Forced pre-roll video-advertising

Length, control, emotional appeal and contextual overlap of pre-roll video-ads on perceived intrusiveness, attitudes and skipping

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Abstract

Online video is currently the fastest growing advertising format, with pre-roll video-advertising as the most commonly used form. It is important to know how to use such a specific online advertising format because consumers are much more goal-oriented when using the internet and online ads are therefore perceived as much more intrusive than ads in other media. An interruption by an online ad could lead to aggravation, negative attitudes and ad avoidance which eventually influences consumer behavior. At this moment there is nearly no research on video-advertising. The aim of this study is to investigate what features of forced pre-roll video-ads have the most positive effects on the experience of the viewer confronted with them. The first experiment focuses on the length of pre-roll video-ads (15-seconds vs. 60-seconds) and the control a user is given to skip the pre-roll video-ad (with control-no control). The results show that with a 15-second video-ad, the perceived intrusiveness is marginally significantly lower. Also a video-ad with control creates a marginally significantly more positive attitude toward the brand in the video-ad.

The second experiment focuses on the content of pre-roll video-ads by manipulating the emotional appeal of the pre-roll video-ad (high emotional appeal vs. low emotional appeal) and the contextual overlap between the pre-roll video-ad and the final video the respondents will see (with overlap vs. no overlap). The results show that when the emotional appeal is high, the perceived intrusiveness is significantly lower, the attitude toward the ad is significantly more positive and the attitude toward the brand in the video-ad is marginally significantly more positive. When there is overlap between the pre-roll video-ad and the final video the perceived intrusiveness is significantly lower. Finally an interaction effect was found: when the emotional appeal of the pre-roll video-ad is low, the attitude toward the ad is significantly more positive with overlap than without overlap.
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1. Introduction

The internet is the fastest growing advertising segment in the world (Gambaro & Puglisi, 2012). In the United States alone, more than 17 billion dollar was spent on internet advertising in the first half of 2012 (IAB, 2012a) and 26.5 billion dollars in Europe in 2011 (IAB, 2012b). With the rapid growth of the internet, the use of traditional media as an advertising platform is losing ground. For example in the United Kingdom where in 2009 more money was spent on internet advertising than on television advertising (Sweney, 2009) or Russia where the expenditure of internet advertising transcended printed advertising (Chaykovskaya, 2011).

One specific online advertising format that is growing very rapidly is online video-advertising. This advertising format owes its explosive growth to the rapid acceleration of online video viewing and is currently the fastest growing advertising format (eMarketer, 2012). The largest and best known video platform that uses video advertising is YouTube. YouTube, like most video platforms, is a free to use website that earns money through advertisements. A video-ad is a video clip about a product. They appear in different forms or a combination of forms comparable to television commercials as well as clips composed by text, animations or images (Mei et al. 2007). There are various appearances of these video-ads. They can be placed before, during or after the watching of an online video, so called pre-, mid- or post-roll video-ads. They also vary in length and the amount of control a user has over the ad and of course in content as to what is presented in the video. However, despite the booming market of online video-advertising there is an ongoing trend of ad avoidance. Especially video-advertising is a format that encounters a lot of opposition and avoidance. Due to this avoidance, video-advertisers lose the opportunity to communicate their message to consumers (Teixeira et al., 2012).

For online video-ads to be successful, attention must be given to the nature of the internet user. Consumers are much more goal-oriented when using the internet and internet ads are therefore perceived as much more intrusive than ads in other media (Li et al., 2002). When ads interrupt a consumers’ goal, this may lead to undesirable outcomes such as aggravation, negative attitudes and the above mentioned ad avoidance (Krugman, 1983) which eventually influences consumer behavior (Keller, 1993). At this moment there is nearly no research on video-advertising. Video-advertising is a relatively new advertising format that shows similarities to other online ad formats like pop-ups and banners but also traditional media ads like television commercials. The aim of this study is to investigate how pre-roll video-ads, the most commonly used type of video-advertisement, can best be used.
2. Experiment 1

2.1. Theoretical framework

The goal of online advertising is to interrupt the flow of editorial content and attract the attention of Web users (Ha, 1996). This interruption is considered as intrusive because the advertisement disrupts the train of thoughts of the users (McCoy et al., 2008). Unwanted direct marketing communication messages, like video-ads, may enhance the sense of loss of control in consumers’ mind. In light of this, the psychological reactance theory by Brehm (1966) is helpful to understand the relation between perceived loss of control and the intrusiveness of an advertisement. Brehm states that psychological reactance is a motivational state directed toward the reestablishment of the free behaviors that have been eliminated or threatened with elimination. When an individual is experiencing this reactance they will be motivated to attempt to regain the lost or threatened freedom by whatever method available and appropriate (Brehm, 1966).

In television advertising, consumers are known to avoid commercials whenever they have the possibility to do so. They would leave the room, change the channel or participate in some other activity to ignore the ads (e.g. Abernethy (1991), Kurgman & Johnson (1991)). As mentioned earlier however, consumers are more goal-oriented when they are online. When an internet user is planning to watch an online video, they have a pre-set goal. When a pre-roll video-ad interrupts their ‘flow’, they are kept from achieving this goal. A consumer perceives this pre-roll video-ad as intrusive because it prevents them from accessing the content they want to see. They might feel that they have lost freedom and control in conducting their own task due to exposure to this intrusive ad (Morimoto & Chang, 2006). To lower this perceived intrusiveness, it could be wise to give the consumer control over the interrupting advertisement. Also because online advertising formats (like pop-ups, banners, interstitials etc.) have been found to negatively affect consumers’ attitudes by their interruption (Rettie, 2001).

With video-ads, it varies whether a viewer has the possibility to ‘skip’ the ad. Although it creates more freedom for the viewer and might elicit more positive responses, with the skipping of the ad the advertising company loses the opportunity to communicate their message. In figure 1 an example of a pre-roll video-ad is given.

![Figure 1: Still of a random video-ad on video platform YouTube](image-url)
from video-platform YouTube (http://www.youtube.com). This picture shows a skip button on the lower right side of the video-ad screen. A former commonly used method to skip video advertisements was to ‘refresh’ the webpage in order to load the initial video without the pre-roll video-ad. Recently however, on most video platforms, this was changed and the refreshing of the webpage became useless: the video-ad starts over again and cannot be skipped. In this way a user is forced to watch the entire ad, or part of it, in order to watch the initial video one wanted to see. Although there are other ways to avoid video-ads (for example with ad-blockers that are installed on a web browser), there is still an enormous exposure to them. It is said that in 2010, there were 2 billion video-ad views every week on YouTube (Miller, 2010).

McCoy et al. (2008) performed a study on the intrusiveness of online ads. Their focus was on whether ads obscure content and whether the user has control to remove them. For pre-roll video-ads it differs whether a user has control to remove the ad, they are however always obscuring content because they are always placed ‘on top’ of the initial video a user wants to see. McCoy et al. argue that control over an ad that is obscuring site content can minimize the interruption and that a lack of control can be intrusive. On the other hand, they claim that if an ad is not obscuring content, the control to remove an ad can be intrusive as a user has minimal gain from this control. They hypothesize that the control to remove an ad will lower perceived intrusiveness if this ad obscures web page content but will raise intrusiveness otherwise. “When ads obscure the page content, users with no control will perceive higher ad intrusiveness than users with control. Conversely, when ads do not obscure the page content, users with no control will perceive lower ad intrusiveness than users with control” (p. 678). This hypothesis is confirmed. This result is in line with the theory of psychological reactance by Brehm (1966) that states that an individual will be motivated to reestablish their freedom. They would want to regain control and with a ‘skip’-button they can. In relation to video-ads, which are always obscuring content, the presence of a button to remove the video-ad could lower the perceived intrusiveness. Hence the following hypothesis is proposed:

**H1**: A pre-roll video-ad that can be skipped leads to lower perceived intrusiveness than a pre-roll video-ad that cannot be skipped

It is the advertisers’ goal to obtain the (scarce) attention of the consumer, but the intrusive tactics that advertisers use tend to make the consumer form negative attitudes (Li et al., 2002).
In relation to the effects of control over advertisement exposure and the influence on attitudes, the learning theory by Fishbein and Ajzen (1975) is illustrating. This theory states that people acquire unfavourable attitudes toward objects associated with bad things. The negative effects associated with the situation of forced exposure to a pre-roll video-ad can transfer to attitudes associated with the video-ad. In (online) advertising research, the attitude toward the ad (the Aad) is a very commonly used measure which has been found to be superior to other persuasion based measures on advertising effectiveness (Cho et al., 2001). The Aad is an affective construct representing the affective responses to an ad by a consumer (Wang et al., 2008). More generally speaking, the Aad is a predisposition to respond in a favorable or unfavorable manner to a particular advertising stimulus during a particular exposure occasion (MacKenzie & Lutz, 1989). With the introduction of the Aad, the introduction of the attitude toward the brand (the AB) is inevitable because they are closely related. The Aad influences the AB (Cho et al., 2001) and the Aad has a direct and indirect influence on the AB through its effects on brand cognition (MacKenzie et al. 1986). The AB can be described as the consumers’ overall evaluation of a brand. This brand attitude is very important to advertisers because it often forms the basis for consumer behavior (Keller, 1993).

Following the learning theory by Fishbein & Ajzen (1975), the higher the forced exposure the more negative the effects are for the consumer. Giving a consumer control over the exposure, the attitude toward the ad and the attitude toward the brand could benefit as the advertisement becomes less forced upon the consumer and might be perceived as a ‘smaller’ interruption. The study by Cho et al. (2001) focuses on this subject. They investigate different forced exposure levels to animated banner ads. They use different levels of exposure, also incorporating the control over the ad as an exposure size. They hypothesize that a higher degree of forced exposure (with control vs. without control) will yield a more unfavourable attitude toward the banner ad (H3.1, p. 47) and attitude toward the brand (H3.2, p. 47).

Against their expectations these hypotheses were not confirmed. They suspect that this was due to the large amount of attention paid to the banner ad when forced upon the viewer that enhanced the attitudes. Nonetheless, it is still thought that giving a respondent control over the forced exposure of a pre-roll video-ad creates such a sense of freedom to the viewer that this leads to a more positive Aad and AB.

**H2:** A pre-roll video-ad that can be skipped leads to a more positive attitude toward that video-ad than a pre-roll video-ad that cannot be skipped
**H3: A pre-roll video-ad that can be skipped leads to a more positive attitude toward the brand in that video-ad than a pre-roll video-ad that cannot be skipped**

Online video-advertising shows similarities to other advertising formats, like television advertising. In research on television advertising, much attention has been given to the effects of exposure lengths of television commercials (e.g. Wheatly (1968), Rethans et al., (1986), MacInnis & Jaworski (1989), Singh & Cole (1993). Though the outcomes are mixed, the overall weight of evidence seems to favor longer commercials to have a more positive effect. Shorter commercials limit the viewers’ opportunity to elaborate on the commercials and the opportunity to process it declines. With longer commercials a consumer is enabled to realize the messages’ argument and favorable implications (Singh & Cole, 1993).

For television advertising in Europe there are strict rules about the amount of time spent on commercials. There is a maximum of 12 minutes of advertising per hour of television, 20% of the broadcasting time (European Parliament, 2007). Speculations on the amount of commercials in the United States are around 26% of the total broadcasting time (Gaebler, 2012).

The length of pre-roll video-ads can vary from several seconds to over a minute. A common method of informing a viewer about the length of a video-ad is to present this information directly in the video screen. In figure 2 a screenshot is taken from the Dutch video platform Dumpert (http://www.dumpert.nl) during a random video-ad. On the lower right side of the video screen it is indicated that the advertisement runs for 20 seconds. When an internet user is watching an online video which runs for 3 minutes, what would be an acceptable length of a pre-roll video-ad? Following the guidelines for television commercials this should be from 36 to 45 seconds (20-25%). However, as mentioned earlier, there is a different acceptance level of internet ads in comparison to other media ads due to consumers’ goal impediment when they are online. On the other hand, it must also be taken into account that video-ads are mostly presented singly, not preceded or followed by other video-ads, as is the case with television commercials.

*Figure 2: Still of a random video-ad on video platform Dumpert*
The study by Edwards et al. (2002) studies the effect of exposure lengths of online advertisements on intrusiveness. Edwards et al. use pop-up ads that show similarities to video-ads: they contain moving images as well as sound. They hypothesize that longer forced exposure to pop-up ads will be perceived as more intrusive than shorter forced exposure (H2, p. 86). They argue that a longer exposure creates a longer interruption and more perceived intrusiveness. However, they find no differences in the perception of intrusiveness between 10- and 20-second pop-up ads and thus their hypothesis is not supported. Important is that they think that this result is due to the failure in the manipulation of length. The respondents did not perceive a difference between the 10- and 20-second pop-ups and therefore no difference in perceived intrusiveness was found. Nonetheless, more support for the idea that a longer involuntary exposure to an online-ad creates longer interruption and thus higher intrusiveness is found in the study by Cho and Cheon (2004). They found that perceived goal impediment is the most important factor in causing feelings of intrusiveness and irritation for consumers confronted with internet ads. When a consumer cannot obtain their goal due to an ad, the perceived intrusiveness grows. When a consumer is kept from obtaining his goal longer, the perceived intrusiveness will grow more. In turn, these feelings of annoyance and intrusiveness can result in negative attitudes toward the ad, which can then affect brand perceptions and attitudes and lead to ad avoidance (Kelly et al., 2010). To minimize the negative effects, a shorter pre-roll video-ad seems to be favorable compared to a longer version.

The most acceptable duration is of an online ad is 15 seconds, compared to longer durations (Poll Position, 2012). However, it is unknown if this also applies specifically to pre-roll video-ads. In this experiment the choice was made to compare a shorter 15-second pre-roll video-ad with a longer 60-second version. This large difference is also chosen to reassure that there is an actual perception of difference in length, as was not achieved in the study of Edwards et al. (2002). This leads to the following hypotheses:

**H4:** A 60-second pre-roll video-ad will be perceived as more intrusive than a 15-second pre-roll video-ad

**H5:** A 15-second pre-roll video-ad leads to a more positive attitude toward that ad than a 60-second video-ad

**H6:** A 15-second pre-roll video-ad leads to a more positive attitude toward the brand than a 60-second video-ad
A final subject of discussion is the combination between the length and control of a pre-roll video-ad. According to the reactance theory by Brehm (1966) discussed earlier, a consumer would want to reestablish their freedom by clicking away the ad. With a shorter exposure to the video-ad (15 seconds), there is not much time to skip the ad. However, a longer exposure (60 seconds) to the video-ad could lead to increased skipping because the possibility to skip the video-ad is four times larger. In this light, the study by Siddarth and Chattopadhyay (1998) is interesting. They studied the determinants of channel switching during television commercials depending on their length. In their research they found that 30-second commercials have a higher zapping-probability than 15-second commercials. However, they do not acknowledge this as a difference because they assume that zapping-probabilities are twice as high when the commercial is twice as long. The current research distinguishes between a 15- and 60-second ad. This could create an even larger probability of skipping the ad for the 60-second video-ad. Hence the final hypothesis is proposed:

\[ H7: \text{A 60-second pre-roll video-ad leads to higher rates of skipping this video-ad than a 15-second pre-roll video-ad.} \]

2.2. Methodology
The goal of experiment 1 was to investigate how the length and control of video-ads can best be applied and create the most positive effects on the experience of the viewer confronted with them. The ‘positive effects’ in this experiment were measured by the responses of the respondents to intrusiveness, the attitude toward the (pre-roll video-) ad, the attitude toward the brand (in the pre-roll video-ad) and the skipping of the (pre-roll video-) ad. To investigate this, the responses of respondents were measured after being confronted with an unannounced pre-roll video-ad that preceded an online video they were planning to watch.

Design and respondents
The design of experiment 1 was a 2x2 between subjects design. The length of the video-ad (15-seconds vs. 60-seconds) was combined with the possibility to skip the ad (skipping possible vs. skipping not possible) creating 4 different research conditions. The respondents were gathered using different social media channels like Facebook, Twitter and several internet forums. The initial goal was to obtain 120 respondents, 30 respondents per research condition. When repeated attempts appeared to be insufficient to reach this amount, an online respondent database was approached to obtain the final respondents. After 189 respondents
participated in the experiment, there were 120 fully filled-in and useable questionnaires. From these final 120 respondents, 53 were men and 67 were women ranging in age from 15 to 99 ($M= 40.59$, $SD= 15.88$).

**Pretest**
Before performing the actual experiment, a small pretest was done to measure if there was a different perception of length between the 15- and 60-second video-ad. A group of 12 respondents participated in this pretest ($M=34$, $SD=14.70$). They received an e-mail with a short introduction to watch an online video and rate this video on length. One half of the group saw the 15-second video-ad, the other half saw the 60-second video-ad. The video-ad they saw was a commercial by the World Wildlife Fund (WWF). The 15- and 60-second videos were exactly the same and only edited in length. The respondents could rate the video on a scale ranging from 1 (short) to 7 (long). An independent-samples t-test was conducted to compare the perceived length of the 15-second and the 60-second video-ad. The results show that there was a highly significant difference in perception of length between the 15-second video ($M=2.50$, $SD=0.84$) and the 60-second video-ad ($M=5.17$, $SD=0.41$; $t(10)=7.02$, $p<0.001$).

**Procedure**
For this experiment a website was designed to simulate an online video platform. Before exposure to this website, the respondents were given an introductory text with an instruction about the upcoming questionnaire and information about suitable browsers they could use to perform the experiment correctly (see appendix 1). After this introductory text the respondents could commence the questionnaire by clicking on a button. At first they were given an assignment:

```
Dear respondent,
You are on the internet looking for a video of a summary of the soccer match between The Netherlands and Turkey. The video you are looking for you will find by clicking on the link below. After watching this video, close the window in which you watched the video and fill in the questionnaire.

Click here for the video!
```

When the respondents clicked on the link to the video, they were randomly assigned to one of the four websites created for this experiment. Each website presented one of the four research
conditions. A screenshot of the first image of each of these websites is given in figure 3:

![Figure 3: The four different research conditions for experiment 1](image)

When the respondent landed on one of the four websites, the video started playing automatically. As the assignment explains, the respondents were to watch a summary of a soccer match between The Netherlands and Turkey. This video was preceded by an unannounced pre-roll video-ad of the World Wildlife Fund (WWF). The same video as used in the pretest. The footage of the video-ad is derived from an original commercial and fitted for this experiment by editing length and look. Except these alterations, the videos were exactly the same. The length was edited to be exactly 15 seconds or 60 seconds. Information about the length of the video-ad was added to the video as presented on the lower left side of the video screen. Two of the four conditions also received a button to skip the video-ad positioned on the lower right side. Also the video was presented without a timeline at the bottom of the screen to prevent distraction for the respondents. All alterations and adjustments were done keeping in mind that the pre-roll video-ad had to appear as realistic as possible and comparable to the original ad and also have the look of an actual video-ad.
In condition 1 the video-ad lasted for 1 minute and the respondents had the opportunity to skip this ad. In condition 2 the video-ad lasted 15 seconds also with a possibility to skip the ad. Condition 3 is similar to condition 1 except that there is no possibility to skip the ad. Condition 4 is similar to condition 2, except that there is no possibility to skip the ad.

After watching the video, the respondents had to close the window and begin with the questionnaire. This was also indicated below the video-screen.

**Measurements**

The questionnaire (appendix 2) is created to measure the response of the respondents on the confrontation with the video-ad. The first question was a filter question to check whether the respondents saw the video-ad at all. The video-ad is created in a way that, when following the instructions, no respondent could avoid. The question was: “Did you see the WWF video-ad that preceded the video?” followed by an extra explanation wherein it is made clear that the respondent did not have to see the entire ad to answer yes: “This questions whether you saw that there was a video-ad preceding the video, you did not need to fully watch the ad to answer ‘yes’”. When the respondents answered ‘yes’ they continued to the next question, when they answered ‘no’ the questionnaire was finished because the measurements are intended to measure the perception of the video-ad.

The second question regarded the skipping of the ad and was only questioned in the conditions where there was a possibility to skip the ad (condition 1 and 2). The question was: “Did you skip the WWF video-ad by pressing “Skip this ad” or did you view the entire ad?” The answering possibilities were 1: “I watched the full video-ad” or 2: “I skipped the ad”.

For all four conditions the intrusiveness was questioned using a scale by Li et al. (2002). The question was: “When I saw the WWF video-ad, I thought it was…” followed by seven intrusiveness items (distracting, disturbing, forced, interfering, intrusive, invasive, obtrusive) with response categories from strongly disagree to strongly agree on a seven-point scale.

After the intrusiveness the attitude toward the ad (Aad) and the attitude toward the brand (AB) were questioned. This scale is based on the scale by MacKenzie and Lutz (1989). For both the Aad and the AB three semantic seven-point differential scales were used: good-bad, pleasant-unpleasant and favorable-unfavorable. For the Aad the question was: “Specify on the following scale were your opinion on the video-ad is located. I think the video-ad is…”
followed by the semantic differential scale. For the AB the question was: “I find the brand WWF:” followed by the semantic differential scale.

The questionnaire ended with general demographic questions about gender, age and education. Finally it was questioned how often the respondent watches online videos. This control question was asked to investigate whether this is equally distributed among the conditions and possible influence can be ruled out.

**Scale construction**

Using a reliability analysis the constructs were tested on their reliability (Cronbach’s alpha). In table 1 a summary is given of the constructs with the amount of reliability, means and standard deviations.

<table>
<thead>
<tr>
<th>Constructs</th>
<th>α</th>
<th>Min.</th>
<th>Max.</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intrusiveness</td>
<td>0.92</td>
<td>1.00</td>
<td>7.00</td>
<td>3.84</td>
<td>1.57</td>
</tr>
<tr>
<td>Attitude toward the ad</td>
<td>0.90</td>
<td>1.00</td>
<td>7.00</td>
<td>4.80</td>
<td>1.50</td>
</tr>
<tr>
<td>Attitude toward the brand</td>
<td>0.92</td>
<td>3.33</td>
<td>7.00</td>
<td>5.71</td>
<td>1.12</td>
</tr>
</tbody>
</table>

All items scored high in reliability so no items were deleted.

### 2.3. Results

A correlation analysis was performed to describe the strength and direction of the linear relationship between the different dependent variables of this research, see table 2.

<table>
<thead>
<tr>
<th>Constructs</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Intrusiveness</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Attitude toward the ad</td>
<td>-.55</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>3. Attitude toward the brand</td>
<td>-.28</td>
<td>.44</td>
<td>1</td>
</tr>
</tbody>
</table>

Correlation significant at 0.01

What is interesting about these results is that all three dependent variables correlate significantly with each other. There is a negative significant correlation between the intrusiveness, the attitude toward the ad and the attitude toward the brand. The difference in strength of this correlation could indicate that the intrusiveness is related to the ad more than...
to the brand. A positive significant correlation is also found between the *attitude toward the ad* and the *attitude toward the brand*.

Table 3 provides a summary of the mean scores and standard deviations of the different constructs per research condition.

**Table 3: Means and standard deviations for constructs per condition**

<table>
<thead>
<tr>
<th>Constructs</th>
<th>15-seconds M (SD)</th>
<th>60-seconds M (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No control</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intrusiveness</td>
<td>3.55 (1.21)</td>
<td>Intrusiveness</td>
</tr>
<tr>
<td>Attitude toward the ad</td>
<td>4.88 (1.34)</td>
<td>Attitude toward the ad</td>
</tr>
<tr>
<td>Attitude toward the brand</td>
<td>5.50 (1.18)</td>
<td>Attitude toward the brand</td>
</tr>
<tr>
<td><strong>With control</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intrusiveness</td>
<td>3.61 (1.55)</td>
<td>Intrusiveness</td>
</tr>
<tr>
<td>Attitude toward the ad</td>
<td>4.71 (1.66)</td>
<td>Attitude toward the ad</td>
</tr>
<tr>
<td>Attitude toward the brand</td>
<td>5.87 (1.12)</td>
<td>Attitude toward the brand</td>
</tr>
</tbody>
</table>

To investigate possible differences between the conditions and interactions of the length and control, a multivariate analysis of variance was performed. No significant interaction effects were found.

Table 4 provides a summary of the mean scores and standard deviations of the different independent variables.

**Table 4: Means and standard deviations for constructs on length and control**

<table>
<thead>
<tr>
<th>Constructs</th>
<th>15 seconds M (SD)</th>
<th>1 minute M (SD)</th>
<th>With control M (SD)</th>
<th>No control M (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intrusiveness</td>
<td>3.58 (1.38)</td>
<td>4.09 (1.72)</td>
<td>3.84 (1.51)</td>
<td>3.83 (1.64)</td>
</tr>
<tr>
<td>Attitude toward the ad</td>
<td>4.79 (1.50)</td>
<td>4.81 (1.52)</td>
<td>4.77 (1.62)</td>
<td>4.84 (1.39)</td>
</tr>
<tr>
<td>Attitude toward the brand</td>
<td>5.68 (1.16)</td>
<td>5.73 (1.10)</td>
<td>5.88 (1.09)</td>
<td>5.54 (1.14)</td>
</tr>
</tbody>
</table>

Table 5 provides a summary of the main effects of length and control on the different constructs using a multivariate analysis of variance.
Table 5: Analysis of variance for effects of length and control (n=120)

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Main effect length</th>
<th>Main effect control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>P</td>
</tr>
<tr>
<td>Intrusiveness</td>
<td>3.19^</td>
<td>0.08</td>
</tr>
<tr>
<td>Attitude toward the ad</td>
<td>0.00</td>
<td>0.95</td>
</tr>
<tr>
<td>Attitude toward the brand</td>
<td>0.06</td>
<td>0.81</td>
</tr>
</tbody>
</table>

^= marginally significant 0.05<p≤0.10

Using these results, the hypotheses can be discussed. The first hypothesis (H1) predicted that a pre-roll video-ad that can be skipped leads to lower perceived intrusiveness than a pre-roll video-ad that cannot be skipped. This hypothesis is not supported because no significant difference was found ($F<1$). The second hypothesis (H2) predicted that a pre-roll video-ad that can be skipped leads to a more positive attitude toward that video-ad than a pre-roll video-ad that cannot be skipped, this hypothesis is also not supported ($F<1$). Finally the third hypothesis (H3) predicted that a pre-roll video-ad that can be skipped leads to a more positive attitude toward the brand in that video-ad than a pre-roll video-ad that cannot be skipped. A marginally significant difference was found between the conditions to not reject this hypothesis. ($F(1,118)=2.77, p=0.10$).

It appears that giving the respondents control over the amount forced exposure to a video-ad only has a marginal effect on the attitude toward the advertised brand. Against the expectations, the intrusiveness and the attitude toward the ad were not affected by this. Perhaps it is rather the length of the video-ad that is of more influence on the dependent variables. The fourth hypothesis (H4) predicted that a 60-second pre-roll video-ad will be perceived as more intrusive than a 15-second pre-roll video-ad. The results show a marginally significant difference on intrusiveness by length ($F(1,118)=3.19, p=0.08$). Therefore this hypothesis is not rejected. The fifth hypothesis (H5) predicted that a 15-second pre-roll video-ad leads to a more positive attitude toward that ad than a 60-second video-ad. This hypothesis is rejected ($F<1$). The sixth hypothesis (H6) predicted that a 15-second pre-roll video-ad leads to a more positive attitude toward the brand than a 60-second video-ad. This hypothesis is also rejected because no significant difference was found ($F<1$). Again, for only one dependent measure a marginally significant effect was found. Apparently only the perceived intrusiveness is marginally affected by the length of the video-ad in favour of the 15-second version.
A final subject of discussion is a combination between the two independent variable of this experiment. Independently neither the length of the video-ad nor the control over the video-ad had significant effects on the dependent variables. The final hypothesis questions what the influence would be of the length of the video-ad on the skipping behavior. It was predicted that (H7) a 60-second pre-roll video-ad leads to higher rates of skipping than a 15-second pre-roll video-ad. Of the 60 respondents confronted with the video-ad with a skip-button, 27 respondents used it. The question that arises is if this was equally distributed among the conditions. Of the respondents confronted with the 15-second pre-roll video-ad 43.33% skipped it, of the respondents with the 60-second video-ad 46.67% skipped it. An independent samples t-test confirms that this difference is not significant (t(58)=0.51, \( p=0.61 \)).

The results of the first experiment show that independently a video-ad with a ‘skip’-possibility leads to a more positive attitude toward the ad than without and that a 15-second pre-roll video-ad is preferred over a 60-second video-ad to be least intrusive. As mentioned, these results are based on marginal differences so they should be treated with caution. It appears that the length and control over a forced pre-roll video-ad as manipulated in this study are not factors that have a significant influence on the perceived intrusiveness and attitudes. It was also not the prior experience with watching online video’s that could have influenced these results because the distribution was equal among the conditions (F<1).

3. Experiment 2

3.1. Theoretical framework

The results of experiment 1 show that the length and control of pre-roll video-ads, as manipulated in this experiment, are not factors that have significant influence on perceived intrusiveness and attitudes associated with the pre-roll video-ad or the skipping of the pre-roll video-ad. It might be that for pre-roll video-ads it is rather the content that is of more importance.

An important part of the content of an advertisement is determined by its emotional appeal. Different advertisements have different emotional appeals and some advertisements are more emotionally appealing than others. Emotional appeals are widely used in advertising because of the positive effect they have on consumers' reactions to advertisements (Biswas et al., 1992). An emotion is a "mental state of readiness that arises from cognitive appraisals of events or thoughts, has a phenomenological tone, often expressed physically, accompanied by
physiological processes, and may result in specific actions to affirm or cope with the emotions" (Bagozzi et al., 1999). Emotions serve to organize perception and action to achieve goals and the emotional appeal of an advertisement can have large effects on the viewer. Negative emotions can make the viewer avoid or reject the stimulus while positive emotions can make the viewer approach and retain it. This emotion induced engagement increases the likelihood of obtaining desired downstream communication effects (Teixeira et al., 2012). Teixeira et al. (2012) point out that not much is known about the positive emotions that are dominant in consumer advertising. The dynamic effects that specific positive emotions have on consumer engagement with advertising are still largely unexplored.

Positive emotions are associated with the attainment of a goal whereas negative emotions are associated with the failure to achieve desired goals (Bagozzi et al., 1999). A more positively emotional appealing advertisement will thus create a stronger feeling of attaining a goal than would a less positively appealing advertisement. Online ads have the goal to interrupt the flow of editorial content (Ha, 1996) and are therefore considered intrusive (McCoy et al., 2008). This intrusiveness is the degree to which an ad is contrary to the goal of a consumer, in this case watch an online video. To limit this intrusiveness, an advertisement can provide value to a consumer by its emotional appeal. When ads are perceived as valuable they elicit less irritation and avoidance (Pasadeos, 1990). In the study by Edwards et al. (2002), also mentioned in experiment 1, this reasoning is used to hypothesize that ads that are perceived as more entertaining will be rated as less intrusive than ads that are perceived as less entertaining (H6, p. 86). When an ad is entertaining, it provides value to its viewer. When this entertainment is welcome, it does not interrupt the cognitive goal of the viewer and thus creates less psychological reactance than an ad that is less entertaining. This hypothesis is confirmed in their study. When the emotional appeal of a video-ad is more positive, the video-ad could be perceived as more valuable and thus perceived as less intrusive. Hence the following hypothesis is proposed:

**H1: A pre-roll video-ad with a more positive emotional appeal is perceived as less intrusive than a pre-roll video-ad with a more negative emotional appeal**

It is thought that a more positive message appeal also creates more positive attitudes related to the ad than a less positive message appeal. When an advertisement has a positive emotional appeal, it creates positive emotions that could transfer to product related responses like the Aad and the AB by direct affect transfer or classical conditioning (Machleit & Wilson, 1988)
This conditioning is a form of associative learning in which the repeated pairing of a conditioned stimulus with an unconditioned stimulus will cause the conditioned stimulus to elicit a conditioned response (Allen & Madden, 1985).

In the study by Singh and Cole (1993), also mentioned in experiment 1, it is hypothesized that though longer television commercials produce a more positive attitudinal response than shorter commercials (H6, not supported), this effect would be more pronounced for an emotional commercial than for an informational commercials (H8, p. 94). Next to the idea that the (positive) emotional appeals transfer to the Aad and the AB, they also think that emotional ads might induce lower reactance compared to informational ads. When an ad creates reactance through a “hard sell”, the capacity of the message to generate compliance will lessen. They find an overall positive effect on the Aad and the AB when there is a more emotional appeal for the commercial.

Following the above reasoning, a more positive emotional appeal (compared to a more negative emotional appeal) would create better results on the attitudes toward the ad and the brand. Therefore the following hypotheses are proposed:

\[H2\]: A pre-roll video-ad with a more positive emotional appeal leads to a more positive attitude toward the ad than a pre-roll video-ad with a more negative emotional appeal

\[H3\]: A pre-roll video-ad with a more positive emotional appeal leads to a more positive attitude toward the brand than a pre-roll video-ad with a more negative emotional appeal

Next to the emotional appeal, the content of an advertisement is important as to how it fits the environment it is presented in. For television advertising, when ads are consistent with the television program on an emotional level (happy or sad), they create more favorable attitudes (e.g. Kamins et al. (1991), Coulter (1998)). Also other advertising forms on television, like product placement, show that incongruent placement of products result in negative brand attitudes (Russell, 2002).

Concerning online advertising and overlap, there is currently a discussion about the use of cookies on websites and targeted advertising. Cookies are small text files that are sent by a website to track the movement of a consumers’ computer within its pages. They can remember passwords, products one might have bought etcetera, making it possible for websites to target their advertising to the information known about a consumer (Penenberg, 2005). In this extent, when an internet user is looking for a specific video, it is possible to use that information and confront them with a video-ad that fits their search term. This targeted
advertising can lead to perceived intrusiveness and have negative effects on consumers like feelings of affected privacy (Goldfarb & Tucker, 2011). On the other hand, this can also have favorable effects. According to Mandler (1982), highly congruent information fits with the category schemas of consumers more than incongruent information and is therefore more favorable. When there is incongruence in information the evaluations are more likely to be negative (Braun-LaTour et al., 2007).

In online studies, the (positive) effect of congruent advertising is explored by i.a. Edwards et al. (2002) and Moore et al. (2005). Edwards et al. manipulated the editorial congruency of website content and advertisements. They hypothesize that ads that are congruent with the editorial content will be perceived as less intrusive than ads that are not congruent (H3, p. 86). This hypothesis is confirmed. Congruent ads are perceived as less intrusive because the consumer finds the ad valuable. Ads that are congruent with current expectations and cognitive activities could be perceived as positive social influences and form no threat to a consumer. Moore et al. (2005) confirm these results. They study the effectiveness of banner advertisements and focus on the context congruity between banner advertisements and websites on attitude toward the ad and attitude toward the website. They hypothesize that (H2, p. 73) web browsers who are aware of the advertisement will have more positive attitudes toward the ad in a congruent context than in an incongruent context. This hypothesis is supported. In light of the above discussed theory, there seems an overall positive effect of (content) congruent advertising. Therefore it is hypothesized that for video-advertising this will also have favorable effects on the intrusiveness, the attitude toward the ad and the attitude toward the brand:

\[ H4: \text{A pre-roll video-ad of which the content is congruent with the final video is perceived as less intrusive than a pre-roll video-ad that is not} \]

\[ H5: \text{A pre-roll video-ad of which the content is congruent with the final video leads to a more positive attitude toward the ad than a pre-roll video-ad that is not.} \]

\[ H6: \text{A pre-roll video-ad of which the content is congruent with the final video leads to a more positive attitude toward the brand than a pre-roll video-ad that is not} \]
3.2. Methodology

Experiment 2 focuses on the effect of the content of pre-roll video-ads. The content of pre-roll video-ads in this research is determined by the emotional appeal of the video-ad and the overlap between the content of the video-ad and the final video the viewer gets to see. The effects of these features were, like in experiment 1, measured on the perceived intrusiveness, the attitude toward the (pre-roll video-) ad and the attitude toward the brand (in the pre-roll video-ad). Similar to experiment 1, the responses of respondents were measured after being confronted with an unannounced pre-roll video-ad that preceded an online video they were planning to watch.

Design and respondents

The design of experiment 2 was a 2x2 between subjects design. The emotional appeal of the video-ad (high vs. low) was combined with the congruence between the video-ad and the final video (congruence vs. no congruence) creating 4 different research conditions. The respondents were gathered using different social media channels like Facebook, Twitter and internet forums. As for experiment 1, the initial goal was to obtain 120 respondents, 30 respondents per research condition. Similarly repeated attempts appeared to be insufficient and an online respondent database was approached to obtain the final respondents. A total of 185 respondents participated in experiment 2. Of the 185 filled-in questionnaires, 120 were useable for research. From the final 120 respondents, 47 were men and 72 were women (1 item missing) from the age 17 to 73 (M= 40.13, SD= 14.27).

Pretest

Before performing the actual experiment, a pretest was done to measure the emotional appeal of the video-ads intended to use in the experiment. A group of 12 respondents participated in this pretest (M=32, SD=15.06). They received an e-mail with a short introduction to watch an online video and rate this video on emotional appeal. It was decided to use 30-second ads in this experiment because the focus is on the content of the pre-roll video-ad. According to an industry study by the IAB (2008), 30-second video-ads are best at communicating emotional benefits and more complex messages. The first video was a 30-second version of the WWF video-ad from experiment 1, the second video was a 30-second Adidas soccer ad. The scale that was used to measure the emotional appeal was derived from a research by Hartmann and Apaolaza-Ibáñez (2013). They derived this scale from older literature that has shown the effectiveness of this scale on affective reactions to advertisements. The question was: “Specify
on the following scale what feeling you experienced while watching the video-ad: ” followed by a seven-point semantic differential scale with bipolar adjectives pleasant-unpleasant and happy-sad. An independent-samples t-test showed that the WWF video \((M=5.67, SD=0.41)\) was perceived as significantly more positively emotional appealing then the Adidas video-ad \((M=4.58, SD=0.97; t(10)=-2.52, p=0.03)\).

**Procedure**

For this experiment a website was designed to simulate an online video platform, similar to the one used in experiment 1. Before the exposure to this website, the respondents were given an introductory text with an instruction about the upcoming questionnaire and information about suitable browsers they could use to perform the experiment. This was the same as in experiment 1 (see appendix 1). After this introductory text the respondents could commence the questionnaire by clicking on a button.

At first they were given an assignment to watch a video of either the soccer match or the African savanna.

Dear respondent,
You are on the internet looking for a video of a summary of the soccer match between The Netherlands and Turkey / the African savanna. The video you are looking for you will find by clicking on the link below. After watching this video, close the window in which you watched the video and fill in the questionnaire

*Click here for the video!

When the respondents clicked on the link to the video, they were randomly assigned to one of the four websites created for this experiment. Each website presented one of the four conditions of this experiment. A still of each of these conditions is given below in figure 4:
When the respondent landed on one of the four websites, the video started playing automatically. As the assignment explains, the respondents were to watch a summary of a soccer match between The Netherlands and Turkey or footage from a nature video about the African savanna. Like in experiment 1, these video were preceded by an unannounced pre-roll video-ad. In this experiment the video-ads were either from the WWF or Adidas, as mentioned in the pretest. Both video-ads are derived from the original commercials and fitted for this experiment by editing the length and look. The length was exactly 30 seconds for both video-ads and information about the length of the ad was provided in the lower left corner of the video. Again, the videos were presented in a way that there was no timeline at the bottom of the screen to prevent distraction for the respondents. All alterations and adjustments were done keeping in mind that the video-ads had to appear as realistic as possible and comparable to the original ad and have the look of an actual video-ad.

In condition 1, the video-ad was from Adidas and the video was the soccer match summary. In condition 2, the video ad was from Adidas and the video was about the African savanna.

Figure 4: The four different research conditions for experiment 2
savanna. In condition 3, the video-ad was from the WWF and the video was about the soccer match. Condition 4 had the WWF video-ad and the video was about the African savanna.

Measurements
The questionnaire (appendix 3) is created to measure the experience of the respondents on the confrontation with the video-ads. The first question was a filter question whether the respondents noticed the video-ad at all. The video-ad is created in a way that, when following the instructions, no respondent could avoid. The question was: “Did you see the WWF/Adidas video-ad that preceded the video?” followed by an extra explanation wherein it is made clear that the respondent did not have to see the entire ad to answer yes: “This questions whether you saw that there was a video-ad preceding the video, you did not need to fully watch the ad to answer ‘yes’”. When the respondents answered ‘yes’ they continued to the next question, when answered ‘no’ the questionnaire was finished.

The second question was about the emotional appeal of the video-ad. The scale that is used was the same scale used in the pre-test by Hartmann and Apaolaza-Ibáñez (2013). The question was: “Specify on the following scale what feeling you experienced while watching the video-ad: ” followed by a seven-point semantic differential scale with bipolar adjectives pleasant-unpleasant and happy-sad.

The third question questioned the contextual overlap between the video-ad and the video. This scale was derived from a study by Choi and Rifon (2002). The question was: “Specify on the following scale what your opinion is about the correspondence between the video-ad and the video you have seen. I found the similarity between the video-ad and the video I have seen:” followed by a four item seven-point semantic differential scale with endpoints of compatible/not compatible, good fit/bad fit, relevant/irrelevant and congruent/not congruent.

After this the same constructs were measured as in experiment 1: the intrusiveness, the AAD and the AB followed by the same demographical questions. Also it was questioned how often the respondents watch online videos. This control question was asked to investigate whether this is equally distributed among the respondents so possible influence can be ruled out.

Scale construction
Using a reliability analysis the constructs were tested on their reliability (Cronbach’s alpha).
In table 6 a summary is given of the constructs with the amount of reliability, means and standard deviations.

Table 6: Reliability of constructs (n=120)

<table>
<thead>
<tr>
<th>Constructs</th>
<th>α</th>
<th>Min.</th>
<th>Max.</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional appeal</td>
<td>0.83</td>
<td>1.00</td>
<td>7.00</td>
<td>4.68</td>
<td>1.29</td>
</tr>
<tr>
<td>Overlap</td>
<td>0.96</td>
<td>1.00</td>
<td>7.00</td>
<td>4.14</td>
<td>1.67</td>
</tr>
<tr>
<td>Intrusiveness</td>
<td>0.93</td>
<td>1.00</td>
<td>7.00</td>
<td>3.90</td>
<td>1.44</td>
</tr>
<tr>
<td>Attitude toward the ad</td>
<td>0.90</td>
<td>1.00</td>
<td>7.00</td>
<td>4.56</td>
<td>1.35</td>
</tr>
<tr>
<td>Attitude toward the brand</td>
<td>0.92</td>
<td>4.00</td>
<td>7.00</td>
<td>5.56</td>
<td>0.99</td>
</tr>
</tbody>
</table>

All items scored high on reliability so no items were deleted.

Manipulation check

Although a pretest was performed to determine whether there was a difference between the emotional appeal of both video-ads, this was also tested during the experiment as a manipulation check. The results show that the respondents experienced no difference between the emotional appeal of the Adidas pre-roll video-ad and the WWF pre-roll video-ad (F<1). This manipulation, despite the results on the pretest, was unsuccessful. However, when analyzing the results, there appeared to be significant differences on the dependent variables. Therefore the decision was made not to exclude this part of the experiment. In the discussion chapter this will further be explained. The manipulation check for the overlap did show significant differences ($F$ (1,118)= 68.40, $p<0.001$).

3.3. Results

A correlation analysis was performed to describe the strength and direction of the linear relationship between the different variables of this research, see table 7.

Table 7: Correlation among the different variables (n=120)

<table>
<thead>
<tr>
<th>Constructs</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Emotional appeal</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Overlap video-ad &amp; video</td>
<td>.26</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Intrusiveness</td>
<td>-.24</td>
<td>-.44</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Attitude toward the ad</td>
<td>.58</td>
<td>.46</td>
<td>-.56</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>5. Attitude toward the brand</td>
<td>.30</td>
<td>.22</td>
<td>-.27</td>
<td>.43</td>
<td>1</td>
</tr>
</tbody>
</table>

Correlation significant at 0.01

Correlation significant at 0.05
The correlation analysis shows that all dependent variables correlate significant with each other. The emotional appeal has positive significant correlations with the overlap, the attitude toward the ad and the attitude toward the brand and a negative significant correlation with intrusiveness. Especially the correlation between the emotional appeal and the attitude toward the ad is very high. This indicates a strong relation among the variables. The overlap shows a negative significant correlation with intrusiveness and a positive significant correlation with the attitude toward the ad and the attitude toward the brand. The intrusiveness correlates significantly negative with the attitude toward the brand and the attitude toward the ad. This correlation is almost similar to that in experiment 1, again a possible indication that perceived intrusiveness is related to the ad more than to the brand. Finally a significant positive correlation was found between the attitude toward the ad and the attitude toward the brand.

Table 8 provides a summary of the mean scores and standard deviations of the different constructs per research condition.

Table 8: Means and standard deviations for constructs per condition (n=120)

<table>
<thead>
<tr>
<th></th>
<th>High EA</th>
<th>Low EA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M (SD)</td>
<td>M (SD)</td>
</tr>
<tr>
<td><strong>No overlap</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intrusiveness</td>
<td>3.80 (1.31)</td>
<td>Intrusiveness</td>
</tr>
<tr>
<td>Attitude toward the ad</td>
<td>5.10 (1.10)</td>
<td>Attitude toward the ad</td>
</tr>
<tr>
<td>Attitude toward the brand</td>
<td>5.77 (0.96)</td>
<td>Attitude toward the brand</td>
</tr>
<tr>
<td><strong>With overlap</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intrusiveness</td>
<td>3.03 (1.18)</td>
<td>Intrusiveness</td>
</tr>
<tr>
<td>Attitude toward the ad</td>
<td>5.02 (0.97)</td>
<td>Attitude toward the ad</td>
</tr>
<tr>
<td>Attitude toward the brand</td>
<td>5.70 (0.85)</td>
<td>Attitude toward the brand</td>
</tr>
</tbody>
</table>

A significant interaction-effect was found for emotional appeal and overlap (F(1,116)=4.51, p= 0.04). As shown in figure 5, the overlap influences the attitude toward the ad when the emotional appeal is low. The results show that when the emotional appeal is low, the attitude toward the ad is more positive with overlap than without overlap. No effect was found for high emotional appeal.

Figure 5: interaction effect overlap and emotional appeal on attitude toward the ad
Table 9 provides a summary of the mean scores and standard deviations of the different constructs varying between emotional appeal and overlap.

**Table 9: Means and standard deviations for constructs on emotional appeal and overlap (n=120)**

<table>
<thead>
<tr>
<th>Constructs</th>
<th>High EA</th>
<th>Low EA</th>
<th>With overlap</th>
<th>No overlap</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intrusiveness</td>
<td>3.42 (1.30)</td>
<td>4.39 (1.42)</td>
<td>3.60 (1.42)</td>
<td>4.20 (1.41)</td>
</tr>
<tr>
<td>Attitude toward the ad</td>
<td>5.06 (1.03)</td>
<td>4.05 (1.46)</td>
<td>4.76 (1.19)</td>
<td>4.36 (1.48)</td>
</tr>
<tr>
<td>Attitude toward the brand</td>
<td>5.73 (0.90)</td>
<td>5.39 (1.05)</td>
<td>5.60 (0.89)</td>
<td>5.52 (1.08)</td>
</tr>
</tbody>
</table>

Table 10 provides a summary of the main effects of emotional appeal and overlap on the different constructs using a multivariate analysis of variance.

**Table 10: Analysis of variance for effects of emotional appeal and overlap (n=120)**

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Main effect Emotional appeal</th>
<th>Main effect overlap</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>P</td>
</tr>
<tr>
<td>Intrusiveness</td>
<td>15.51*</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Attitude toward the ad</td>
<td>19.29*</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Attitude toward the brand</td>
<td>3.73^</td>
<td>0.06</td>
</tr>
</tbody>
</table>

* = significant p<0.05  
^ = marginally significant 0.05<p≤0.10

Using the information provided in table 9, the hypotheses can be discussed. The first hypothesis (H1) predicted that a pre-roll video-ad with a more positive emotional appeal is perceived as less intrusive than a pre-roll video-ad with a more negative emotional appeal. This hypothesis is supported (p<0.001). The second hypothesis (H2) predicted that a pre-roll video-ad with a more positive emotional appeal leads to a more positive attitude toward the ad than a pre-roll video-ad with a more negative emotional appeal. This hypothesis is also supported (p<0.001). The third hypothesis (H3) predicted that a pre-roll video-ad with a more positive emotional appeal leads to a more positive attitude toward the brand than a pre-roll video-ad with a more negative emotional appeal. With a marginally significant difference (p=0.06) this hypothesis was not rejected.

It would seem that the emotional appeal is an important factor in influencing the perceived intrusiveness of pre-roll video-ads, the attitude toward this ad and also the attitude...
toward the brand in the ad. However, the manipulation check found that the respondents experienced no difference in the emotional appeal of the two ads. It could be that, as the theory suggests, more value is found in a more positive emotional advertisement and that this appeal also transfers to the attitudes concerning the ad and the brand. On the other hand, since the manipulation appeared to have failed, it could have been another aspect of the video-ad that created these results. It is difficult to address these results to another factor as this is not part of the current study. In the discussion more attention will be given to this result.

Concerning the congruency, hypothesis 4 (H4) predicted that a pre-roll video-ad of which the content is congruent with the final video is perceived as less intrusive than a pre-roll video-ad that is not. This hypothesis is supported (p=0.02). The fifth hypothesis (H5) predicted that a pre-roll video-ad of which the content is congruent with the final video leads to a more positive attitude toward the ad than a pre-roll video-ad that is not. This hypothesis is not supported (F<1). The sixth hypothesis (H6) on congruency predicted that a pre-roll video-ad of which the content is congruent with the final video leads to a more positive attitude toward the brand than a pre-roll video-ad that is not, this hypothesis is not supported (F<1).

Contrary to the manipulation of emotional appeal, the congruency manipulation was successful. However, against expectations only the perceived intrusiveness seems to benefit from congruency between the content of the pre-roll video-ad and the final video. Nor the Aad nor the AB benefit from this.

4. Discussion
Due to the rapid growth of watching online videos, video-advertising is currently the fastest growing online advertising format. As with other forms of advertising, attention must be given to the experience of consumers when confronted with video-ads. When consumers are online, they tend to be much more goal-oriented than offline. The confrontation with online advertisements, like video-ads, is therefore perceived as much more intrusive than other media ads (Li et al., 2002). The effects of interrupting a consumers’ goal by an ad can have significant effects and lead to aggravation, negative attitudes and ad avoidance (Krugman, 1983). This research investigated the effects of manipulating the length, control and content of unannounced pre-roll video-ads on the perceived intrusiveness of the video-ad, the attitude toward the video-ad, the attitude toward the brand in the video-ad and the skipping of the video-ad.
Experiment 1 focused on length (15-seconds vs. 60-seconds) and control (skipping possible vs. skipping not possible) of pre-roll video-ads. A video-ad was created based on a existing commercial by the World Wildlife Fund, the final video the respondents were to see was a summary of a soccer match between the Netherlands and Turkey. The respondents received an assignment to watch the video of the soccer match, unknowing that they would be confronted with a pre-roll video-ad first. What is interesting about the results of this experiment is that no significant effects were found. Only a marginal main effect was found for the control over the video-ad on the attitude toward the brand and a marginal main effect of the length on intrusiveness. When the respondents had the ability to click away the video-ad, their attitude toward the brand was a bit more positive. This result could indicate the perceived loss of control in a forced video-advertising situation transfers to the attitude toward the brand, in line with the learning theory by Fishbein and Ajzen (1975). This loss of control may have induced psychological reactance among the respondents. In this state they would want to reestablish freedom (Brehm, 1966). When this cannot be done (when there is no ‘skip’-button), the sense of loss of control and their negative experience is directed toward an aspect of the factor that created this sense of loss of freedom. In this case the brand in the video-ad. The same reasoning could be applied to the result on the length of the ad whereas less force of a video-ad, created by a shorter exposure, lowers the sense of loss of control and thus the perceived intrusiveness. However, necessary to mention again, these result are only marginal and should be treated with caution. What perhaps has a larger influence on the (lack) of results could be the perception of the brand in the video-ads of this experiment. The decision was made to use a well-known brand. But next to the fact that the World Wildlife Fund is very well-known, it is also a charity brand. Looking at the scores of the attitude toward the brand in the video-ad (WWF), it is striking that the scores were very high, regardless of the length of the ad, the control over the ad or a combination of the two. It could be that the use of such a well known charity brand mediated the results. On the other hand, it could also be that the length and control are not such important factors in determining perceived intrusiveness of a pre-roll video-ad and attitudes towards that ad and the brand in the ad. Maybe it is rather the emotional appeal of the content of the video-ad and its congruence with the final video that influences this.

Experiment 2 studied the effects of the content of the video-ad by manipulating the emotional appeal of the video-ad (high vs. low) and the overlap between the video-ad and the final video (with overlap vs. no overlap). Two different video-ads were used: the WWF video-ad from experiment 1 and a soccer ad by Adidas. Both ads were adapted to be exactly...
30 seconds long. In a pretest it was measured that the emotional appeal of the WWF video-ad was significantly higher than that of the Adidas video-ad. The final video the respondents were to see was a summary of a soccer match between the Netherlands and Turkey (like in experiment 1) or nature footage from the African savanna. The combination of the video-ads and the final videos manipulated whether there was congruency. Like experiment 1, the respondents received an assignment to watch the video of the soccer match or footage from a nature video, unknowing that they would be confronted with a pre-roll video-ad first.

The results show large influences of the difference in emotional appeal. When the emotional appeal of the video-ad was higher (the WWF-ad), the perception of intrusiveness was significantly lower, the attitude toward the ad was significantly more positive and the attitude toward the brand was marginally significantly more positive. The manipulation of overlap only showed a main effect on the perceived intrusiveness. When there was overlap between the video-ad and the final video, the perceived intrusiveness was significantly lower. Also an interaction effect was found for the emotional appeal of the video-ad and overlap between the ad and the final video. When the emotional appeal of the video-ad is low, the attitude toward the video-ad is more positive when there is overlap.

For the overlap manipulation, as the discussed theory suggests, consumers find more value in an ad when it fits their category schemas and is somewhat in line with what they were initially looking for. The acceptance of a pre-roll video-ad might be better when it is congruent with expectations and therefore the perceived intrusiveness of that ad declines. The discussion about the results of emotional appeal is however influenced by a limitation of experiment 2. After analyzing the results, it became clear that the manipulation in the actual experiment was not successful. The respondents experienced no difference between the emotional appeal of the two pre-roll video-ads. The decision could have been to exclude further results due to this failure. However, when analyzing the effects on the dependent variables, it became clear that there were large differences between the two. The intrusiveness, attitude toward the ad and the attitude toward the brand were all better for the WWF video-ad. Where this effect comes from is unclear. It might be that the scale that was used did not measure the emotional appeal correctly after all. Another explanation could be that the measurement of the emotional appeal in the pretest was questioned exclusively, without other questions. In the actual experiment this measurement was part of a large questionnaire with much more questions. This could have influenced the respondents not to critically review their experience of the video-ads. Nonetheless, there is still a difference in
result between the two video-ads. It remains a case of guessing to what could have created this.

4.1. Limitations, future research and managerial implications

At first the limitations of this research deserve attention, also because these limitations show possibilities for future research on video-advertising. For the first experiment no large effects were found in manipulating the length and control of the video-ad. This could have been influenced by the choice of the WWF, a charity brand, in the pre-roll video-ads. It could be hypothesized that respondents have such a positive attitude toward this brand that they are not influenced by the length of a video-ad or whether they can click it away or not. Another limitation was the apparent failure of the manipulation of emotional appeal in experiment 2 which makes it difficult to draw conclusions about the results. Next to these obvious limitations, ideas for future research also show that there are more possibilities for video-ad research that have not been used in the current study.

When positioning the current study in the field of online advertising research, it is clear that this research is relatively new and much more work has to be done on this subject. The scarcity of video-advertising research could be because video-advertising is only recently experiencing a large growth. Also earlier research on comparable online advertising formats may have been perceived as sufficient to group video-advertising under. With this research it has been shown that the theoretical basis from earlier online advertising research gives enough backing to make the step to video-advertising research. However, the experiments performed in this research only covered four variables of video-ads and the effect are only measured on four dependent variables. There are numerous different variables that can be researched and also the variables used in this study can be altered.

In this study only three different lengths of pre-roll video-ads were used (15- or 60 seconds in experiment 1 and 30 seconds in experiment 2). In future research these lengths can obviously be altered, also in comparison to the final video the respondents will see. In this way it can be studied what the best ratio is between the length of the video-ad and the final video is. Secondly, in the current study the control over the pre-roll video-ad is manipulated by presenting the ad with or without a skip button. However, giving a consumer control over a video-ad does not necessarily mean that more control is actually experienced. In future research the perceived control can also be measured and serve as a mediator variable. The use of a well-known charity brand (WWF) in this study is also discussed. In future research the differences between profit and non-profit companies or well-known and unknown brands can
be studied. And studying different companies and brands also influences the choice of the dependent variables. For a commercial brand it might be interesting to measure the purchase intention for a product, while for a charity brand the attitude toward giving to charity or the attitude toward the act of helping others is of more relevance to measure. Another suggestion for future research is studying the effect that the final video has on the perception of the video-ad. In this study the respondents were instructed to watch a specific video. However, in real life respondents browse the internet and have a free choice as to what kind of video they want to see. When the respondents have no free choice this might also influence the results. Finally, this research aimed specifically at pre-roll video-ad because this is currently the most used form a video-advertising. However, the use of mid- and post-roll video-ad is also growing which gives possibilities for much more research.

Important to note is that this study is an introduction into researching a new online advertising format and practically no other research is found. With this opportunity also comes the limitation as to narrowing the scope of a research. Nonetheless, it does provide ground for future research on video-advertising effectiveness that has great potential to be applied in actual marketing communications.

For the application of the results of the current study it is advised to realize the situation that consumers are in when confronted with a video-ad. Consumers perceive online ads as more intrusive than other media ads and should be treated as such. When a company decides to use video-advertising, they should be aware of the effect that this potentially intrusive ad has on aspects like aggravation, ad-avoidance, attitudes etcetera, because ultimately this influences consumer behavior.

The first point of attention is the length of the video-ad. When the ad is too short, a company might miss the opportunity to communicate its message. On the other, a video-ad that is too long could raise intrusiveness. As suggested for a subject of future research, the length of a video-ad should be in proportion with the final video, regardless of the company or product in the video-ad. Furthermore giving a consumer control over the video-ad seems to be a smart choice. Although a consumer loses control over the situation when confronted with a video-ad, a skip-button might reduce this experience. Consumers would want to reestablish their control and feel intruded. A skip-button might suppress this urge and thus more opportunity to communicate the message remains and the sense of intrusion drops.

Regarding the emotional appeal of a video-ad, it is a smart decision to pursue a more positive emotional appeal in a video-ad because this passes on to the company-, brand- or
product related issues. As also mentioned in the suggestions for future research, the goal of a company should be taken into account here. A commercial company would want to create a positive emotional appeal for their brand, but also wants to sell a product. So next to the emotional appeal, attention should be given to information about a product. For a charitable company, the company in itself is their “product”, so there is more necessity for a positive emotional appeal and less for an informational appeal. In combination, the overlap between the video-ad and the final video should be considered here as well. When a video-ad does not have a very positive emotional appeal, creating overlap between this ad and the final video creates a better attitude toward the ad. Using overlap seems to be an adequate choice, but this should not be abused or over-used as consumers might find this affecting their privacy.

It is advised that before using this specific form of advertising (as with any other advertising form) to do extensive pretesting of the possible applications and goals. Make sure to keep in mind the position that a consumer is in, so that the positive effects can be maximized and the negative effects brought to a minimum.
5. Literature


Morimoto, M., & Chang, S. (2006). Consumers' attitudes toward unsolicited commercial e-mail and postal direct mail marketing methods: Intrusiveness, perceived loss of control, and irritation. *Journal of Interactive Advertising, 7*(1), 8-20


Rettie, R. (2001). An exploration of flow during Internet use. Internet Research, 11(2), 103-113


Appendix 1: Introductory text

LET OP:
Voor het correct invullen van deze enquête wordt het gebruik van Internet Explorer óf Mozilla Firefox aangeraden. U kunt deze browsers gratis downloaden: Mozilla Firefox of Internet Explorer.
Het kan voorkomen dat u bij Internet Explorer een Security Warning krijgt bij het bekijken van het filmpje, kies in dat geval voor de optie "no"/"nee" of "show all content" om de video te laden.

Het gebruik van andere webbrowsers zoals Safari en Google Chrome wordt afgeraden.

Geachte respondent,

Vanuit mijn master Marketingcommunicatie voer ik namens de Universiteit Twente een onderzoek uit naar het kijken van filmpjes op het internet.

Voorafgaand aan deze enquête krijgt u een opdracht te lezen. Wanneer u deze opdracht uitvoert, krijgt u een filmpje te zien waarna u de enquête in kunt vullen.

De enquête bestaat uit verschillende stellingen waarover u uw mening kunt geven. Het gaat bij deze stellingen om uw persoonlijke mening of ervaringen, er zijn dus geen goede of foute antwoorden.

Het invullen van de enquête zal minder dan tien minuten in beslag nemen.

Deelname aan dit onderzoek is uiteraard anoniem en alle gegevens zullen vertrouwelijk behandeld worden. Hartelijk dank voor uw medewerking!

Met vriendelijke groet,

Daniël Kusse
Appendix 2: Questionnaire experiment 1

1.

Heeft u de video-advertentie van het WWF voorafgaand aan het filmpje gezien? (Hiermee wordt bedoeld of u gezien heeft dat er een video-advertentie aan het filmpje voorafgaat, u hoeft deze dus niet volledig afgekeken te hebben om "ja" te antwoorden!)*

☐ Ja
☐ Nee

Only questionned in conditions 1 and 2 where skipping was possible

2.

Heeft u de video-advertentie van het WWF overgeslagen door op "skip this ad" te drukken, of heeft u de advertentie in zijn geheel afgekeken? *

☐ Ik heb de video-advertentie volledig afgekeken
☐ Ik heb de video-advertentie weggeklikt

3.

Toen ik de video-advertentie van het WWF te zien kreeg, vond ik deze:

Afleidend  helemaal mee oneens  helemaal mee eens

☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
4.

Geef op de volgende schaal aan waar uw mening over de video-advertentie zich bevindt.

**Ik vind de video-advertentie:**

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<th>Slecht</th>
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<td>Gunstig</td>
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5.

**Ik vind het merk WWF:**
6. Wat is uw geslacht?

☐ Man
☐ Vrouw

7. Wat is uw leeftijd?


8. Wat is uw hoogst afgemane opleiding?

☐ Basisonderwijs / Lager Onderwijs
☐ LBO
☐ VMBO / MAVO / MULO
☐ HAVO
9.

**Hoe vaak bekijkt u filmpjes op het internet?**

- [ ] Zelden
- [ ] 1 – 3 per jaar
- [ ] 1 – 3 per maand
- [ ] 1 – 3 per week
- [ ] Dagelijks
Appendix 3: Questionnaire experiment 2

Heeft u de video-advertentie van Adidas/het WWF voorafgaand aan het filmpje gezien?
(Hiermee wordt bedoeld of u gezien heeft dat er een video-advertentie aan het filmpje voorafgaat, u hoeft deze dus niet volledig afgekeken te hebben om "ja" te antwoorden!) *

☐ Ja
☐ Nee

2.

Geef op de volgende schaal aan welk gevoel u kreeg bij het zien van de video-advertentie:

Verdrietig ☐ ☐ ☐ ☐ ☐ ☐ ☐ Vrolijk
Onaangenaam ☐ ☐ ☐ ☐ ☐ ☐ Aangenaam

3.

Geef op de volgende schaal aan wat u vond van de overeenstemming tussen de video-advertentie en het filmpje dat u heeft gezien.

Ik vond de gelijkenis tussen de video-advertentie en het filmpje dat ik heb gezien:
4. Toen ik de video-advertentie van Adidas/het WWF te zien kreeg, vond ik deze:

<table>
<thead>
<tr>
<th>Afleidend</th>
<th>helemaal mee oneens</th>
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</table>

5.
Geef op de volgende schaal aan waar uw mening over de video-advertentie zich bevindt.

Ik vind de video-advertentie:

Slecht ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ Goed
Onaangenaam ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ Aangenaam
Ongunstig ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ Gunstig

[Ga verder]

6.

Ik vind het merk Adidas/ WWF:

Slecht ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ Goed
Onaangenaam ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ Aangenaam
Ongunstig ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ Gunstig

6.

Wat is uw geslacht?

☐ Man
☐ Vrouw
7. **Wat is uw leeftijd?**

8. **Wat is uw hoogst afgerechte opleiding?**

- Basisonderwijs / Lager Onderwijs
- LBO
- VMBO / MAVO / MULO
- HAVO
- VWO / Gymnasium / Atheneum / HBS
- MBO
- HBO
- WO / Universiteit

9. **Hoe vaak bekijkt u filmpjes op het internet?**

- Zelden
- 1 – 3 per jaar
- 1 – 3 per maand
- 1 – 3 per week
- Dagelijks