

Effects of Second Screen on Traditional Television Advertising

by

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Abstract

In the media-saturated society present today, the process of multitasking between devices often results in information overload for media consumers. As a result, television viewers frequently tune out traditional television advertising and instead allocate their attention to mobile devices and social media. This use of the second screen is determined by viewers in order to fulfill their perceived media needs. In terms of live sports broadcasts, social media provides a secondary source of statistical information while also functioning as a communication hub that connects sports fans globally. These social sharing platforms enable users to gain insight into other viewer's opinions and share those of their own. This research presentation outlines the effectiveness of traditional television advertising and the likelihood of engagement with brands over social media platforms in conjunction with game viewing.

Introduction

While television was long regarded as a primary mass communication tool, the rise of the internet and, in more recent years, smart mobile devices have taken center stage. According to the most recent Pew Research Center (2015) findings, the percentage of Americans that own cell phones has increased from 96 to 98 percent over the past five years. While the increase may seem minimal, the percentage of smartphone owners in that group spiked from 52 percent in 2011 to 86 percent in 2015 (Pew Research Center, 2015).

The availability of technology in the palm of a user's hand has also spurred the growth of social media. With 74 percent of all internet users maintaining an account on at least one social media site, global interpersonal connectivity has heightened (Pew Research Internet Project, 2014). Social media users constantly voice their opinions on varying platforms in hopes of connecting with other like-minded individuals or starting discussions with those of opposing view. As a result, a social media user's television experience is augmented by conversation on their second screen.

Second screen media usage during regular television viewing has altered the way in which sports television is consumed. According to a Nielsen report, 95 percent of sports viewing occurred while the event was in progress. This differs from "general" television, where only 66 percent of programming was watched during the original air time (Nielsen, 2016a). This creates a perfect arena for social media users to voice their opinions during the game as it plays out live. During sports viewing, 76 percent of viewers admitted to using a second screen to accompany the game on television (Seymour-Hyde, Gould, & Haddad, 2013). A portion of this secondary screen time is set aside for social media conversations. These conversations often occur on the microblogging platform Twitter. A single NBA game during the week of March 7, 2016, generated 292 thousand tweets (Nielsen, March 2016). When a tweet is read by another Twitter

user, it is considered an impression. Nielsen indicated that tweets from the same game received as many as 27.4 million impressions.

In recognition of the growing trend of social game viewing, Facebook launched a new live feed known as Sports Stadium. The feed centralizes the chatter of Twitter with the expertise and supporting statistics of ESPN to generate a global conversation centered around a single game. During the launch of the interface, a Facebook spokesperson stated that the platform would be an ad-free environment for the time being (Peterson, 2016).

With viewer's eyes distracted by game-related Tweets, Snapchat game features, and an exclusively sports related Facebook news feed, traditional television ad spots may go unnoticed. Although Nielsen ratings for sports broadcasts lead media buyers to believe that purchasing ad space during games generates maximum exposure to a target audience, time spent viewing content on mobile devices could ultimately inhibit brand messages from reaching sports viewers (Seymour-Hyde, Gould, & Haddad, 2013). This study aims to determine the effects of second screen use on the recall of traditional television advertisements.

Review of Literature and Hypothesis

Media Uses and Gratifications Theory

In a simple sense, the uses and gratifications theory highlights the impact of individuals on media as opposed to the influence of media on a viewer (Haridakis, 2013). Katz's (1959)

commonly cited theory explains why present-day media consumers use a combination of both television and social media to fulfill their perceived needs.

Previous research has broken the theory down into three separate categories: those which deal with the content delivered by the media, the process of utilizing the media, and the social activity spurred by the presence of the media (Stafford, Stafford, & Schadtke, 2004). This interpersonal communication process known as social gratification explains the motivations behind television viewers to connect with others to share the experience (Kelly, Cornwell, Coote, & McAlister, 2012).

Presently, the uses and gratifications theory has been employed as a basis for testing new forms of media against traditional communications channels (Haridakis, 2013). Chronister's (2014) recent study on the use of social media during commercial breaks of television shows relied on the uses and gratifications theory to explain the phenomena of split screen viewing. In his survey, Chronister found that 59 percent of television viewers admitted to using a second screen in the form of a mobile device during commercial breaks. Of those 59 percent, the vast majority of viewers attributed their usage of the second screen to passing time or interacting with others through social media (Chronister, 2014). Television viewers in Chronister's study made the decision to forgo viewership of traditional television ads because the use of social media better filled their needs.

Similarly, a separate study found that when placed in a natural living room setting, 53 percent of participants turned on the television due to instinct (YuMe, n.d.). However, the study found that less than half of the participant's time was spent watching the TV. If the participant chose to use both the phone and the television, approximately two-thirds of the user's attention

went to the mobile device (YuMe, n.d.). Participants in the study focused their time more on their mobile device because it likely fulfilled their demands more adequately than the television.

Advertisement and Memory Recall

With media consumption occurring through multiple channels, the working memory constantly faces overload (Simon, 1974). The division of attention among multiple sources ultimately reduces the amount of information successfully encoded by the viewer (Chowdhury, Finn, & Olsen, 2007).

Chowdhury et al. (2007) found that simultaneous presentation of programming and advertising distracted viewers and created a disconnect between the advertising message and the encoder. Thus, traditional television advertising becomes an inadequate channel for sending brand messages with controversial or emotional messages (Chowdhry et al., 2007).

Another study found that only ads repeated over various channels were likely to be remembered (Appleton-Knapp, Bjork, & Wickens, 2005). Appleton-Knapp et al. (2005) found that different ads for the same brand containing a cue that resulted in the recall of a previous ad were even more likely to be remembered. The study proposes that in a crowded ad space with little time between ads, variation amongst advertisement styles increases the likelihood of recall later on (Appleton-Knapp et al., 2005). In terms of sports advertising, this study suggests that the frequency of commercial breaks during sports broadcasts requires ads to pose unique elements in order to be recalled by the viewer.

Based on the uses and gratifications theory in regards to social media as well as previous research regarding recollection of brand messaging, the following hypothesis is proposed:

H1- Participants will recall a lower amount of traditional television ads if allowed access to second screen devices.

Ad Avoidance

The development of technologies has made it easier for viewers to abstain from watching traditional television advertisements and consume alternative media that fulfills the viewer's desires. Personal video recorders such as DVR and TiVo, for example, allow individuals to cut out viewership of traditional television ad spots altogether (Baron, 2003). As a result, product placement within television shows and forced ad viewership in online platforms have emerged as a method of combatting the subsequent loss of traditional television advertisement effectiveness (Steinberg, 2002).

Channel zapping, or flipping through stations during commercial breaks, has also created a perceived loss of effectiveness for traditional television advertising (Tse & Ruby, 2001). One study found that ad-zapping decreased when the brand content was presented simultaneously with the entertainment (Chowdhry et al., 2007). This supports the shift towards product placements in shows and films, or, in the case of broadcast sports, in-game sponsorships and televised arena signage.

Heightened recall and recognition of sponsorship signage in high traffic and high profile areas have already been proven within the sports stadium (Miloch & Lambrecht, 2006). Oregen and Letter (2008) found that frequency of attending games and watching televised events increased the likelihood of brand recall for brands with signage within a stadium. Another study found that animated signage with bright colors was more likely to catch a viewer's eye, therefore leading to higher recall the advertisement later on (Breuer & Rumpf, 2015).

Many in-game sponsorships arise in the form of contests. Contests have been thought to increase customer spending in the short term as evidenced study regarding Canadian Air Miles reward program. The study noted a 42 percent increase in customer spending in the two weeks

following participation in sweepstakes derived from social media. While analyzing several different types of contests, the researchers discovered that in the case of Air Miles, social media users were more active in participating in small giveaways for smaller rewards as exemplified by highest contest engagement with a one question survey for 10 air miles (Malthouse, Vandenbosch, & Kim, 2012).

Thus, the hypothesis connecting highly televised signage and sponsorship to brand recall emerges:

RQ1- Do college-aged sports viewers engage with sponsors during the game in text to win contests?

Social Viewing

Social viewing refers to watching television with social media acting as a supplementary side conversation. This pseudo “group viewing” enables viewers to act as part of a larger group without direct interaction with others (Wohn & Na, 2011). Wohn and Na (2011) analyzed Twitter activity during television use. They found that tweets during television shows fall into one of four categories; attention, emotion, information, and opinion. The findings also proved that tweets occurred instantaneously to the actions occurring on TV and that tweeting occurred at a more rapid pace during commercial breaks (Wohn & Na, 2011).

Another study found that regardless of a person’s satisfaction with their interpersonal engagement opportunities in reality, television viewers were still drawn to social media to interact with characters, actors, and network accounts related to their favorite TV shows (Guo & Chan-Olmsted, 2015). Cameron and Geidner (2014) found that Twitter feeds often shaped a viewer’s perception of quality of performance on television and that viewers often conformed with the opinions of other Twitter users.

The gratification sought out by a viewer's use of social media spawns the following research question:

RQ2- How are viewers using their mobile devices as a way to supplement the game watching experience?

Methods

In the experiment, participants we invited to attend a research session during the evening hours in a classroom setting. Sessions were randomly assigned to be a part of group A or group B. Participants in group A were verbally restricted access to their second screen devices while group B participants were not instructed against the use of the devices.

Participants watched a 20-minute video that consisted of 15 minutes of significant moments in sports and traditional TV ads from All State, Nike, Micheline, Walt Disney World, Lakeland Regal and Trivago. Immediately following the video, participants completed a three-part online survey. The first portion of the survey sought to answer questions regarding the individual's interaction with sport and second screen use during television viewing. In the second section of the survey, students recalled the brands that presented ads during the program. The final portion of the survey asked participants to use a prompted recall to indicate which ads they remembered viewing.

Sample

A total of 32 undergraduate students in communication and Honors classes at Florida Southern College were recruited for the study. Student participation was voluntary and some of the participants received extra credit for their participation. Due to the convenience sampling method employed in the study, the findings were conclusive to the entire population.

Independent Variables

Use of Social Media

The study aims to determine if social media usage affects a participant's ability to recall brands that present traditional television ads during sports programming. Participants were randomly assigned groups that determined whether or not they would be allowed access to second screen devices during the viewing.

Traditional Television Ads

This study focuses on sports broadcast and traditional television ads. Thus, the video created will include narrated broadcast from various sports and networks. Ads were selected based on their one minute run time and product category. For example, All State insurance was selected because other insurance brands frequently place ads during sports programming.

Dependent Variables

Recall of Ads

The primary focus of this study is to determine whether or not social media impacts the recall of traditional television ads. Immediately following the video, participants took a survey in which they recalled freely and selected prompts of which brands ran traditional television ads. Some of the companies and organizations listed did not have had any sponsorship or advertisement presented during the game.

Mobile Device Use

The study also aims to determine the reasonings behind second screen usage during sporting events. In addition to the ad recall portion of the survey, participants answered questions to help determine if second screen is used to enhance their sports viewing. These questions sought to determine brand interaction as well as interaction with sports teams and statistics during game viewership. *See appendix C for survey questions.*

Data Reduction

Following the primary research collection, data was coded to determine the relationship of second screen availability and ad recall. Thus, an independent samples t-test was conducted for both free recall and prompted response measures. *See Tables 1 and 2.*

Although the results are not significant enough to encompass the population of the study, a relationship emerged. Participants in research group A, the group that was restricted from second screen devices, scored half a point lower in free recall of ads and almost a full point lower on the prompted recall portion of the survey compared to their group B counterparts that were allowed access to second screen devices.

Participants overwhelmingly agreed that they use second screen devices whilst watching television. *See Chart 1.* According to the survey questions regarding use of second screen during television viewing, interaction with brands and sports teams over social media were minimal in the sample. *See Charts 2 and 3.* However, participants suggested that social media is the primary motivation for second screen use. *See Table 3.* Among these social media, Instagram and Snapchat absorbed the majority of their second screen time. Participants frequently believed that

they could recall traditional television ads easily, but admitted that they were not likely to make a purchase based on the ad spots *See Charts 4 and 5*.

Discussion

The purpose of this research was to determine the effects of second screen devices on an individual's ability to recall traditional television ads. Although the data drawn from this study is not significant, a negative relationship between second screen and ad recall emerges. Thus, the findings of this study suggest a relationship that supports my hypothesis.

Furthermore, findings of this research largely support that of previous researchers on the topic (Wohn & Na, 2011, Guo & Chan-Olmsted, 2015, Tse & Ruby, 2001). The abundance of second screen used during television viewing exhibited by the sample suggests that such practice encompasses a new norm in today's digital age. Furthermore, participant's admitted use of social media in the second screen supports previous studies regarding the social viewing phenomena (Wohn & Na, 2011). Thus, this study serves as a platform for research surrounding social viewing in conjunction with ad recall of traditional television ads and ads present on digital platforms.

Although research participants suggested that they use second screen for social media, engagement with sports teams and brands was significantly lower than expected. Further research to explore individual's preferences on social media could further explain the perception of brand and team engagement.

Limitations of the Study

This study was limited by the sample size and sampling method. The evening scheduling of the research coupled with the lack of research culture on the Florida Southern College campus prohibited vast participation in the study. Students were drawn from communication and Honors classes with a high volume of females. Furthermore, the participants were not frequent sports viewers and therefore their responses might be generalized to television programs outside of the sports realm. *See Table 6.*

The nature of the experiment was also not ideal to conduct results representative of participant's true second screen interactions. The classroom setting of the research and short run time of the research did not simulate natural television viewing. Therefore, participants that were not restricted from second screen during the television viewing often did not reach for their devices. This study better lends itself to field observation in which participants are studied in a more natural setting.

Future Research

Despite the limitations of the study, this research serves as a platform for further research on second screen's effects on traditional television advertising. Further exploration of the relationship between stadium signage, brand sponsorship, and brand recall in terms of traditional television viewing could further explain the impact of second screen on the measures brands take to negate its effects. Eye tracking software could be employed in this study to determine the physiological effects of second screen and stadium signage on a television viewer.

Furthermore, research comparing ad recall from ads presented on a digital platform and in traditional television ad spots could determine which route of advertising is more advantageous for television viewers. This research would better lend itself to a field study in a

natural setting where research participants are not left to constantly question the nature of the study. Finally, research regarding social viewing specifically in terms of sports broadcast could ultimately determine the effects of Twitter and Facebook's Sports Stadium on game viewing.

Appendices

Appendix A Informed Consent to Participants in Research Information to Consider Before Taking Part in this Research Study

Florida Southern College Informed Consent Form

Project Title: Effects of Second Screen on Traditional Television Advertising

Principal Investigator: Emma Hamrick

E-mail: eahamrick@gmail.com

Faculty Sponsor: Mary Beth Bradford

Department: Communications

I am a Honors communications student at Florida Southern College. You are being invited to participate in a research study because you are a current student with an interest in televised sports. The purpose of the study determine the effects of second screen on traditional television advertising.

As part of this study, you will be asked to participate in a short survey following the viewing of a simulated television program. It will take you about 45 minutes to complete the study. You may receive extra credit from your professor for participating in this study.

There are no anticipated risks to you for your participation in this study.

Your privacy and research records will be kept confidential to the extent of the law. Authorized research personnel, employees of the Department of Health and Human Services, and the FSC Institutional Review Board may inspect the records from this research project. The results of this study may be published. However, only group results will be reported and you will only be directly referred to as an alias (i.e. Participant 1). The published results will not include your name or any other information that would personally identify you in any way.

**Florida Southern College
Informed Consent Form**

Your decision to take part in this study is completely voluntary. You are free to withdraw from the study at any time without penalty.

If you have any questions about this study, contact the Primary Investigator at the e-mail at the top of this form. If you have questions about your rights as an individual taking part in a research study, you may contact the Chair of the Florida Southern College Institutional Review Board, Dr. Mick Lynch, at (863-680-6205) or the FSC Vice President for Academic Affairs (863-680-4124).

I have read the Informed Consent Form and agree to participate in this study. I understand that I can withdraw from this study at any time without penalty. I understand that I (will or will not) receive payment for my participation. Additionally, I understand that this form will be renewed annually for research projects lasting longer than one year.

Name of Participant (please print) _____

Signature of Participant _____ Date _____

Signature of Investigator or Witness _____ Date _____

Appendix B

Simulated Television Program

Participants will be asked to watch this program in its entirety prior to completing the survey.

<https://youtu.be/3xLiYJmAAyM>

Appendix C

Second Screen Use Survey and Commercial Recall Quiz

The students will watch 20 minutes of a simulated sports television program prior to completing this survey and quiz.

Part 3: Second Screen Survey

1. How often do you watch sports?
 1. Daily
 2. 3-6 times per week
 3. 1-2 times per week

4. 1-3 times per month
 5. Rarely
2. Do you like or follow any sports teams on social media?
1. Yes
 2. No
3. Do you typically use a secondary device (i.e. phone, tablet, computer, etc.) while watching television?
1. Yes
 2. No
4. If yes, what do you typically do on your secondary device while watching television? If no, please write N/A.
5. Have you ever participated in a text-to-win or social media contest that you learned about from watching television?
1. Yes
 2. No

Part 2: Free Recall

1. How many commercials did you watch during this program?
1. Please list the companies that presented commercials during this program.

Part 3: Fixed Alternative Recall

1. Please select all of the companies that presented a commercial during this program:
 - All State
 - Lakeland Chrysler
 - Coors Light
 - Tim Hortons
 - Michelin
 - State Farm
 - Blue Cross
 - McDonalds
 - Kia
 - GEICO
 - Nike
 - State Farm
 - Walt Disney World
 - Bridgestone
 - Toyota
 - Regal Lakeland
 - Expedia
 - Ford
 - Trivago

Appendix D
Experiment Script

A brief summary of what will be said to participants prior to the study.

Hello, everyone! My name is Emma Hamrick and I am a senior Honors student with a double major in Advertising/Public Relations and Sports Communications/Marketing. I appreciate you all taking the time to participate in my Honors thesis study. This study should not take more than 45 minutes of your time. You may receive extra credit from your professor for participating in this study.

At this time, I would like to have you all take a moment to read over your informed consent forms. As with any research study, feel free to opt out at any time. Once you have completed your form, please place it face down on the desk in front of you.

FOR GROUP A (PROHIBITED FROM SECOND SCREEN USE)

We will now begin watching a simulated sports program. During this program, I ask that you all turn off any cell phones, computers, or tablets. Anyone that chooses to use their secondary device will be removed from the study.

FOR GROUP B (ALLOWED ACCESS TO SECOND SCREEN DEVICES)

We will now begin watching a simulated sports program. During this program, you may access your cell phone or use computers and laptops if you wish.

FOLLOWING THE PROGRAM FOR BOTH GROUPS

Thank you for watching the program. At this time, I ask that you turn on your computer monitor and complete the survey. Once the survey is complete, you may leave the research room. Thank you for participating. If you have any further questions, feel free to contact me.

Table 1

Free Recall T-Test

→ **T-Test**

Group Statistics

I am in research group...	N	Mean	Std. Deviation	Std. Error Mean
FreeCorrect A	17	2.9412	1.63824	.39733
B	15	2.4000	1.54919	.40000

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
FreeCorrect	Equal variances assumed	.505	.483	.956	30	.347	.54118	.56584	-.61442	1.69677
	Equal variances not assumed			.960	29.839	.345	.54118	.56380	-.61052	1.69287

Table 2

Prompted Recall T-Test

T-Test

Group Statistics

I am in research group...		N	Mean	Std. Deviation	Std. Error Mean
totalcorrect	A	17	19.8235	2.40404	.58307
	B	15	18.9333	2.18654	.56456

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
totalcorrect	Equal variances assumed	1.907	.178	1.090	30	.284	.89020	.81657	-.77746	2.55786
	Equal variances not assumed			1.097	29.964	.281	.89020	.81160	-.76740	2.54779

Table 3

Uses of Second Screen During Television Viewing

Second Screen Use	Number of Respondents
Social Media (General)	14

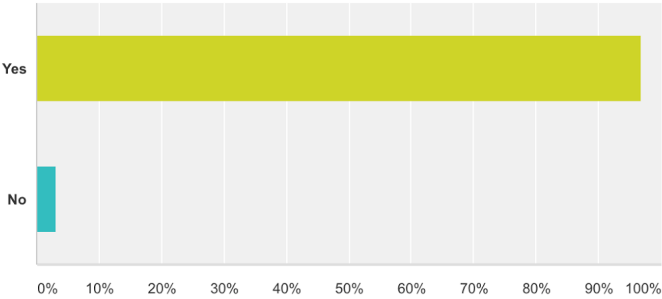
Instagram	7
Facebook	5
Twitter	3
Pinterest	3
Snapchat	7
Texting	9
Streaming video (Youtube, Netflix, etc.)	4
Gaming	1
Work/School Related Internet Use	6

Chart

1

Do you typically use a secondary device (tablet, computer, phone, etc.) while watching television?

Answered: 32 Skipped: 0



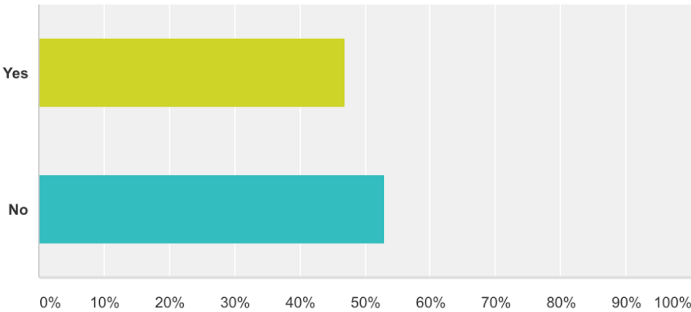
Answer Choices	Responses
Yes	96.88% 31

Chart

2

Do you like or follow any sports team on social media?

Answered: 32 Skipped: 0



Answer Choices	Responses
Yes	46.88% 15
No	53.13% 17
Total	32

Chart 3

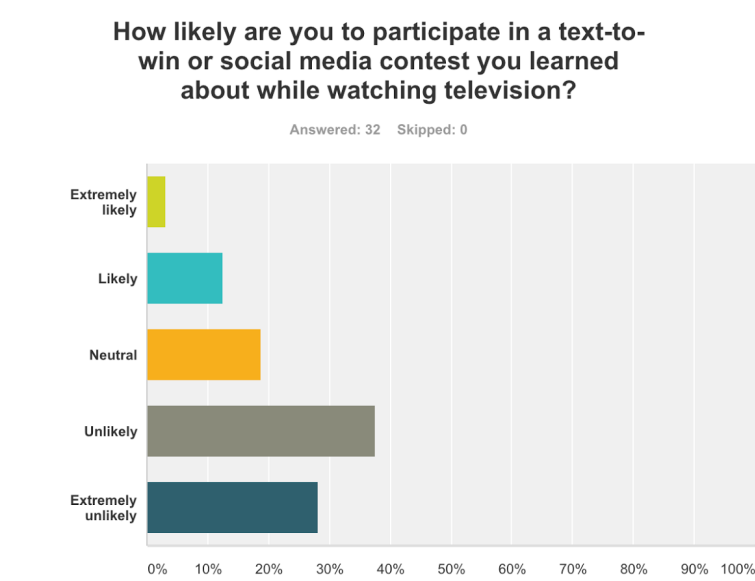


Chart 4

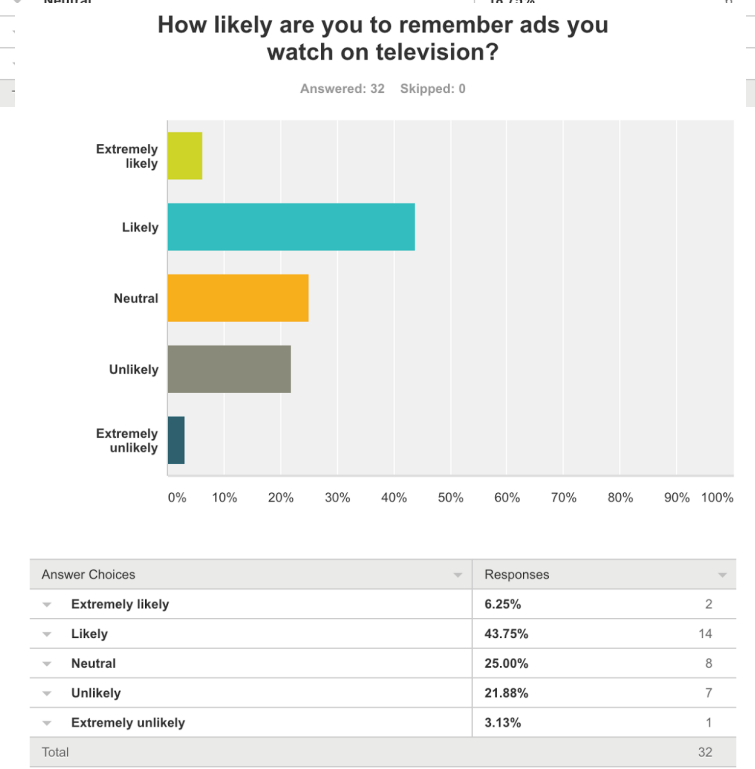


Chart 5

How likely are you to make a purchase as a result of viewing a television commercial?

Answered: 32 Skipped: 0

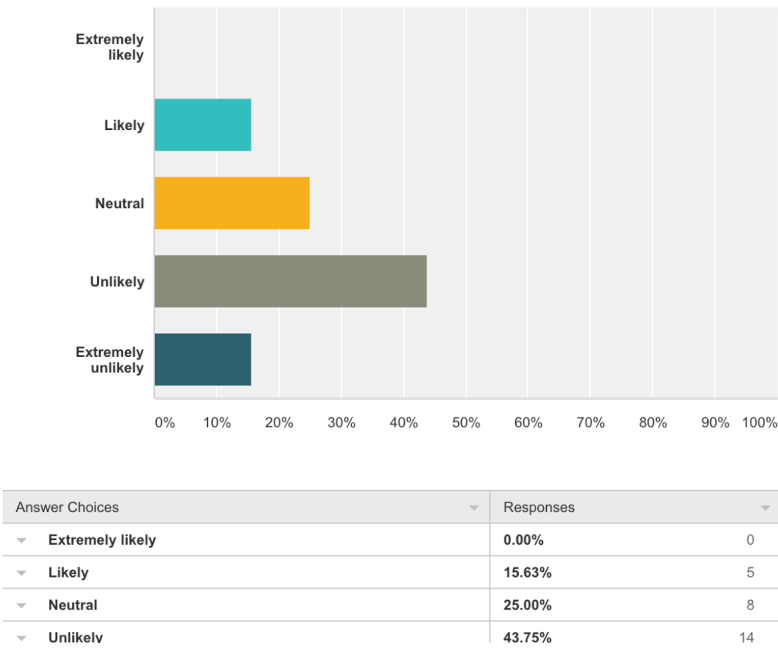
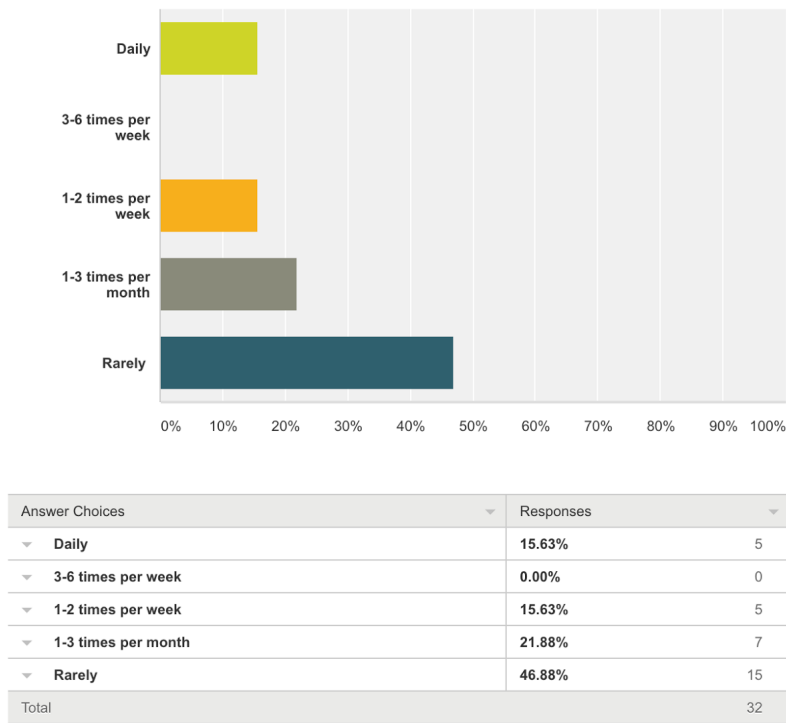


Chart 6

How often do you watch sports on television?

Answered: 32 Skipped: 0



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