gender			
Male	13 (52.0%)	13 (52.0%)	26 (52.0%)
Female	12 (48.0%)	12 (48.0%)	24 (48.0%)
Age			
18 - 24	4 (16.0%)	1 (4.0%)	5 (10.0%)
25 - 34	9 (36.0%)	9 (36.0%)	18 (36.0%)
35 - 44	6 (24.0%)	7 (28.0%)	13 (26.0%)
45 - 54	4 (16.0%)	6 (24.0%)	10 (20.0%)
55 - 64	1 (4.0%)	2 (8.0%)	3 (6.0%)
Over 65	1 (4.0%)		1 (2.0%)
Race			
White	19 (76.0%)	16 (64.0%)	35 (70.0%)
African American	5 (20.0%)	1 (4.0%)	6 (12.0%)
Asian /Pacific Islander		2 (8.0%)	2 (4.0%)
Native American		4 (16.0%)	4 (8.0%)
Spanish/Hispanic	1 (4.0%)	1 (4.0%)	2 (4.0%)
Multi-racial/ Mixed race		1 (4.0%)	1 (2.0%)
Other			
Political Affiliation			
Democrat	14 (56.0%)	8 (32.0%)	22 (44.0%)
Republican	8 (32.0%)	14 (56.0%)	22 (44.0%)
Independent	2 (8.0%)	3 (12.0%)	5 (10.0%)
Other	1 (4.0%)		1 (2.0%)

TABLE 5
Demographic Characteristics for the Broadcast News Groups - Adults

Demographics	Television (n=25)	Internet (n=25)	Total (n=50)
Gender			
Male	12 (48.0%)	12 (48.0%)	24 (48.0%)
Female	13 (52.0%)	13 (52.0%)	26 (52.0%)
Age			
18 - 24		2 (8.0%)	2 (4.0%)
25 - 34	7 (28.0%)	9 (36.0%)	16 (32.0%)
35 - 44	9 (36.0%)	5 (20.0%)	14 (28.0%)
45 - 54	6 (24.0%)	7 (28.0%)	13 (26.0%)
55 - 64	1 (4.0%)	2 (8.0%)	3 (6.0%)
Over 65	2 (8.0%)		2 (4.0%)
Race			
White	21 (84.0%)	22 (88.0%)	43 (86.0%)
African American	3 (12.0%)	1 (4.0%)	4 (8.0%)
Asian /Pacific Islander		2 (8.0%)	2 (4.0%)
Native American			
Spanish / Hispanic	1 (4.0%)		1 (2.0%)
Multi-racial/Mixed race			
Other			
Political Affiliation			
Democrat	9 (36.0%)	8 (32.0%)	17 (34.0%)
Republican	14 (56.0%)	15 (60.0%)	29 (58.0%)
Independent	2 (8.0%)	1 (4.0%)	3 (6.0%)
Other			1 (2.0%)

TABLE 6
Demographic Characteristics for the Political Debate Groups - Adults

Demographics	Television (n=25)	Internet (n=25)	Total (n=50)
Gender			
Male	12 (48.0%)	12 (48.0%)	24 (48.0%)
Female	13 (52.0%)	13 (52.0%)	26 (52.0%)
Age			
18 - 24		4 (16.0%)	4 (8.0%)
25 - 34	10 (40.0%)	6 (24.0%)	16 (32.0%)
35 - 44	6 (24.0%)	8 (32.0%)	14 (28.0%)
45 - 54	4 (16.0%)	3 (12.0%)	7 (14.0%)
55 - 64	4 (16.0%)	3 (12.0%)	7 (14.0%)
Over 65	1 (4.0%)	1 (4.0%)	2 (4.0%)
Race			
White	18 (72.0%)	9 (36.0%)	27 (54.0%)
African American	2 (8.0%)	1 (4.0%)	3 (6.0%)
Asian /Pacific Islander		6 (24.0%)	6 (12.0%)
Native American	2 (8.0%)	1 (4.0%)	3 (6.0%)
Spanish / Hispanic	3 (12.0%)	3 (12.0%)	6 (12.0%)
Multi-racial/Mixed race		3 (12.0%)	3 (6.0%)
Other		2 (8.0%)	2 (4.0%)
Political Affiliation			
Democrat	11 (44.0%)	12 (48.0%)	23 (46.0%)
Republican	12 (48.0%)	9 (36.0%)	21 (42.0%)
Independent	2 (8.0%)	3 (12.0%)	5 (10.0%)
Other		1 (4.0%)	1 (2.0%)

Table 7
Two way Analysis of Variance for total number of correct responses on learning statements (CORRECT)

Between subjects	df	F
Message (M)	2	7.551***
Channel (C)	1	6.318**
M x C	2	.829
s within group		
error	602	(7.468)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)**	
Television	5.87
Internet	6.43

Main Effects across Message (cumulative mean scores)***	
Campaign Ads	6.61
Broadcast News	6.24
Debate	5.57

Between group comparison: (Ads*Debate)*** and (News*Debate)*

	Mean Scores		
	Campaign Ads	Broadcast News	Debate
Television	6.41	5.76	5.41
Internet	6.81	6.72	5.72

* p ≤ .05 ** p ≤ .025 *** p ≤ .001

Table 8
Two way Analysis of Variance for overall view of George Allen (VIEWALLE)

Between subjects	df	F
Message (M)	2	.005
Channel (C)	1	4.280*
M x C	2	1.070
s within group		
error	598	(1.470)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)*	
Television	3.08
Internet	3.26
Main Effects across Message (cumulative mean scores)	
Campaign Ads	3.16
Broadcast News	3.18
Debate	3.17

	Mean Scores		
	Campaign Ads	Broadcast News	Debate
Television	2.99	3.11	3.12
Internet	3.34	3.24	3.20

* $p \leq .05$ ** $p \leq .025$ *** $p \leq .001$

Table 9
Two way Analysis of Variance for overall view of Chuck Robb (VIEWROBB)

Between subjects	df	F
Message (M)	2	39.114 ***
Channel (C)	1	4.965 **
M x C	2	1.015
s within group		
error	599	(15.274)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)**

Television	2.94
Internet	3.11

Main Effects across Message (cumulative mean scores)***

Campaign Ads	2.55
Broadcast News	3.26
Debate	3.28

Between group comparison: (News*Ads)***;(Ads*Debate)***

	Mean Scores		
	Campaign Ads	Broadcast News	Debate
Television	2.50	3.21	3.12
Internet	2.60	3.30	3.45

* p ≤ .05 ** p ≤ .025 *** p ≤ .001

Table 10
Two way Analysis of Variance for ratings of George Allen on the feeling thermometer scales (ALENTHEM)

Between subjects	df	F
Message (M)	2	3.605 **
Channel (C)	1	11.554 ***
M x C	2	1.740
s within group		
error	598	(371.35)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)***	
Television	53.30
Internet	58.70
Main Effects across Message (cumulative mean scores)**	
Campaign Ads	58.79
Broadcast News	55.08
Debate	53.93

Between group comparison: (News*Ads)*;(Ads*Debate)**

	Mean Scores		
	Campaign Ads	Broadcast News	Debate
Television	54.17	53.00	52.69
Internet	63.50	57.16	55.19

* $p \leq .05$ ** $p \leq .025$ *** $p \leq .001$

Table 11
Two way Analysis of Variance for ratings of Chuck Robb on the feeling thermometer scales (ROBBTHEM)

Between subjects	df	F
Message (M)	2	43.335 ***
Channel (C)	1	5.579 **
M x C	2	1.432
s within group		
error	597	(274.45)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)**	
Television	53.11
Internet	56.31
Main Effects across Message (cumulative mean scores)*	
Campaign Ads	46.09
Broadcast News	60.23
Debate	58.14

Between group comparison: (Ads*Debate)***

	Mean Scores		
	Campaign Ads	Broadcast News	Debate
Television	46.09	57.65	55.96
Internet	46.10	62.80	60.36

* p ≤ .05 ** p ≤ .025 *** p ≤ .001

Table 12
Two way Analysis of Variance for overall candidate rating from the semantic differential scales for George Allen (ALLENEVAL)

Between subjects	df	F
Message (M)	2	15.744 ***
Channel (C)	1	.087
M x C	2	3.281 *
s within group		
error	587	(.533)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)	
Television	4.60
Internet	4.62
Main Effects across Message (cumulative mean scores)***	
Campaign Ads	4.75
Broadcast News	4.71
Debate	4.37

Between group comparison: (Ads*Debate)***; (News*Debate)***

	Mean Scores		
	Campaign Ads	Broadcast News	Debate
Television	4.64	4.77	4.39
Internet	4.87	4.64	4.34

* p ≤ .05 ** p ≤ .025 *** p ≤ .001

Table 13
Two way Analysis of Variance for overall candidate rating from the semantic differential scales for Chuck Robb (ROBBEVAL)

Between subjects	df	F
Message (M)	2	19.491 ***
Channel (C)	1	.041
M x C	2	.034
s within group		
error	580	(.587)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)	
Television	4.63
Internet	4.64
Main Effects across Message (cumulative mean scores)***	
Campaign Ads	4.38
Broadcast News	4.85
Debate	4.70

Between group comparison: (News*Ads)***; (Ads*Debate)***

	Mean Scores		
	Campaign Ads	Broadcast News	Debate
Television	4.37	4.86	4.69
Internet	4.39	4.85	4.71

* p ≤ .05 ** p ≤ .025 *** p ≤ .001

Table 14
Two way Analysis of Variance for Item 1 of the expressed likelihood for future information seeking and behavior statements ("Watch for more ads about the candidates and issues on television")

Between subjects	df	F
Message (M)	2	2.309
Channel (C)	1	29.533 ***
M x C	2	22.993 ***
s within group		
error		
Main Effects across Channel (cumulative mean scores)***		
Television	2.75	
Internet	3.25	
Main Effects across Message (cumulative mean scores)		
Campaign Ads	2.98	
Broadcast News	3.14	
Debate	2.89	

	Mean Scores		
	Campaign Ads	Broadcast News	Debate
Television	3.17	2.65	2.41
Internet	2.78	3.65	3.38

Note: Value enclosed in parentheses represents mean square error.

* p ≤ .05 ** p ≤ .025 *** p ≤ .001

Table 15
Two way Analysis of Variance for Item 2 of the expressed likelihood for future information seeking and behavior statements ("Watch the news for more information about the candidates/issues")

Between subjects	df	F
Message (M)	2	1.760
Channel (C)	1	22.066 ***
M x C	2	17.785 ***
s within group		
error	594	(1.400)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)

Television	3.05
Internet	3.48

Main Effects across Message (cumulative mean scores)***

Campaign Ads	3.16
Broadcast News	3.36
Debate	3.27

Between group comparison: (News*Ads)**; (Ads*Debate)**

	Mean Scores		
	Campaign Ads	Broadcast News	Debate
Television	3.32	2.88	2.93
Internet	2.99	3.87	3.63

* $p \leq .05$ ** $p \leq .025$ *** $p \leq .001$

Table 16
Two way Analysis of Variance for Item 3 of the expressed likelihood for future information seeking and behavior statements ("Participate in an electronic or on-line chat or discussion about the candidates or issues")

Between subjects	df	F
Message (M)	2	5.263 **
Channel (C)	1	14.300 ***
M x C	2	2.615
s within group		
error	594	(1.207)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)***

Television	1.71
Internet	2.04

Main Effects across Message (cumulative mean scores)**

Campaign Ads	1.77
Broadcast News	2.08
Debate	1.78

Between group comparison: (News*Ads)**; (News*Debate)**

	Mean Scores		
	Campaign Ads	Broadcast News	Debate
Television	1.73	1.89	1.51
Internet	1.80	2.28	2.06

* $p \leq .05$ ** $p \leq .025$ *** $p \leq .001$

Table 17

Two way Analysis of Variance for Item 4 of the expressed likelihood for future information seeking and behavior statements ("Talk with friends about the candidates/issues")

Between subjects	df	F
Message (M)	2	1.522
Channel (C)	1	15.635 ***
M x C	2	1.630
s within group		
error	594	(1.622)

Main Effects across Channel (cumulative mean scores)***	
Television	3.31
Internet	3.71

Main Effects across Message (cumulative mean scores)	
Campaign Ads	3.39
Broadcast News	3.59
Debate	3.55

	Mean Scores		
	Campaign Ads	Broadcast News	Debate
Television	3.31	3.31	3.30
Internet	3.47	3.89	3.81

Note: Value enclosed in parentheses represents mean square error.

* p ≤ .05 ** p ≤ .025 *** p ≤ .001

Table 18
Two way Analysis of Variance for Item 5 of the expressed likelihood for future information seeking and behavior statements ("Read newspaper articles about the election")

Between subjects	df	F
Message (M)	2	6.279 **
Channel (C)	1	13.640 ***
M x C	2	1.614
s within group		
error	597	(1.500)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)***	
Television	3.33
Internet	3.69
Main Effects across Message (cumulative mean scores)**	
Campaign Ads	3.33
Broadcast News	3.75
Debate	3.46

Between group comparison: (News*Ads)***; (News*Debate)**

	Mean Scores		
	Campaign Ads	Broadcast News	Debate
Television	3.27	3.49	3.23
Internet	3.39	4.01	3.70

* $p \leq .05$ ** $p \leq .025$ *** $p \leq .001$

Table 19
Two way Analysis of Variance for Item 6 of the expressed likelihood for future information seeking and behavior statements ("Contact candidate's campaign for more information")

Between subjects	df	F
Message (M)	2	4.812 **
Channel (C)	1	1.347
M x C	2	.530
s within group		
error	596	(1.246)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)	
Television	2.02
Internet	1.79

Main Effects across Message (cumulative mean scores)**	
Campaign Ads	1.88
Broadcast News	1.77
Debate	1.82

Between group comparison: (News*Ads)*; (News*Debate)**

	Mean Scores		
	Campaign Ads	Broadcast News	Debate
Television	1.78	1.98	1.56
Internet	1.79	2.05	1.79

* $p \leq .05$ ** $p \leq .025$ *** $p \leq .001$

Table 20
Two way Analysis of Variance for Item 7 of the expressed likelihood for future information seeking and behavior statements (Use the Internet to find out more information about the election in general")

Between subjects	df	F
Message (M)	2	5.483 **
Channel (C)	1	5.663 **
M x C	2	.934
s within group		
error	596	(2.036)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)**	
Television	2.58
Internet	2.85

Main Effects across Message (cumulative mean scores)**	
Campaign Ads	2.49
Broadcast News	2.96
Debate	2.71

Between group comparison: (News*Ads)***

	Mean Scores		
	Campaign Ads	Broadcast News	Debate
Television	2.41	2.88	2.46
Internet	2.58	3.04	2.97

* p ≤ .05 ** p ≤ .025 *** p ≤ .001

Table 21
Two way Analysis of Variance for Item 8 of the expressed likelihood for future information seeking and behavior statements ("Vote in the next election")

Between subjects	df	F
Message (M)	2	1.857
Channel (C)	1	1.021
M x C	2	1.031
s within group		
error	596	(1.554)
Main Effects across Channel (cumulative mean scores)		
Television	4.02	
Internet	4.13	
Main Effects across Message (cumulative mean scores)		
Campaign Ads	4.00	
Broadcast News	4.21	
Debate	4.01	

	Mean Scores		
	Campaign Ads	Broadcast News	Debate
Television	3.92	4.08	4.07
Internet	4.08	4.35	3.95

Note: Value enclosed in parentheses represents mean square error.

* $p \leq .05$ ** $p \leq .025$ *** $p \leq .001$

Table 22
Two way Analysis of Variance for Item 9 of the expressed likelihood for future information seeking and behavior statements ("Use the Internet to find out more information about a specific political issue")

Between subjects	df	F
Message (M)	2	2.285
Channel (C)	1	7.430 **
M x C	2	.631
s within group		
error	593	(1.911)

Main Effects across Channel (cumulative mean scores)**	
Television	2.87
Internet	3.18
Main Effects across Message (cumulative mean scores)	
Campaign Ads	2.91
Broadcast News	3.19
Debate	2.96

	Mean Scores		
	Campaign Ads	Broadcast News	Debate
Television	2.68	3.11	2.82
Internet	2.41	2.75	2.29

Note: Value enclosed in parentheses represents mean square error.

* $p \leq .05$ ** $p \leq .025$ *** $p \leq .001$

Table 23
Two way Analysis of Variance for Item 10 of the expressed likelihood for future information seeking and behavior statements ("Use the Internet to go to a candidate's website")

Between subjects	df	F
Message (M)	2	4.643 **
Channel (C)	1	12.774 ***
M x C	2	.026
s within group		
error	595	(2.097)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)***

Television	2.48
Internet	2.91

Main Effects across Message (cumulative mean scores)**

Campaign Ads	2.64
Broadcast News	2.94
Debate	2.51

Between group comparison: (News*Ads)*; (News*Debate)**

	Mean Scores		
	Campaign Ads	Broadcast News	Debate
Television	2.41	2.75	2.29
Internet	2.86	3.14	2.73

* $p \leq .05$ ** $p \leq .025$ *** $p \leq .001$

Table 24
Two way Analysis of Variance for total number of correct responses on learning statements (CORRECT)

Between subjects	df	F
Message (M)	2	3.643 **
Channel (C)	1	.402
M x C	2	1.104
s within group		
error	144	(4.789)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)	
Television	6.33
Internet	6.49

Main Effects across Message (cumulative mean scores)**	
Campaign Ads	5.84
Broadcast News	7.02
Debate	6.36

Between group comparison: (Ads/News)**

	Mean Scores		
	Campaign Ads	Broadcast News	Debate
Television	5.44	6.84	6.72
Internet	6.24	7.20	6.88

* p ≤ .05 ** p ≤ .025 *** p ≤ .001

Table 25
Two way Analysis of Variance for overall view of George Allen (VIEWALLE)

Between subjects	df	F
Message (M)	2	1.409
Channel (C)	1	.000
M x C	2	3.769 **
s within group		
error	144	(1.311)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)	
Television	3.11
Internet	3.13
Main Effects across Message (cumulative mean scores)	
Campaign Ads	2.90
Broadcast News	3.28
Debate	3.17

	Mean Scores		
	Campaign Ads	Broadcast News	Debate
Television	3.24	3.00	3.08
Internet	2.56	3.56	3.20

* p ≤ .05 ** p ≤ .025 *** p ≤ .001

Table 26
Two way Analysis of Variance for overall view of Chuck Robb (VIEWROBB)

Between subjects	df	F
Message (M)	2	2.313
Channel (C)	1	2.340
M x C	2	1.782
S within group		
error	144	(1.257)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)	
Television	3.21
Internet	2.89
Main Effects across Message (cumulative mean scores)	
Campaign Ads	2.82
Broadcast News	3.10
Debate	3.26

	Mean Scores		
	Campaign Ads	Broadcast News	Debate
Television	3.04	3.40	3.20
Internet	2.60	2.80	3.40

* $p \leq .05$ ** $p \leq .025$ *** $p \leq .001$

Table 27
Two way Analysis of Variance for ratings of George Allen on the feeling thermometer scales (ALENTHEM)

Between subjects	df	F
Message (M)	2	2.297
Channel (C)	1	.002
M x C	2	4.403 **
s within group		
error	143	(556.913)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)

Television	54.64
Internet	55.29

Main Effects across Message (cumulative mean scores)

Campaign Ads	51.34
Broadcast News	60.40
Debate	53.02

Between group comparison: () and ()

	Mean Scores		
	Campaign Ads	Broadcast News	Debate
Television	59.48	55.80	48.64
Internet	43.20	65.00	55.25

* p ≤ .05 ** p ≤ .025 *** p ≤ .001

Table 28
Two way Analysis of Variance for ratings of Chuck Robb on the feeling thermometer scales (ROBBTHEM)

Between subjects	df	F
Message (M)	2	3.374 *
Channel (C)	1	1.946
M x C	2	.861
s within group		
error	143	(390.514)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)	
Television	57.24
Internet	51.93
Main Effects across Message (cumulative mean scores)*	
Campaign Ads	49.36
Broadcast News	56.10
Debate	58.70

Between group comparison: (Ads/Debate)**

	Mean Scores		
	Campaign Ads	Broadcast News	Debate
Television	52.52	60.40	58.80
Internet	46.20	51.80	60.17

* p ≤ .05 ** p ≤ .025 *** p ≤ .001

Table 29
Two way Analysis of Variance for overall candidate rating from the semantic differential scales for George Allen (ALLENEVAL)

Between subjects	df	F
Message (M)	2	4.645 **
Channel (C)	1	.907
M x C	2	1.717
s within group		
error	143	(.782)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)	
Television	4.48
Internet	4.66
Main Effects across Message (cumulative mean scores)	
Campaign Ads	4.54
Broadcast News	4.83
Debate	4.33

Between group comparison: (News/Debate)**

	Mean Scores		
	Campaign Ads	Broadcast News	Debate
Television	4.61	4.45	4.39
Internet	5.05	4.63	4.18

* p ≤ .05 ** p ≤ .025 *** p ≤ .001

Table 30
Two way Analysis of Variance for overall candidate rating from the semantic differential scales for Chuck Robb (ROBBEVAL)

Between subjects	df	F
Message (M)	2	4.067 **
Channel (C)	1	2.968
M x C	2	1.355
s within group		
error	143	(.875)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)	
Television	4.83
Internet	4.56
Main Effects across Message (cumulative mean scores)	
Campaign Ads	4.39
Broadcast News	4.89
Debate	4.82

Between group comparison: (Ads/News)** and (Ads/Debate)**

	Mean Scores		
	Campaign Ads	Broadcast News	Debate
Television	5.01	4.37	5.11
Internet	4.76	4.41	4.53

* p ≤ .05 ** p ≤ .025 *** p ≤ .001

Table 31
Two way Analysis of Variance for Item 1 of the expressed likelihood for future information seeking and behavior statements ("Watch for more ads about the candidates and issues on television")

Between subjects	df	F
Message (M)	2	.175
Channel (C)	1	.118
M x C	2	7.069 ***
s within group		
error	143	(1.667)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)	
Television	3.00
Internet	3.04

Main Effects across Message (cumulative mean scores)	
Campaign Ads	3.12
Broadcast News	3.02
Debate	2.91

	Mean Scores		
	Campaign Ads	Broadcast News	Debate
Television	3.60	2.92	2.48
Internet	2.64	3.12	3.46

* p ≤ .05 ** p ≤ .025 *** p ≤ .001

Table 32
Two way Analysis of Variance for Item 2 of the expressed likelihood for future information seeking and behavior statements ("Watch the news for more information about the candidates/issues")

Between subjects	df	F
Message (M)	2	1.175
Channel (C)	1	.001
M x C	2	4.255 **
s within group		
error	143	(1.741)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)	
Television	3.35
Internet	3.39
Main Effects across Message (cumulative mean scores)	
Campaign Ads	3.20
Broadcast News	3.58
Debate	3.32

	Mean Scores		
	Campaign Ads	Broadcast News	Debate
Television	3.64	3.32	3.08
Internet	2.76	3.84	3.46

* $p \leq .05$ ** $p \leq .025$ *** $p \leq .001$

Table 33
Two way Analysis of Variance for Item 3 of the expressed likelihood for future information seeking and behavior statements ("Participate in an electronic or on-line chat or discussion about the candidates or issues")

Between subjects	df	F
Message (M)	2	4.103 **
Channel (C)	1	2.120
M x C	2	.776
s within group		
error	142	(1.477)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)	
Television	1.80
Internet	2.10
Main Effects across Message (cumulative mean scores)	
Campaign Ads	1.94
Broadcast News	2.30
Debate	1.57

Between group comparison: (News/Debate)**

	Mean Scores		
	Campaign Ads	Broadcast News	Debate
Television	1.92	2.20	1.28
Internet	1.96	2.40	1.91

* p ≤ .05 ** p ≤ .025 *** p ≤ .001

Table 34
Two way Analysis of Variance for Item 4 of the expressed likelihood for future information seeking and behavior statements ("Talk with friends about the candidates/issues")

Between subjects	df	F
Message (M)	2	3.512 *
Channel (C)	1	.059
M x C	2	.809
s within group		
error	142	(1.814)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)	
Television	3.69
Internet	3.78

Main Effects across Message (cumulative mean scores)*	
Campaign Ads	3.76
Broadcast News	4.06
Debate	3.36

Between group comparison: (News/Debate)**

	Mean Scores		
	Campaign Ads	Broadcast News	Debate
Television	3.92	4.00	3.16
Internet	3.60	4.12	3.52

* $p \leq .05$ ** $p \leq .025$ *** $p \leq .001$

Table 35
Two way Analysis of Variance for Item 5 of the expressed likelihood for future information seeking and behavior statements ("Read newspaper articles about the election")

Between subjects	df	F
Message (M)	2	1.290
Channel (C)	1	.517
M x C	2	1.542
s within group		
error	143	(2.000)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)	
Television	3.65
Internet	3.53
Main Effects across Message (cumulative mean scores)	
Campaign Ads	3.66
Broadcast News	3.74
Debate	3.36

	Mean Scores		
	Campaign Ads	Broadcast News	Debate
Television	3.96	3.88	3.12
Internet	3.36	3.60	3.50

* $p \leq .05$ ** $p \leq .025$ *** $p \leq .001$

Table 36
Two way Analysis of Variance for Item 6 of the expressed likelihood for future information seeking and behavior statements ("Contact candidate's campaign for more information")

Between subjects	df	F
Message (M)	2	5.205 **
Channel (C)	1	9.593 ***
M x C	2	.312
s within group		
error	143	(1.649)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)***	
Television	1.81
Internet	2.46
Main Effects across Message (cumulative mean scores)**	
Campaign Ads	2.38
Broadcast News	2.38
Debate	1.66

Between group comparison: (News/Debate)** and (Ads/Debate)**

	Mean Scores		
	Campaign Ads	Broadcast News	Debate
Television	1.96	2.04	1.44
Internet	2.80	2.72	1.88

* $p \leq .05$ ** $p \leq .025$ *** $p \leq .001$

Table 37
Two way Analysis of Variance for Item 7 of the expressed likelihood for future information seeking and behavior statements (Use the Internet to find out more information about the election in general")

Between subjects	df	F
Message (M)	2	3.576 *
Channel (C)	1	4.381 *
M x C	2	1.501
s within group		
error	143	(2.121)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)*

Television	2.52
Internet	3.06

Main Effects across Message (cumulative mean scores)*

Campaign Ads	2.90
Broadcast News	3.08
Debate	2.34

Between group comparison: (News/Debate)** and (Ads/Debate)*

	Mean Scores		
	Campaign Ads	Broadcast News	Debate
Television	2.36	3.00	2.20
Internet	3.44	3.16	2.46

* $p \leq .05$ ** $p \leq .025$ *** $p \leq .001$

Table 38
Two way Analysis of Variance for Item 8 of the expressed likelihood for future information seeking and behavior statements ("Vote in the next election")

Between subjects	df	F
Message (M)	2	2.107
Channel (C)	1	.042
M x C	2	2.239
s within group		
error	143	(1.626)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)	
Television	4.31
Internet	4.31
Main Effects across Message (cumulative mean scores)	
Campaign Ads	4.26
Broadcast News	4.56
Debate	4.09

	Mean Scores		
	Campaign Ads	Broadcast News	Debate
Television	4.36	4.28	4.28
Internet	4.16	4.84	3.79

* $p \leq .05$ ** $p \leq .025$ *** $p \leq .001$

Table 39
Two way Analysis of Variance for Item 9 of the expressed likelihood for future information seeking and behavior statements ("Use the Internet to find out more information about a specific political issue")

Between subjects	df	F
Message (M)	2	3.543 *
Channel (C)	1	8.371 **
M x C	2	1.296
s within group		
error	143	(2.054)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)**	
Television	2.65
Internet	3.36
Main Effects across Message (cumulative mean scores)*	
Campaign Ads	2.94
Broadcast News	3.40
Debate	2.64

Between group comparison: (News/Debate)**

	Mean Scores		
	Campaign Ads	Broadcast News	Debate
Television	2.36	3.28	2.32
Internet	3.52	3.52	2.96

* $p \leq .05$ ** $p \leq .025$ *** $p \leq .001$

Table 40
Two way Analysis of Variance for Item 10 of the expressed likelihood for future information seeking and behavior statements ("Use the Internet to go to a candidate's website")

Between subjects	df	F
Message (M)	2	1.879
Channel (C)	1	9.881 ***
M x C	2	1.046
s within group		
error	143	(2.158)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)***	
Television	2.39
Internet	3.18
Main Effects across Message (cumulative mean scores)	
Campaign Ads	3.02
Broadcast News	2.82
Debate	2.47

	Mean Scores		
	Campaign Ads	Broadcast News	Debate
Television	2.40	2.60	2.16
Internet	3.64	3.04	2.75

* $p \leq .05$ ** $p \leq .025$ *** $p \leq .001$

Table 41
Two way Analysis of Variance for total number of correct responses on learning statements (CORRECT)

Between subjects	df	F
Message (M)	2	7.381 ***
Channel (C)	1	6.720 **
Sex (S)	1	2.721
M x C	2	.802
M x S	2	1.446
C x S	1	.435
M x C x S	2	2.211
s within group error	595	(7.389)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)

	Males	Females
Television	6.01	5.74
Internet	6.82	6.20

Main Effects across Message (cumulative mean scores)

Campaign Ads	7.05	6.19
Broadcast News	6.33	6.22
Debate	5.74	5.45

Mean Scores for Males

	Campaign Ads	Broadcast News	Debate
Television	6.77	5.50	5.72
Internet	7.40	7.14	5.55

Mean Scores for Females

	Campaign Ads	Broadcast News	Debate
Television	6.06	6.02	5.10
Internet	6.23	6.31	5.90

* $p \leq .05$ ** $p \leq .025$ *** $p \leq .001$

Table 42
Two way Analysis of Variance for overall view of George Allen (VIEWALLE)

Between subjects	df	F
Message (M)	2	.005
Channel (C)	1	4.497 *
Sex (S)	1	1.904
M x C	2	.981
M x S	2	1.399
C x S	1	1.397
M x C x S	2	1.291
s within group		
error	591	(1.109)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)

	Males	Females
Television	3.20	2.96
Internet	3.30	3.24

Main Effects across Message (cumulative mean scores)

Campaign Ads	3.26	3.06
Broadcast News	3.14	3.23
Debate	3.33	3.00

Mean Scores for Males

	Campaign Ads	Broadcast News	Debate
Television	3.10	3.08	3.42
Internet	3.44	3.20	3.19

Mean Scores for Females

	Campaign Ads	Broadcast News	Debate
Television	2.89	3.14	2.86
Internet	3.24	3.27	3.20

* $p \leq .05$ ** $p \leq .025$ *** $p \leq .001$

Table 43
Two way Analysis of Variance for overall view of Chuck Robb (VIEWROBB)

Between subjects	df	F
Message (M)	2	39.257 ***
Channel (C)	1	4.869 **
Sex (S)	1	1.423
M x C	2	.871
M x S	2	5.468 **
C x S	1	.905
M x C x S	2	.213
s within group error	599	(.885)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)

	Males	Females
Television	2.89	2.99
Internet	3.11	3.09

Main Effects across Message (cumulative mean scores)**

Campaign Ads	2.38	2.73
Broadcast News	3.37	3.15
Debate	3.30	3.24

Between group comparison:(M-Ads*F-Ads)**

Mean Scores for Males

	Campaign Ads	Broadcast News	Debate
Television	2.31	3.24	3.14
Internet	2.42	3.47	3.51

Mean Scores for Females

	Campaign Ads	Broadcast News	Debate
Television	2.70	3.18	3.10
Internet	2.78	3.14	3.39

* p ≤ .05 ** p ≤ .025 *** p ≤ .001

Table 44
Two way Analysis of Variance for ratings of George Allen on the feeling thermometer scales (ALENTHEM)

Between subjects	df	F
Message (M)	2	3.578 **
Channel (C)	1	11.879 ***
Sex (S)	1	3.021 *
M x C	2	1.646
M x S	2	.027
C x S	1	2.180
M x C x S	2	3.386 *
s within group error	591	(366.416)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)

	Males	Females
Television	56.30	50.31
Internet	59.94	58.03

Main Effects across Message (cumulative mean scores)

Campaign Ads	60.73	56.72
Broadcast News	56.80	53.87
Debate	56.26	51.25

Mean Scores for Males

	Campaign Ads	Broadcast News	Debate
Television	56.33	54.04	58.52
Internet	65.49	59.47	53.08

Mean Scores for Females

	Campaign Ads	Broadcast News	Debate
Television	52.06	51.96	46.73
Internet	61.40	54.94	57.34

* $p \leq .05$ ** $p \leq .025$ *** $p \leq .001$

Table 45
Two way Analysis of Variance for ratings of Chuck Robb on the feeling thermometer scales (ROBBTHEM)

Between subjects	df	F
Message (M)	2	43.981 ***
Channel (C)	1	5.704 **
Sex (S)	1	.827
M x C	2	1.399
M x S	2	8.577 ***
C x S	1	.144
M x C x S	2	.088
s within group error	590	(269.040)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)

	Males	Females
Television	53.93	52.29
Internet	56.17	56.13

Main Effects across Message (cumulative mean scores)***

Campaign Ads	42.85	49.28
Broadcast News	63.43	57.05
Debate	60.03	56.38

Between group comparison: (M-News*F-News)** & (M-Ads*F-Ads)**

Mean Scores for Males

	Campaign Ads	Broadcast News	Debate
Television	42.75	61.20	58.30
Internet	43.10	65.73	61.24

Mean Scores for Females

	Campaign Ads	Broadcast News	Debate
Television	49.36	54.10	53.57
Internet	49.22	59.98	59.46

* $p \leq .05$ ** $p \leq .025$ *** $p \leq .001$

Table 46
Two way Analysis of Variance for overall candidate rating from the semantic differential scales for George Allen (ALLENEVAL)

Between subjects	df	F
Message (M)	2	16.133 ***
Channel (C)	1	.070
Sex (S)	1	.393
M x C	2	3.361 *
M x S	2	.302
C x S	1	4.024 *
M x C x S	2	.944
s within group error	580	(.552)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)*

	Males	Females
Television	4.67	4.53
Internet	4.58	4.66

Main Effects across Message (cumulative mean scores)

Campaign Ads	4.76	4.75
Broadcast News	4.70	4.72
Debate	4.43	4.28

Mean Scores for Males

	Campaign Ads	Broadcast News	Debate
Television	4.71	4.76	4.54
Internet	4.80	4.63	4.27

Mean Scores for Females

	Campaign Ads	Broadcast News	Debate
Television	4.56	4.77	4.24
Internet	4.95	4.65	4.39

* $p \leq .05$ ** $p \leq .025$ *** $p \leq .001$

Table 47
Two way Analysis of Variance for overall candidate rating from the semantic differential scales for Chuck Robb (ROBBEVAL)

Between subjects	df	F
Message (M)	2	19.411 ***
Channel (C)	1	.060
Sex (S)	1	.945
M x C	2	.036
M x S	2	4.038 **
C x S	1	.112
M x C x S	2	.855
s within group error	573	(.582)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)

	Males	Females
Television	4.60	4.67
Internet	4.57	4.71

Main Effects across Message (cumulative mean scores)**

Campaign Ads	4.22	4.56
Broadcast News	4.85	4.85
Debate	4.73	4.67

Between group comparison: (M-Ads*F-Ads)***

Mean Scores for Males

	Campaign Ads	Broadcast News	Debate
Television	4.27	4.83	4.72
Internet	4.17	4.89	4.74

Mean Scores for Females

	Campaign Ads	Broadcast News	Debate
Television	4.47	4.88	4.65
Internet	4.63	4.81	4.68

Table 48

Two way Analysis of Variance for total number of correct responses on learning statements (CORRECT) - Adult groups

Between subjects	df	F
Message (M)	2	3.863**
Channel (C)	1	.433
Sex (S)	1	5.183**
M x C	2	1.065
M x S	2	1.286
C x S	1	.466
M x C x S	2	.460
s within group		
error	138	(4.687)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)

	Males	Females
Television	6.59	6.08
Internet	7.08	6.00

Main Effects across Message (cumulative mean scores)

Campaign Ads	6.31	5.33
Broadcast News	7.04	7.00
Debate	7.21	5.72

Mean Scores for Males

	Campaign Ads	Broadcast News	Debate
Television	5.85	6.92	7.08
Internet	6.77	7.17	7.83

Mean Scores for Females

	Campaign Ads	Broadcast News	Debate
Television	5.00	6.77	6.38
Internet	5.67	7.23	6.00

* $p \leq .05$ ** $p \leq .025$ *** $p \leq .001$

Table 49
Two way Analysis of Variance for overall view of George Allen (VIEWALLE)- Adult groups

Between subjects	df	F
Message (M)	2	1.518
Channel (C)	1	.001
Sex (S)	1	3.181
M x C	2	3.816 **
M x S	2	.441
C x S	1	.009
M x C x S	2	.651
s within group		
error	138	(1.316)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)

	Males	Females
Television	3.27	2.95
Internet	3.27	2.95

Main Effects across Message (cumulative mean scores)

Campaign Ads	3.00	2.79
Broadcast News	3.58	3.00
Debate	3.25	3.04

Mean Scores for Males

	Campaign Ads	Broadcast News	Debate
Television	3.23	3.25	3.33
Internet	2.77	3.92	3.17

Mean Scores for Females

	Campaign Ads	Broadcast News	Debate
Television	3.25	2.77	2.85
Internet	2.33	3.23	3.23

* $p \leq .05$ ** $p \leq .025$ *** $p \leq .001$

Table 50
Two way Analysis of Variance for overall view of Chuck Robb (VIEWROBB)- Adult groups

Between subjects	df	F
Message (M)	2	2.274
Channel (C)	1	2.216
Sex (S)	1	.017
M x C	2	1.775
M x S	2	.464
C x S	1	.045
M x C x S	2	.448
s within group error	138	(1.294)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)

	Males	Females
Television	3.22	3.21
Internet	2.89	2.97

Main Effects across Message (cumulative mean scores)

Campaign Ads	2.85	2.79
Broadcast News	2.96	3.23
Debate	3.37	3.24

Mean Scores for Males

	Campaign Ads	Broadcast News	Debate
Television	3.15	3.33	3.17
Internet	2.54	2.58	3.58

Mean Scores for Females

	Campaign Ads	Broadcast News	Debate
Television	2.92	3.46	3.23
Internet	2.67	3.00	3.23

* $p \leq .05$ ** $p \leq .025$ *** $p \leq .001$

Table 51
Two way Analysis of Variance for ratings of George Allen on the feeling thermometer scales (ALENTHEM) - Adult groups

Between subjects	df	F
Message (M)	2	2.372
Channel (C)	1	.006
Sex (S)	1	1.565
M x C	2	4.623 **
M x S	2	.244
C x S	1	.831
M x C x S	2	2.183
s within group error	137	(551.824)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)

	Males	Females
Television	55.43	53.87
Internet	58.41	50.54

Main Effects across Message (cumulative mean scores)

Campaign Ads	51.92	51.34
Broadcast News	56.73	60.40
Debate	49.00	51.88

Mean Scores for Males

	Campaign Ads	Broadcast News	Debate
Television	54.62	56.25	55.50
Internet	49.23	72.50	54.25

Mean Scores for Females

	Campaign Ads	Broadcast News	Debate
Television	64.75	55.38	42.31
Internet	36.67	58.08	56.25

* $p \leq .05$ ** $p \leq .025$ *** $p \leq .001$

Table 52
Two way Analysis of Variance for ratings of Chuck Robb on the feeling thermometer scales (ROBBTHEM)- Adult groups

Between subjects	df	F
Message (M)	2	3.243*
Channel (C)	1	1.764
Sex (S)	1	.284
M x C	2	.812
M x S	2	.057
C x S	1	.028
M x C x S	2	.741
s within group error	137	(402.016)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)

	Males	Females
Television	55.95	58.50
Internet	51.95	53.30

Main Effects across Message (cumulative mean scores)

Campaign Ads	49.23	49.50
Broadcast News	54.58	57.50
Debate	58.42	60.48

Mean Scores for Males

	Campaign Ads	Broadcast News	Debate
Television	54.62	56.25	57.08
Internet	43.85	52.92	59.75

Mean Scores for Females

	Campaign Ads	Broadcast News	Debate
Television	50.25	64.23	60.38
Internet	48.75	50.77	60.58

* $p \leq .05$ ** $p \leq .025$ *** $p \leq .001$

Table 53
Two way Analysis of Variance for overall candidate rating from the semantic differential scales for George Allen (ALLENEVAL) - Adult groups

Between subjects	df	F
Message (M)	2	4.662**
Channel (C)	1	.927
Sex (S)	1	.762
M x C	2	1.843
M x S	2	.154
C x S	1	.127
M x C x S	2	2.516
s within group		
error	137	(.781)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)

	Males	Females
Television	4.52	4.45
Internet	4.71	4.54

Main Effects across Message (cumulative mean scores)

Campaign Ads	4.61	4.46
Broadcast News	4.94	4.73
Debate	4.30	4.28

Mean Scores for Males

	Campaign Ads	Broadcast News	Debate
Television	4.50	4.47	4.60
Internet	5.30	4.75	4.01

Mean Scores for Females

	Campaign Ads	Broadcast News	Debate
Television	4.71	4.43	4.21
Internet	4.75	4.49	4.36

* $p \leq .05$ ** $p \leq .025$ *** $p \leq .001$

Table 54
Two way Analysis of Variance for overall candidate rating from the semantic differential scales for Chuck Robb (ROBBEVAL) - Adult groups

Between subjects	df	F
Message (M)	2	4.233**
Channel (C)	1	2.849
Sex (S)	1	.050
M x C	2	1.481
M x S	2	1.639
C x S	1	.003
M x C x S	2	3.186*
s within group error	137	(.853)

Note: Value enclosed in parentheses represents mean square error.

Main Effects across Channel (cumulative mean scores)

	Males	Females
Television	4.84	4.82
Internet	4.58	4.56

Main Effects across Message (cumulative mean scores)

Campaign Ads	4.54	4.23
Broadcast News	4.71	5.05
Debate	4.88	4.77

Mean Scores for Males

	Campaign Ads	Broadcast News	Debate
Television	4.56	4.67	5.31
Internet	4.86	4.42	4.46

Mean Scores for Females

	Campaign Ads	Broadcast News	Debate
Television	5.43	4.06	4.92
Internet	4.67	4.40	4.60

* $p \leq .05$ ** $p \leq .025$ *** $p \leq .001$

Table 55
Summary Table of High and Low Mean Scores Across Message (within channel) - Student Subjects

5-point Likert Scale Rating

	George Allen			Chuck Robb		
	Ads	News	Debate	Ads	News	Debate
TV	H		L	L	H	
Internet	H		L	L		H

Feeling Thermometer Scores

	George Allen			Chuck Robb		
	Ads	News	Debate	Ads	News	Debate
TV	H		L	L	H	
Internet	H		L	L	H	

Semantic Differential Scale Score

	George Allen			Chuck Robb		
	Ads	News	Debate	Ads	News	Debate
TV		H	L	L	H	
Internet	H		L	L	H	

L = lowest mean score
H = highest mean score

Table 56
Summary Table of High and Low Mean Scores Across Message (within channel)- Adult Subjects

5-point Likert Scale Rating

	George Allen			Chuck Robb		
	Ads	News	Debate	Ads	News	Debate
TV	H	L		L	H	
Internet	L	H		L		H

Feeling Thermometer Scores

	George Allen			Chuck Robb		
	Ads	News	Debate	Ads	News	Debate
TV	H		L	L	H	
Internet	L	H		L		H

Semantic Differential Scale Score

	George Allen			Chuck Robb		
	Ads	News	Debate	Ads	News	Debate
TV		H	L	L		H
Internet		H	L	L	H	

L = lowest mean score
H = highest mean score

Table 57

Summary comparison table of candidate qualities from the semantic differential scale items indicated in rank order of significance

	Television	Internet
Students		
Allen	Calm (Ads)*** Sophisticated (News)*** Qualified (News)*** Honest (News) *** Successful (News)**	Sophisticated(Ads) *** Active (Ads) *** Friendly (Ads) *** Strong (Ads) ** Sincere (Ads) ** Qualified (Ads) ** Attractive (Ads) **
Robb	Honest (News) *** Sincere (News) *** Believable (News) *** Friendly (News) *** Aggressive (News) *** Attractive (News) ** Calm (News) *	Honest (News) *** Believable (News) *** Sincere (News) *** Calm (News) *** Qualified (Debate) ** Friendly (News) ** Aggressive (Ads) *
Adults		
Allen	Calm (Debate) ** Active (Ads) *	Qualified (News) *** Successful (News) *** Sophisticated(Ads) *** Strong (News) ** Active (News) *
Robb	Sophisticated (Debate)** Believable (Debate) ** Honest (Debate) ** Calm (Debate) ** Attractive (News) ** Qualified (Debate) ** Successful (Debate) **	(no qualities show up as significant)

* p ≤ .05 ** p ≤ .025 ***p ≤ .001

Note: Parentheses indicates the message format in which the candidate received the highest mean score

Table 58
Comparison table of significance on the expressed likelihood for future information seeking statements for students and adults

Statement		Students	Adults
1.	Watch for more ads about the candidates & issues on TV	Channel	n.s
2.	Watch the news for more information about the candidates or issues	Channel	n.s.
3.	Participate in an electronic or on-line chat	Message & Channel	Message
4.	Talk with friends about the candidates or issues	Channel	Message
5.	Read newspaper articles about the election	Message & Channel	n.s.
6.	Contact a candidate's campaign for info.	Message	Message & Channel
7.	Use the Internet to find out more info. about the election in general	Message & Channel	Message & Channel
8.	Vote in next election	n.s.	n.s.
9.	Use Internet to find out info. on a specific issue	Channel	Message & Channel
10.	Use the Internet to go to a candidate's website	Message & Channel	Channel

Figure 1
Screen image from the Internet Ad Story page

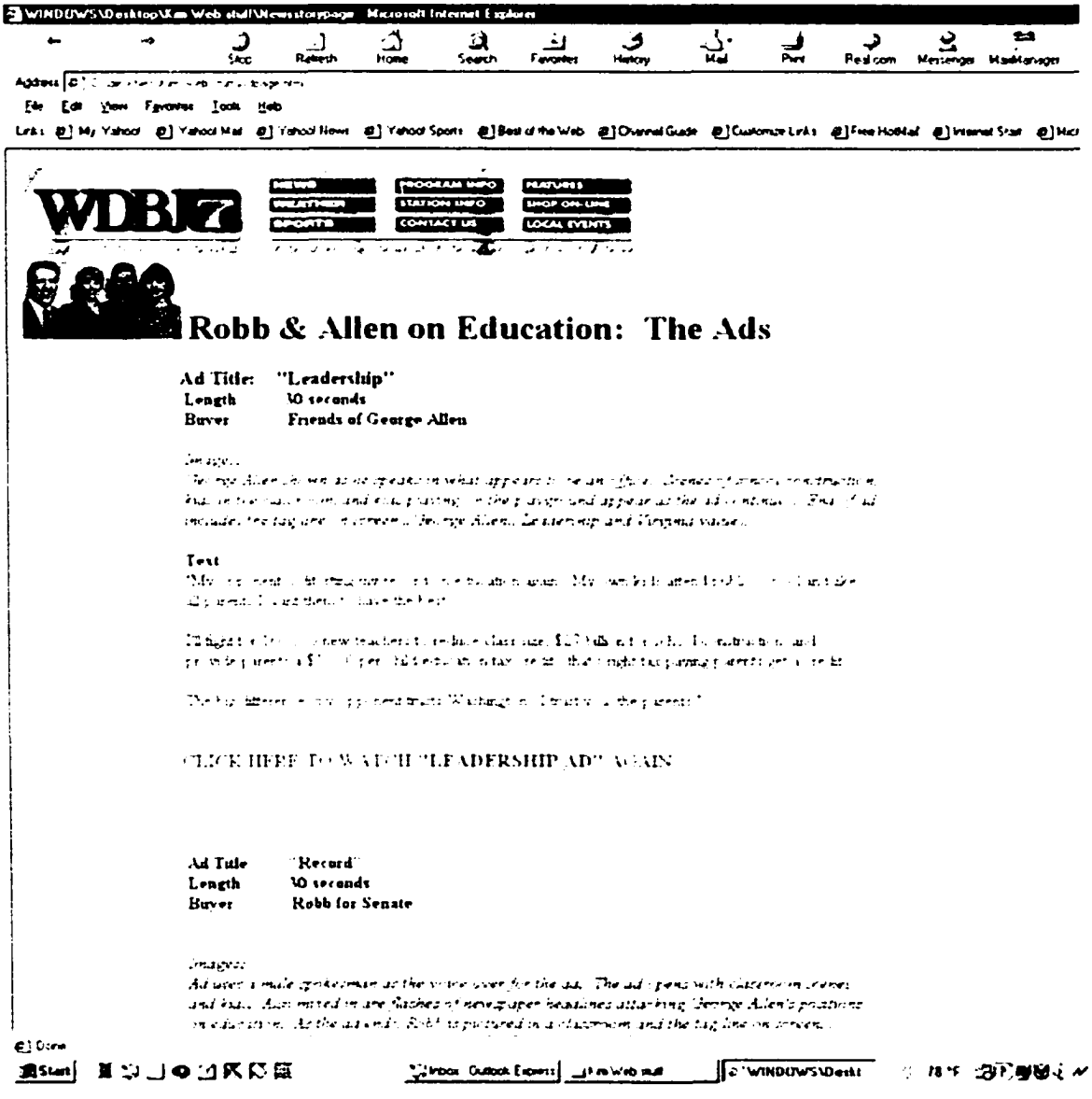
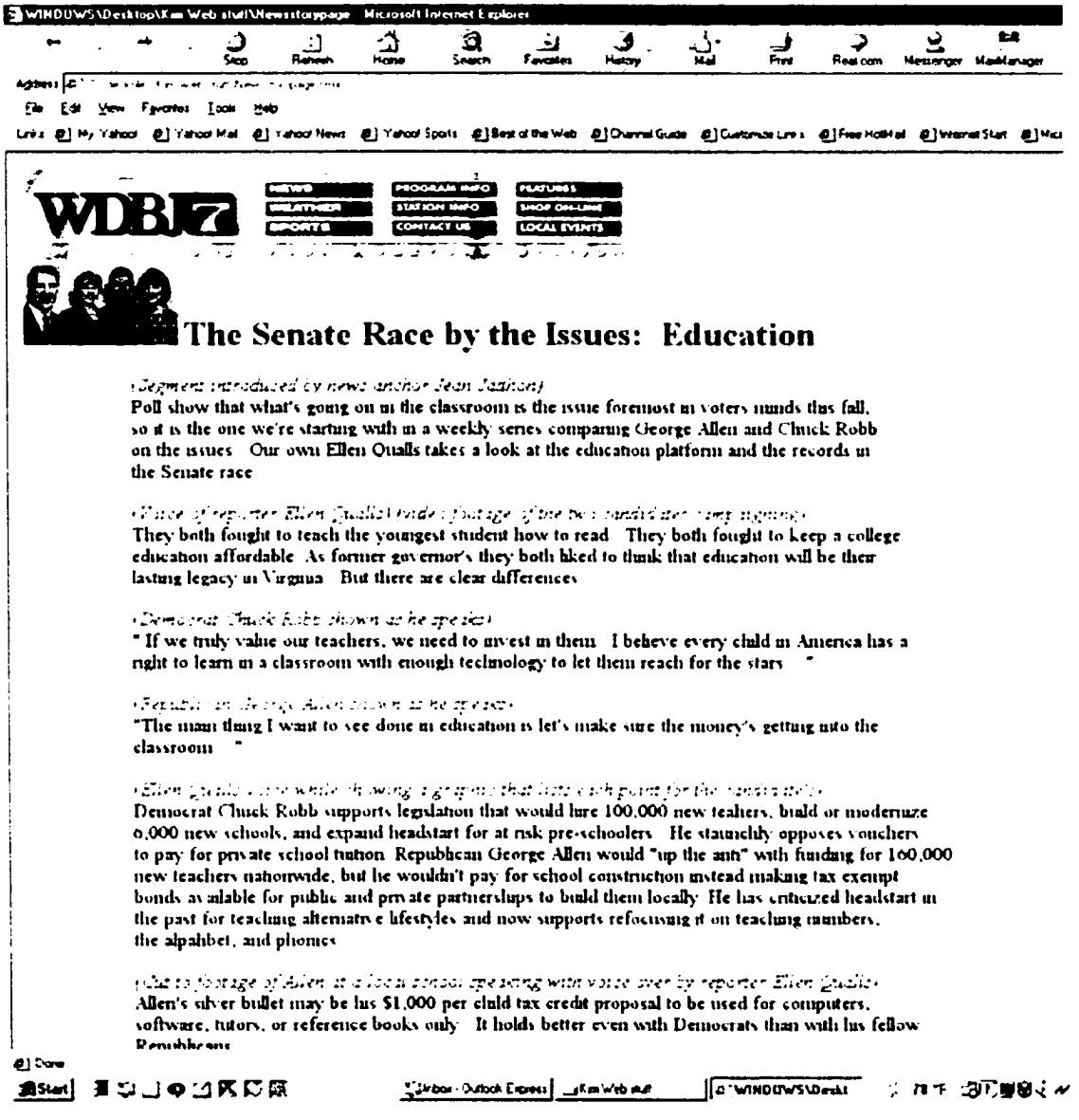


Figure 2
Screen image from the Internet News Story page



WDBJ7

The Senate Race by the Issues: Education

(Segment introduced by news anchor Jean Jashon)
Poll show that what's going on in the classroom is the issue foremost in voters minds this fall, so it is the one we're starting with in a weekly series comparing George Allen and Chuck Robb on the issues. Our own Ellen Qualls takes a look at the education platform and the records in the Senate race.

(Voice of reporter Ellen Qualls over footage of the two candidates campaigning)
They both fought to teach the youngest student how to read. They both fought to keep a college education affordable. As former governor's they both like to think that education will be their lasting legacy in Virginia. But there are clear differences.

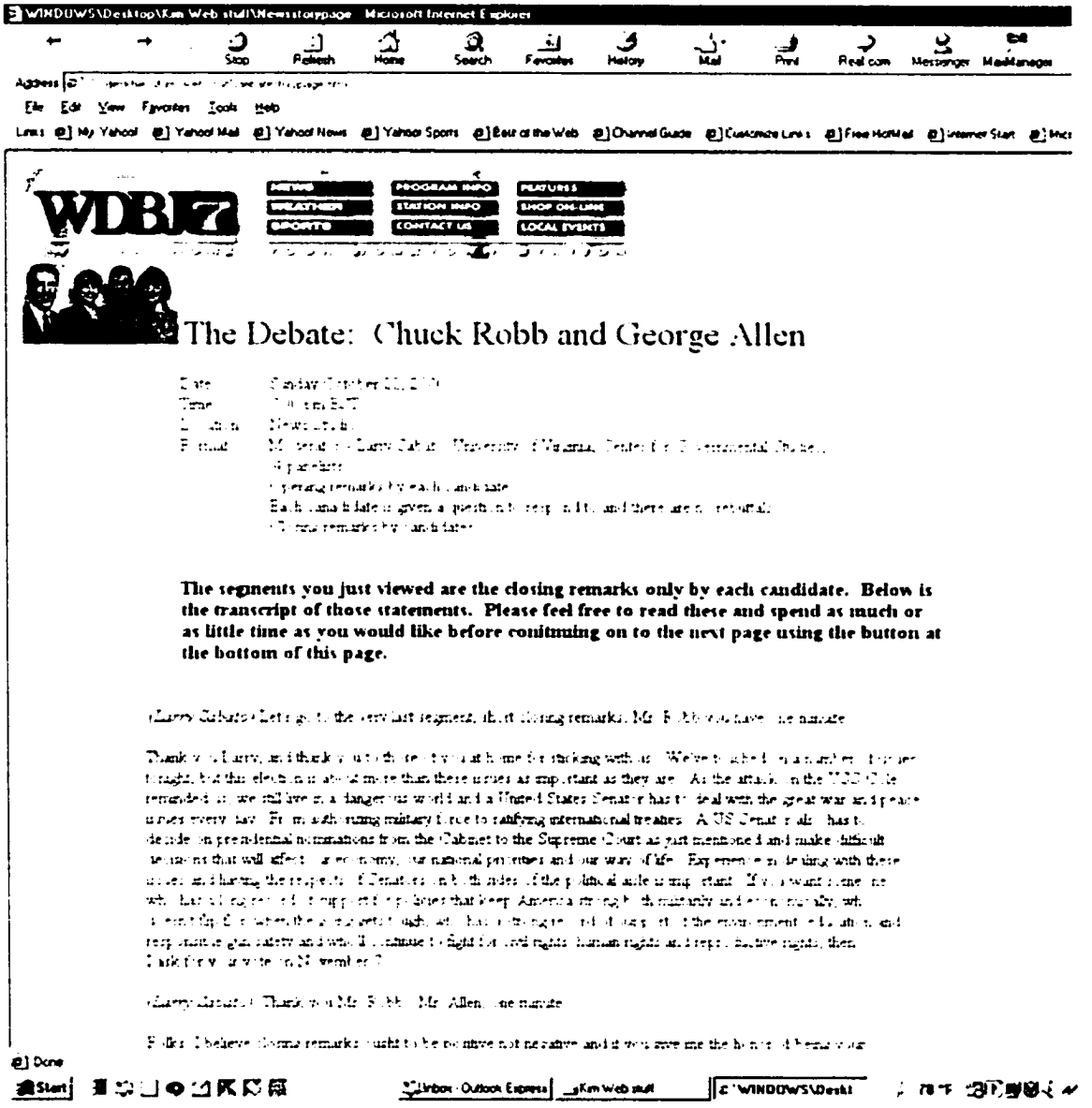
(Democrat Chuck Robb shown as he speaks)
" If we truly value our teachers, we need to invest in them. I believe every child in America has a right to learn in a classroom with enough technology to let them reach for the stars. "

(Republican George Allen shown as he speaks)
"The main thing I want to see done in education is let's make sure the money's getting into the classroom. "

(Ellen Qualls on camera while showing a graphic that lists each point for the candidates)
Democrat Chuck Robb supports legislation that would hire 100,000 new teachers, build or modernize 6,000 new schools, and expand headstart for at risk pre-schoolers. He staunchly opposes vouchers to pay for private school tuition. Republican George Allen would "up the ante" with funding for 160,000 new teachers nationwide, but he wouldn't pay for school construction instead making tax exempt bonds available for public and private partnerships to build them locally. He has criticized headstart in the past for teaching alternative lifestyles and now supports refocusing it on teaching numbers, the alphabet, and phonics.

(Cut to footage of Allen at a local school speaking with voice over by reporter Ellen Qualls)
Allen's silver bullet may be his $1,000 per child tax credit proposal to be used for computers, software, tutors, or reference books only. It holds better even with Democrats than with his fellow Republicans.

Figure 3
Screen image from the Internet Debate Story page



APPENDIX A

Subject number ____ ____ ____ ____

Male: ____ Female: ____ (Check one)

Level of school completed (circle one)

7	8	9	10	11	12	13	14	15	16	17+
grade school				high school				college		graduate degree

Age (please circle one)

under 18 18 - 24 25 - 34 35 - 44 45 - 54 55 - 64 Over 65

Which of the following best represents your political beliefs? Check one and mark the strength of your affiliation.

____ Democrat: strong:____ : ____ : ____ : ____ : ____: weak
or
____ Republican: strong:____ : ____ : ____ : ____ : ____: weak
or
____ Independent
or
____ Other: _____

What race do you consider yourself? _____

Based on the ads you just viewed, please circle the candidate that matches the issue statement listed.

Which candidate <u>is accused of</u> cutting the education budget by $100 million?

(1) George Allen (2) Chuck Robb (3) Don't know

Which candidate is the <u>target</u> of a "check the facts" campaign and website attack about his record?

(1) George Allen (2) Chuck Robb (3) Don't know

Which candidate is referred to as the "education governor"?

(1) George Allen (2) Chuck Robb (3) Don't know

Which candidate wants to offer a $1,000 per child tax credit?

(1) George Allen (2) Chuck Robb (3) Don't know

Which candidate campaigns on the slogan " a record on education we can rely on"?

(1) George Allen (2) Chuck Robb (3) Don't know

Which candidate is using a teacher as the spokesperson for their attack ?

(1) George Allen (2) Chuck Robb (3) Don't know

Which candidate wants to fund the hiring of 160,000 new teachers?

(1) George Allen (2) Chuck Robb (3) Don't know

Which candidate is being accused of "not telling the truth"?

(1) George Allen (2) Chuck Robb (3) Don't know

Which candidate had to have the Virginia legislature "rescue education" from their cutbacks?

(1) George Allen (2) Chuck Robb (3) Don't know

Which candidate uses the slogan "leadership and Virginia values"?

(1) George Allen (2) Chuck Robb (3) Don't know

Which candidate raised spending per student by 30%?

(1) George Allen (2) Chuck Robb (3) Don't know

After viewing these ads, please indicate positively or negatively you view each candidate using the scale below and marking it with "X":
(Ex. If you view George Allen very positively then you would mark the blank closest to the positive end of the scale. If you have no strong reaction in either direction and feel more neutral then you would mark the blank in the middle)

George Allen positive :____: ____: ____: ____: ____: negative

Chuck Robb positive :____: ____: ____: ____: ____: negative

After watching these ads, what personal characteristics of Allen stand out the most in your mind? (List up to 5)

1.

2.

3.

4.

5.

After watching these ads, what personal characteristics of Robb stand out the most in your mind? (List up to 5)

1.

2.

3.

4.

5.

Please give us your feelings toward George Allen on this feeling thermometer. Ratings between 50 degrees and 100 degrees mean that you feel favorable and warm toward Allen. Ratings between 0 degrees and 50 mean that you do not feel favorable toward him and that you do not care too much for him. If you do not feel particularly warm or cold, you would rate Allen at the 50 degree mark.

0 ----------50----------100

Allen _____degrees

Please react to **George Allen** on each of the scales below. For example:

If you think he is **very pleasant**, you would check the UNPLEASANT-PLEASANT scale as follows:
UNPLEASANT: ____ :____ : ____: ____ : ____ : ____: __X__: PLEASANT

On the other hand if you think that he is **very unpleasant**, you would rate him as follows:

UNPLEASANT: __X__ :____ : ____: ____ : ____ : ____: ____: PLEASANT

If you think that he is somewhere between these two extremes, then you would check the space that best represents our reaction on that scale.

If you feel that you have no reaction to George Allen on any one scale, please check the middle space to indicate your neutrality.

Please react to **George Allen** on each of the scales below:

GEORGE ALLEN

UNQUALIFIED:____ :____ : ____: ____ : ____ : ____: ____: QUALIFIED

UNSOPHISTICATED:____ :____ : ____: ____ : ____ : ____: ____: SOPHISTICATED

DISHONEST:____ :____ : ____: ____ : ____ : ____: ____: HONEST

BELIEVABLE:____ :____ : ____: ____ : ____ : ____: ____: UNBELIEVABLE

UNSUCCESSFUL:____ :____ : ____: ____ : ____ : ____: ____: SUCCESSFUL

ATTRACTIVE:____ :____ : ____: ____ : ____ : ____: ____: UNATTRACTIVE

UNFRIENDLY:____ :____ : ____: ____ : ____ : ____: ____: FRIENDLY

INSINCERE:____ :____ : ____: ____ : ____ : ____: ____: SINCERE

CALM:____ :____ : ____: ____ : ____ : ____: ____: EXCITABLE

AGGRESSIVE:____ :____ : ____: ____ : ____ : ____: ____: UNAGGRESSIVE

STRONG:____ :____ : ____: ____ : ____ : ____: ____: WEAK

INACTIVE:____ :____ : ____: ____ : ____ : ____: ____: ACTIVE

Please give us your feelings toward Chuck Robb on this feeling thermometer. Ratings between 50 degrees and 100 degrees mean that you feel favorable and warm toward Robb. Ratings between 0 degrees and 50 mean that you do not feel favorable toward him and that you do not care too much for him. If you do not feel particularly warm or cold, you would rate Robb at the 50 degree mark.

0 ----------50----------100

Robb _____degrees

Please react to **Chuck Robb** on each of the scales below.

CHUCK ROBB

UNQUALIFIED:____ :____ : ____: ____ : ____ : ____: ____: QUALIFIED

UNSOPHISTICATED:____ :____ : ____: ____ : ____ : ____: ____: SOPHISTICATED

DISHONEST:____ :____ : ____: ____ : ____ : ____: ____: HONEST

BELIEVABLE:____ :____ : ____: ____ : ____ : ____: ____: UNBELIEVABLE

UNSUCCESSFUL:____ :____ : ____: ____ : ____ : ____: ____: SUCCESSFUL

ATTRACTIVE:____ :____ : ____: ____ : ____ : ____: ____: UNATTRACTIVE

UNFRIENDLY:____ :____ : ____: ____ : ____ : ____: ____: FRIENDLY

INSINCERE:____ :____ : ____: ____ : ____ : ____: ____: SINCERE

CALM:____ :____ : ____: ____ : ____ : ____: ____: EXCITABLE

AGGRESSIVE:____ :____ : ____: ____ : ____ : ____: ____: UNAGGRESSIVE

STRONG:____ :____ : ____: ____ : ____ : ____: ____: WEAK

INACTIVE:____ :____ : ____: ____ : ____ : ____: ____: ACTIVE

Following are some feelings about politicians and politics. For each one, please indicate whether you strongly agree, agree somewhat, have no opinion, disagree somewhat, disagree strongly. (Please circle one)

A. Feelings that ordinary people are not able to influence government or politics

strongly agree agree somewhat have no opinion disagree somewhat disagree strongly

B. Sometimes politics and government seem so complicated that a person like me can't really understand what's going on

strongly agree agree somewhat have no opinion disagree somewhat disagree strongly

C. Distrust of government or politicians in general

strongly agree agree somewhat have no opinion disagree somewhat disagree strongly

D. Whether I vote or not has no influence on what politicians do

strongly agree agree somewhat have no opinion disagree somewhat disagree strongly

E. One really never knows what politicians think

strongly agree agree somewhat have no opinion disagree somewhat disagree strongly

After watching these ads, what visual elements from the ads do you remember most? (List up to 5)

1.

2.

3.

4.

5.

Different people use different sources to get information about the elections. Listed below are several sources from which people may gather political information. Please indicate how much you use **each** of the sources below to obtain information about the 2000 presidential election:

local television news	(5) a lot	4	3	2	1 (rarely)	0 (never)
national television news *(e.g. Nightly News with Tim Brokaw, CNN Headline News)*	(5) a lot	4	3	2	1 (rarely)	0 (never)
television talk shows *(e.g. Meet the Press, Face the Nation, Crossfire, Equal Time)*	(5) a lot	4	3	2	1 (rarely)	0 (never)
tv late night talk shows *(e.g. Jay Leno, David Letterman, Conan O'Brien)*	(5) a lot	4	3	2	1 (rarely)	0 (never)
morning television shows *(e.g., Good Morning America, Today, This Morning, Fox and Friends)*	(5) a lot	4	3	2	1 (rarely)	0 (never)
newspapers *(e.g. local newspaper, The Wall Street Journal, USA Today)*	(5) a lot	4	3	2	1 (rarely)	0 (never)
news magazines *(e.g. Time, Newsweek, US News and World Report)*	(5) a lot	4	3	2	1 (rarely)	0 (never)
internet *(e.g. candidate websites, political websites, news websites)*	(5) a lot	4	3	2	1 (rarely)	0 (never)
radio news *(e.g. local news on the radio, national news briefs on the hour or half-hour)*	(5) a lot	4	3	2	1 (rarely)	0 (never)
political talk radio shows *(e.g. Rush Limbaugh, G. Gordon Liddy, Jim Hightower, NPR)*	(5) a lot	4	3	2	1 (rarely)	0 (never)
speaking with others *(e.g. family, friends, co-workers)*	(5) a lot	4	3	2	1 (rarely)	0 (never)

After this session, how likely are you to engage in the following activities:

1. Watch for more ads about the candidates and issues on television

Very likely: ____ : ____ : ____ : ____ : ____: Not very likely

2. Watch the news for more information about the candidates/issues

Very likely: ____ : ____ : ____ : ____ : ____: Not very likely

3. Participate in an electronic or on-line chat or discussion about the candidates or issues

Very likely: ____ : ____ : ____ : ____ : ____: Not very likely

4. Talk with friends about the candidates/issues

Very likely: ____ : ____ : ____ : ____ : ____: Not very likely

5. Read newspaper articles about the election

Very likely: ____ : ____ : ____ : ____ : ____: Not very likely

6. Contact a candidate's campaign for more information

Very likely: ____ : ____ : ____ : ____ : ____: Not very likely

7. Use the internet to find out more information about the election in general

Very likely: ____ : ____ : ____ : ____ : ____: Not very likely

8. Vote in the next election

Very likely: ____ : ____ : ____ : ____ : ____: Not very likely

9. Use the internet to find out more information about a specific political issue

Very likely: ____ : ____ : ____ : ____ : ____: Not very likely

10. Use the internet to go to a candidate's website

Very likely: ____ : ____ : ____ : ____ : ____: Not very likely

APPENDIX B

Subject number ____ ____ ____ ____

Male: ____ Female: ____ (Check one)

Level of school completed (circle one)

7	8	9	10	11	12	13	14	15	16	17+
grade school				high school				college		graduate degree

Age (please circle one)

under 18	18 - 24	25 - 34	35 - 44	45 - 54	55 - 64	Over 65

Which of the following best represents your political beliefs? Check one and mark the strength of your affiliation.

____ Democrat: strong:____ : ____ : ____ : ____ : ____: weak
or
____ Republican: strong:____ : ____ : ____ : ____ : ____: weak
or
____ Independent
or
____ Other: _____

What race do you consider yourself? _____

Based on the news story you just viewed, please circle the candidate that matches the issue statement listed.

Which candidate supports legislation to hire 160,000 new teachers?

(1) George Allen (2) Chuck Robb (3) Don't know

Which candidate supports expansion of head start programs to reach at risk preschoolers?

(1) George Allen (2) Chuck Robb (3) Don't know

Which candidate opposes the use of vouchers to pay for private school tuition?

(1) George Allen (2) Chuck Robb (3) Don't know

Which candidate wants to offer a $1,000 per child tax credit?

(1) George Allen (2) Chuck Robb (3) Don't know

Which candidate is endorsed by the Virginia Education Association?

(1) George Allen (2) Chuck Robb (3) Don't know

Which candidate is the target of the advertisement segment shown in the education story?

(1) George Allen (2) Chuck Robb (3) Don't know

Which candidate wants to reform head start to focus more on numbers, the alphabet, and phonics?

(1) George Allen (2) Chuck Robb (3) Don't know

Which candidate had a budget as governor that included a record $2 billion in new school spending?

(1) George Allen (2) Chuck Robb (3) Don't know

Which candidate proposes funding to build/modernize 6,000 new schools?

(1) George Allen (2) Chuck Robb (3) Don't know

Which candidate is campaigning on the argument that if we value our teachers, we should invest in them?

(1) George Allen (2) Chuck Robb (3) Don't know

Which candidate refused to accept Goals 2000 money?

(1) George Allen (2) Chuck Robb (3) Don't know

How would evaluate the reporter's representation of the candidate's and their issue positions?

Very accurate: 5 ____ :____ : ____ : ____: ____ 1: Very inaccurate

The news story was fair in its coverage of the candidate's and the issue: (i.e., slant of the story was not biased)

Strongly agree 5: ____ : ____ : ____: ____ : ____ : 1 Strongly disagree

Please react to **George Allen** on each of the scales below. For example:

If you think he is **very pleasant**, you would check the UNPLEASANT-PLEASANT scale as follows:
UNPLEASANT: ____ :____ : ____: ____ : ____ : ____: __X__: PLEASANT

On the other hand if you think that he is **very unpleasant**, you would rate him as follows:

UNPLEASANT: __X__ :____ : ____: ____ : ____ : ____: ____: PLEASANT

If you think that he is somewhere between these two extremes, then you would check the space that best represents our reaction on that scale.

If you feel that you have no reaction to Allen on any one scale, please check the middle space to indicate your neutrality.

Please give us your feelings toward George Allen on this feeling thermometer. Ratings between 50 degrees and 100 degrees mean that you feel favorable and warm toward Allen. Ratings between 0 degrees and 50 mean that you do not feel favorable toward him and that you do not care too much for him. If you do not feel particularly warm or cold, you would rate Allen at the 50 degree mark.

0 ----------50----------100

Allen _____degrees

Please react to **George Allen** on each of the scales below:

GEORGE ALLEN

UNQUALIFIED:____ :____ : ____: ____ : ____ : ____: ____: QUALIFIED

UNSOPHISTICATED:____ :____ : ____: ____ : ____ : ____: ____: SOPHISTICATED

DISHONEST:____ :____ : ____: ____ : ____ : ____: ____: HONEST

BELIEVABLE:____ :____ : ____: ____ : ____ : ____: ____: UNBELIEVABLE

UNSUCCESSFUL:____ :____ : ____: ____ : ____ : ____: ____: SUCCESSFUL

ATTRACTIVE:____ :____ : ____: ____ : ____ : ____: ____: UNATTRACTIVE

UNFRIENDLY:____ :____ : ____: ____ : ____ : ____: ____: FRIENDLY

INSINCERE:____ :____ : ____: ____ : ____ : ____: ____: SINCERE

CALM:____ :____ : ____: ____ : ____ : ____: ____: EXCITABLE

AGGRESSIVE:____ :____ : ____: ____ : ____ : ____: ____: UNAGGRESSIVE

STRONG:____ :____ : ____: ____ : ____ : ____: ____: WEAK

INACTIVE:____ :____ : ____: ____ : ____ : ____: ____: ACTIVE

Please give us your feelings toward Chuck Robb on this feeling thermometer. Ratings between 50 degrees and 100 degrees mean that you feel favorable and warm toward Robb. Ratings between 0 degrees and 50 mean that you do not feel favorable toward him and that you do not care too much for him. If you do not feel particularly warm or cold, you would rate Robb at the 50 degree mark.

0 ----------50----------100

Robb _____degrees

Please react to **Chuck Robb** on each of the scales below.

CHUCK ROBB

UNQUALIFIED:____ :____ : ____: ____ : ____ : ____: ____: QUALIFIED

UNSOPHISTICATED:____ :____ : ____: ____ : ____ : ____: ____: SOPHISTICATED

DISHONEST:____ :____ : ____: ____ : ____ : ____: ____: HONEST

BELIEVABLE:____ :____ : ____: ____ : ____ : ____: ____: UNBELIEVABLE

UNSUCCESSFUL:____ :____ : ____: ____ : ____ : ____: ____: SUCCESSFUL

ATTRACTIVE:____ :____ : ____: ____ : ____ : ____: ____: UNATTRACTIVE

UNFRIENDLY:____ :____ : ____: ____ : ____ : ____: ____: FRIENDLY

INSINCERE:____ :____ : ____: ____ : ____ : ____: ____: SINCERE

CALM:____ :____ : ____: ____ : ____ : ____: ____: EXCITABLE

AGGRESSIVE:____ :____ : ____: ____ : ____ : ____: ____: UNAGGRESSIVE

STRONG:____ :____ : ____: ____ : ____ : ____: ____: WEAK

INACTIVE:____ :____ : ____: ____ : ____ : ____: ____: ACTIVE

Now we'd like to ask you some questions regarding your feelings about politicians and politics. Please take this opportunity to respond again using the following scales.

A. Feelings that ordinary people are not able to influence government or politics

strongly agree agree somewhat have no opinion disagree somewhat disagree strongly

B. Sometimes politics and government seem so complicated that a person like me can't really understand what's going on

strongly agree agree somewhat have no opinion disagree somewhat disagree strongly

C. People have a distrust of government or politicians in general

strongly agree agree somewhat have no opinion disagree somewhat disagree strongly

D. Whether I vote or not has no influence on what politicians do

strongly agree agree somewhat have no opinion disagree somewhat disagree strongly

E. One really never knows what politicians think

strongly agree agree somewhat have no opinion disagree somewhat disagree strong

Different people use different sources to get information about the elections. Listed below are several sources from which people may gather political information. Please indicate how much you use **each** of the sources below to obtain political information during the 2000 election:

local television news (5) a lot 4 3 2 1 (rarely) 0 (never)

national television news (5) a lot 4 3 2 1 (rarely) 0 (never)
(e.g. Nightly News with Tim Brokaw, CNN Headline News)

television talk shows (5) a lot 4 3 2 1 (rarely) 0 (never)
(e.g. Meet the Press, Face the Nation, Crossfire, Equal Time)

tv late night talk shows (5) a lot 4 3 2 1 (rarely) 0 (never)
(e.g. Jay Leno, David Letterman, Conan O'Brien)

morning television shows(5) a lot 4 3 2 1 (rarely) 0 (never)
(e.g., Good Morning America, Today, This Morning, Fox and Friends)

newspapers (5) a lot 4 3 2 1 (rarely) 0 (never)
(e.g. local newspaper, The Wall Street Journal, USA Today)

news magazines (5) a lot 4 3 2 1 (rarely) 0 (never)
(e.g. Time, Newsweek, US News and World Report)

internet (5) a lot 4 3 2 1 (rarely) 0 (never)
(e.g. candidate websites, political websites, news websites)

radio news (5) a lot 4 3 2 1 (rarely) 0 (never)
(e.g. local news on the radio, national news briefs on the hour or half-hour)

political talk radio shows (5) a lot 4 3 2 1 (rarely) 0 (never)
(e.g. Rush Limbaugh, G. Gordon Liddy, Jim Hightower, NPR)

speaking with others (5) a lot 4 3 2 1 (rarely) 0 (never)
(e.g. family, friends, co-workers)

After this session, how likely are you to engage in the following activities:

1. Watch for more ads about the candidates and issues on television

Very likely: ____ : ____ : ____ : ____ : ____: Not very likely

2. Watch the news for more information about the candidates/issues

Very likely: ____ : ____ : ____ : ____ : ____: Not very likely

3. Participate in an electronic or on-line chat or discussion about the candidates or issues

Very likely: ____ : ____ : ____ : ____ : ____: Not very likely

4. Talk with friends about the candidates/issues

Very likely: ____ : ____ : ____ : ____ : ____: Not very likely

5. Read newspaper articles about the election

Very likely: ____ : ____ : ____ : ____ : ____: Not very likely

6. Contact a candidate's campaign for more information

Very likely: ____ : ____ : ____ : ____ : ____: Not very likely

7. Use the internet to find out more information about the election in general

Very likely: ____ : ____ : ____ : ____ : ____: Not very likely

8. Vote in the next election

Very likely: ____ : ____ : ____ : ____ : ____: Not very likely

9. Use the internet to find out more information about a specific political issue

Very likely: ____ : ____ : ____ : ____ : ____: Not very likely

10. Use the internet to go to a candidate's website

Very likely: ____ : ____ : ____ : ____ : ____: Not very likely

APPENDIX C

Subject number ____ ____ ____ ____

Male: ____ Female: ____ (Check one)

Level of school completed (circle one)

7	8	9	10	11	12	13	14	15	16	17+
grade school				high school				college		graduate degree

Age (please circle one)

under 18 18 - 24 25 - 34 35 - 44 45 - 54 55 - 64 Over 65

Which of the following best represents your political beliefs? Check one and mark the strength of your affiliation.

____ Democrat: strong:____ : ____ : ____ : ____ : ____: weak
or
____ Republican: strong:____ : ____ : ____ : ____ : ____: weak
or
____ Independent
or
____ Other: _____

What race do you consider yourself? _____

Based on the debate segment you just viewed, please circle the candidate that matches the issue statement listed.

Which candidate wants to make sure we "cherish our senior citizens" and give them more control over protecting their social security?

(1) George Allen (2) Chuck Robb (3) Don't know

Which candidate talks about having a "strong and consistent record" on the environment, education and responsible gun safety?

(1) George Allen (2) Chuck Robb (3) Don't know

Which candidate claims to have the "experience and respect of other Senators"?

(1) George Allen (2) Chuck Robb (3) Don't know

Which candidate wants to offer a $1,000 per child tax credit?

(1) George Allen (2) Chuck Robb (3) Don't know

Which candidate remarks that he believes closing statements should be kept positive?

(1) George Allen (2) Chuck Robb (3) Don't know

Which candidate tries to remind us that we "still live in a dangerous world"?

(1) George Allen (2) Chuck Robb (3) Don't know

Which candidate "believes in an America where we embrace technology"?

(1) George Allen (2) Chuck Robb (3) Don't know

Which candidate boasts on having a proven record "of support for policies that keep America strong"?

(1) George Allen (2) Chuck Robb (3) Don't know

Which candidate says he will not flip flop on issues when the going gets tough?

(1) George Allen (2) Chuck Robb (3) Don't know

After viewing this debate segment, please indicate positively or negatively you view each candidate using the scale below and marking it with "X":
(Ex. If you view George Allen very positively then you would mark the blank closest to the positive end of the scale. If you have no strong reaction in either direction and feel more neutral then you would mark the blank in the middle)

George Allen positive :____: ____: ____: ____: ____: negative

Chuck Robb positive :____: ____: ____: ____: ____: negative

After watching this debate segment, what personal characteristics of Allen stand out the most in your mind? (List up to 5)

1.

2.

3.

4.

5.

After watching this debate segment, what personal characteristics of Robb stand out the most in your mind? (List up to 5)

1.

2.

3.

4.

5.

Please give us your feelings toward George Allen on this feeling thermometer. Ratings between 50 degrees and 100 degrees mean that you feel favorable and warm toward Allen. Ratings between 0 degrees and 50 mean that you do not feel favorable toward him and that you do not care too much for him. If you do not feel particularly warm or cold, you would rate Allen at the 50 degree mark.

0 ----------50----------100

Allen _____degrees

Please react to **George Allen** on each of the scales below. For example:

If you think he is **very pleasant**, you would check the UNPLEASANT-PLEASANT scale as follows:
UNPLEASANT: ____ :____ : ____: ____ : ____ : ____: __X__: PLEASANT

On the other hand if you think that he is **very unpleasant**, you would rate him as follows:

UNPLEASANT: __X__ :____ : ____: ____ : ____ : ____: ____: PLEASANT

If you think that he is somewhere between these two extremes, then you would check the space that best represents our reaction on that scale.

If you feel that you have no reaction to George Allen on any one scale, please check the middle space to indicate your neutrality.

Please react to **George Allen** on each of the scales below:

GEORGE ALLEN

UNQUALIFIED:____ :____ : ____: ____ : ____ : ____: ____: QUALIFIED

UNSOPHISTICATED:____ :____ : ____: ____ : ____ : ____: ____: SOPHISTICATED

DISHONEST:____ :____ : ____: ____ : ____ : ____: ____: HONEST

BELIEVABLE:____ :____ : ____: ____ : ____ : ____: ____: UNBELIEVABLE

UNSUCCESSFUL:____ :____ : ____: ____ : ____ : ____: ____: SUCCESSFUL

ATTRACTIVE:____ :____ : ____: ____ : ____ : ____: ____: UNATTRACTIVE

UNFRIENDLY:____ :____ : ____: ____ : ____ : ____: ____: FRIENDLY

INSINCERE:____ :____ : ____: ____ : ____ : ____: ____: SINCERE

CALM:____ :____ : ____: ____ : ____ : ____: ____: EXCITABLE

AGGRESSIVE:____ :____ : ____: ____ : ____ : ____: ____: UNAGGRESSIVE

STRONG:____ :____ : ____: ____ : ____ : ____: ____: WEAK

INACTIVE:____ :____ : ____: ____ : ____ : ____: ____: ACTIVE

Please give us your feelings toward Chuck Robb on this feeling thermometer. Ratings between 50 degrees and 100 degrees mean that you feel favorable and warm toward Robb. Ratings between 0 degrees and 50 mean that you do not feel favorable toward him and that you do not care too much for him. If you do not feel particularly warm or cold, you would rate Robb at the 50 degree mark.

0 ----------50----------100

Robb _____degrees

Please react to **Chuck Robb** on each of the scales below.

CHUCK ROBB

UNQUALIFIED:____ :____ : ____: ____ : ____ : ____: ____: QUALIFIED

UNSOPHISTICATED:____ :____ : ____: ____ : ____ : ____: ____: SOPHISTICATED

DISHONEST:____ :____ : ____: ____ : ____ : ____: ____: HONEST

BELIEVABLE:____ :____ : ____: ____ : ____ : ____: ____: UNBELIEVABLE

UNSUCCESSFUL:____ :____ : ____: ____ : ____ : ____: ____: SUCCESSFUL

ATTRACTIVE:____ :____ : ____: ____ : ____ : ____: ____: UNATTRACTIVE

UNFRIENDLY:____ :____ : ____: ____ : ____ : ____: ____: FRIENDLY

INSINCERE:____ :____ : ____: ____ : ____ : ____: ____: SINCERE

CALM:____ :____ : ____: ____ : ____ : ____: ____: EXCITABLE

AGGRESSIVE:____ :____ : ____: ____ : ____ : ____: ____: UNAGGRESSIVE

STRONG:____ :____ : ____: ____ : ____ : ____: ____: WEAK

INACTIVE:____ :____ : ____: ____ : ____ : ____: ____: ACTIVE

Following are some feelings about politicians and politics. For each one, please indicate whether you strongly agree, agree somewhat, have no opinion, disagree somewhat, disagree strongly.

A. Feelings that ordinary people are not able to influence government or politics

strongly agree agree somewhat have no opinion disagree somewhat disagree strongly

B. Sometimes politics and government seem so complicated that a person like me can't really understand what's going on

strongly agree agree somewhat have no opinion disagree somewhat disagree strongly

C. Distrust of government or politicians in general

strongly agree agree somewhat have no opinion disagree somewhat disagree strongly

D. Whether I vote or not has no influence on what politicians do

strongly agree agree somewhat have no opinion disagree somewhat disagree strongly

E. One really never knows what politicians think

strongly agree agree somewhat have no opinion disagree somewhat disagree strongly

After watching this debate segment, what visual elements from the ads do you remember most? (List up to 5)

1.

2.

3.

4.

5.

Different people use different sources to get information about the elections. Listed below are several sources from which people may gather political information. Please indicate how much you use **each** of the sources below to obtain information about the 2000 presidential election:

local television news	(5) a lot	4	3	2	1 (rarely)	0 (never)
national television news *(e.g. Nightly News with Tim Brokaw, CNN Headline News)*	(5) a lot	4	3	2	1 (rarely)	0 (never)
television talk shows *(e.g. Meet the Press, Face the Nation, Crossfire, Equal Time)*	(5) a lot	4	3	2	1 (rarely)	0 (never)
tv late night talk shows *(e.g. Jay Leno, David Letterman, Conan O'Brien)*	(5) a lot	4	3	2	1 (rarely)	0 (never)
morning television shows *(e.g., Good Morning America, Today, This Morning, Fox and Friends)*	(5) a lot	4	3	2	1 (rarely)	0 (never)
newspapers *(e.g. local newspaper, The Wall Street Journal, USA Today)*	(5) a lot	4	3	2	1 (rarely)	0 (never)
news magazines *(e.g. Time, Newsweek, US News and World Report)*	(5) a lot	4	3	2	1 (rarely)	0 (never)
internet *(e.g. candidate websites, political websites, news websites)*	(5) a lot	4	3	2	1 (rarely)	0 (never)
radio news *(e.g. local news on the radio, national news briefs on the hour or half-hour)*	(5) a lot	4	3	2	1 (rarely)	0 (never)
political talk radio shows *(e.g. Rush Limbaugh, G. Gordon Liddy, Jim Hightower, NPR)*	(5) a lot	4	3	2	1 (rarely)	0 (never)
speaking with others *(e.g. family, friends, co-workers)*	(5) a lot	4	3	2	1 (rarely)	0 (never)

After this session, how likely are you to engage in the following activities:

1. Watch for more ads about the candidates and issues on television

Very likely: ____ : ____ : ____ : ____ : ____: Not very likely

2. Watch the news for more information about the candidates/issues

Very likely: ____ : ____ : ____ : ____ : ____: Not very likely

3. Participate in an electronic or on-line chat or discussion about the candidates or issues

Very likely: ____ : ____ : ____ : ____ : ____: Not very likely

4. Talk with friends about the candidates/issues

Very likely: ____ : ____ : ____ : ____ : ____: Not very likely

5. Read newspaper articles about the election

Very likely: ____ : ____ : ____ : ____ : ____: Not very likely

6. Contact a candidate's campaign for more information

Very likely: ____ : ____ : ____ : ____ : ____: Not very likely

7. Use the internet to find out more information about the election in general

Very likely: ____ : ____ : ____ : ____ : ____: Not very likely

8. Vote in the next election

Very likely: ____ : ____ : ____ : ____ : ____: Not very likely

9. Use the internet to find out more information about a specific political issue

Very likely: ____ : ____ : ____ : ____ : ____: Not very likely

10. Use the internet to go to a candidate's website

Very likely: ____ : ____ : ____ : ____ : ____: Not very likely