The Value of Time and Banner Ad Click-through

Euijin Ahn
Yeungnam University

Steven Edwards
Michigan State University

Prepared for the 2002 International Communication Association Conference

November 1, 2001
The Value of Time and Banner Ad Click-through

ABSTRACT

The paper reports on if and when banner ad affects click-through. Two 2 x 2 between-subjects factorial designs employing 121 student participants were used to test specific hypotheses. In Study 1, the factors are speed of modem connection (fast vs. slow) and involvement (high vs. low). In Study 2, the factors are time for task (rush vs. no rush) and involvement (high vs. low). This study found that involvement and connection speed affected click-through, but they did so additively. Implications for web advertisers are discussed.
The Value of Time and Banner Ad Click-through

The death of the ubiquitous banner ad may have been overstated. Even with the recent turbulence surrounding e-businesses, advertising expenditures on the World Wide Web have climbed to $8.2 billion in less than seven years (IAB 2001). It appears that companies still view the web as a viable advertising medium. In particular, the banner generates the greatest online advertising revenues, accounting for over 48% in 2000. However, given that banners have become so commonplace and click-through rates have fallen to under .5% (Rossiter and Bellman 1999), an understanding of why consumers fail to click-through is needed.

Both industry researchers and scholars note that waiting time is a significant barrier to the future success of the Internet as a commercial medium. The literature on service evaluation suggests a negative relationship between waiting time and service quality evaluations (Katz, Larson, & Larson, 1991; Taylor, 1994). Within a computer-based context, it has been shown that system response time is negatively related to computer user satisfaction (Schleifer & Amick, 1989).

It is expected that this waiting time also affect viewers’ click-through on banner ads. Waiting time during Web surfing can be defined as the download time needed before surfers can process requested information. Because time is considered by many to be a scarce resource (Leclerc, Schmitt, & Dubé, 1995), waiting time in the Web process may also imply a resource investment (or additional cost) to viewers. Understanding perceptions of these costs may help explain whether consumers are willing to click-through banner ads.

Banner Advertising

Banner ads are generally hyperlinked to an advertiser’s website (Hoffman, Novak, and Chatterjee 1995) and have been defined by Ellsworth and Ellsworth (1997) as, “small graphic buttons or images containing tempting information, inviting users to click for more information”
Since AT&T first advertised on HotWired.com in 1994 (Zeff and Aronson 1999), there has been tremendous growth in the use of banner ads. In 2000, banner ad revenue ($3.8 billion) surpassed outdoor ad revenue ($1.8 billion), and is quickly approaching the $4.8 billion spent in business newspapers (IAB 2001).

Even with this predominant status, banner ads have been criticized for declining click through rates. Considering that banners had been generating click through rates around 25% when first introduced, it seems that web viewers are no longer as motivated or as curious as they once were about banner ads (Gimein 1999). This phenomenon may be a dilemma for web advertisers (e.g., online retailers) who had placed great importance on the banner as a means of generating site traffic.

However, Briggs and Hollis (1997) argue that banner ads can also be effective in building brands. They reported that a single exposure to a banner produces up to a 50% increase in consumer loyalty and as high as a 200% increase in brand awareness. Savitz (1999) warns that the effectiveness of banner ads to build brands might be limited, because advertisers of low involvement products such as soft drinks, toothpaste, and laundry detergent will have a hard time differentiating their brands from the competition by relying on small rectangular boxes. Therefore, Savitz (1999) argues that, “banner ads make more sense for advertisers seeking an immediate response-an online purchase or registration-than for brand advertising.”

From the currently available research, banner ads seem to have problems with both click-through and brand building. To overcome these problems, banner advertisers have been experimenting with various techniques for displaying banner ads using advanced rich media technology. For example, Microsoft recently introduced “enRiched,” a company that has created banner ads that allow for increased information display without leaving the current page. This technology allows users to “mouse-over” the banner and reveal new information, or use the
cursor to expand the size of the banner on top of the current page (enRiched Media 2001). These techniques do not open a new window, and do not request new information. That means there is no download time and thus no waiting time for consumers.

**Brand Building Versus Click-through**

Banner ads are conceptually similar to direct response advertising using traditional media. According to Rossiter and Percy (1997), direct response advertising calls for “immediate behavioral action and is directed at a relatively narrow target audience” (p. 439). If banner advertising is conceptualized as a form of direct response, then we can consider the goal as click-through. However, Rossiter and Percy also suggest that direct response advertising requires a narrowly defined target audience, because list quality accounts for 40% of direct mail effectiveness. This requirement distinguishes banner advertising from other forms of direct response advertising, as most banners are posted on search engines or other popular sites without sophisticated methods of targeting (The Economist 1999). So as currently practiced, banner ads serve double duty, seeking to enhance company or brand attitudes, as well as to induce a direct response (Rossiter and Percy). However, as both attitude shift (brand building) and click-through (direct response) effects as described by Harvey (1997) can be seen in response to banner ads, one has to wonder why there is such a weak relationship between advertising exposure and click-through.

To answer this question, we must first understand the relationship between attitude and behavior. For advertisements in traditional media, it may be reasonable to expect a strong relationship between brand attitude and purchase behavior. Thus, if an advertisement can create a favorable brand attitude, it is likely to increase attitude toward purchase and purchase behavior. For banner advertising, however, click-through is an action requiring an immediate response. When faced with traditional ads, purchase of the brand generally occurs with a time delay.
However, click-through must occur immediately. For example, a viewer may believe that “the NextCard Visa advertised by a banner ad is a low-APR credit card” whereas she may also believe that “clicking the banner ad for NextCard will interrupt web surfing.” Viewers may have a compelling motivation to process web materials which might suppress their immediate responses to banner ads. As Fishbein and Ajzen (1975) argue, an explanation for a person’s behavior may differ from the reasons she has a particular attitude toward the target. Particularly, this conceptual framework might explain why viewers do not click banner ads even when faced with persuasive banner ads that elicit favorable attitudes.

**Banner Ads, Involvement, and Click-through**

The relationship between attitude formation and behavior when faced with banner ads may be moderated by the degree to which people are involved with their activity while online. Involvement is particularly relevant to the effectiveness of brand building and click through behavior, as: (1) involvement has been found to moderate the effects of various advertising executional cues (Petty, Cacioppo, and Schumann 1983), and (2) involvement itself is reported to explain up to 80% of the variance in advertising recall (Ducoffe 1996). Further, consumers have been found to process advertising messages differently when involved to different degrees. Thus involvement can be used to explain why and when banner ads are an effective indicator of attitude change and click-through behavior.

The heuristic-systematic model (HSM) assumes “that the primary processing goal of accuracy-motivated recipients is to assess the validity of persuasive messages, and that there are two mediational paths to persuasion” (Eagly and Chaiken 1993, p. 326). Chaiken and her colleagues (1989) define systematic processing as a logical, analytical, and comprehensive processing of information to gain accurate attitudes whereas heuristic processing is “a more limited mode of information processing that requires less cognitive effort and fewer cognitive
resources than systematic processing” (Eagly and Chaiken 1993, p. 327). The HSM provides a useful theoretical framework in which to examine when banner ads affect click-through.

Industry studies that report much of the research on banner advertising is difficult to assess due to their focus on results and recommendations without reporting the methods and analyses. However, a few studies are found in the academic literature that report on the effectiveness of banner advertising. Most of the research focused on click-through behavior as the major dependent variable. Although brand building is another important aspect of banner advertising as a criterion of the industry evaluation of banner ads (see an example at http://www.adrelevance.com), 6 of 7 academic studies examined the effectiveness of banner advertising using only click-through (see Table 2 for a review).

Interestingly, several studies (Cho 1999; Dahlén 2000; Daugherty 2000) consistently found a main effect of product involvement on click-through behavior. The studies concluded that banner ads for high involvement products were clicked more than banner ads for low involvement products. According to the HSM, people are motivated to assess message validity or to have a correct attitude when they process a persuasive message. Thus, people continue to invest whatever amount of effort is required to attain a sufficiently confident assessment of message validity. Sufficient confidence is achieved when people’s actual confidence equals or exceeds a sufficiency threshold, which is a desired amount of judgmental confidence (see Eagly and Chaiken 1993).

In order to meet a high sufficiency threshold, highly involved viewers might be more motivated to invest their resources, and might be more likely to click banner ads compared with less involved viewers. Because click-through brings more information, which in turn requires further cognitive effort, less involved viewers would not be motivated to click banner ads as they do not need more information about the brand. Consequently:
H1: Viewers are more likely to click banner ads when they are in high involvement conditions than when they are in low involvement conditions.

Highly involved viewers might be motivated to click banner ads due to their increased need for confidence. However, click-through generally requires viewers’ time (i.e., waiting time to download material and processing time of the downloaded material) and cognitive effort to process the downloaded material. The relative value of time resources is likely to affect click-through behavior on banner ads. For example, viewers may have slow Internet connections and therefore perceive greater costs in click-through than people with faster connections. An alternative conceptualization of time costs may be related to situational variables. Viewers who have enough time to complete their online task are not likely to perceive time as a significant resource and feel no need to rush. On the other hand, when the time for an assigned Web task is limited, viewers may feel rushed and place a premium on time as a resource. For each condition, a relative time value might vary remarkably. Regardless of the conceptualization of time pressure, clicking on a banner ad may be an economical or psychological investment that viewers are just not willing to make.

H2: Viewers who perceive the cost of clicking as high (i.e., slow speed of modem connection or completing a task when rushed) should be less likely to click on banner ads, than those who do not perceive the cost as high.

Method

Design and Participants

Two experiments were conducted to test the two conceptualizations of waiting time described in the literature review. The experiments used 2 x 2 between-subjects factorial designs. The design of the first study consisted of 2 factors: waiting time (long vs. short) and involvement (high vs. low). The design of the second study consisted of 2 factors: Perceived waiting time
(rush vs. no rush) and involvement (high vs. low). A total 121 students participated in the experiments on a voluntary basis.

**Procedure, Stimuli, and Manipulation**

Participants were assigned randomly to a computer, and instructed to read the screen. The first page varied depending on whether they were in the high or low involvement group (see Involvement Induction section below). Next, subjects were instructed to click the Web page to see a second page designed to induce a normal viewing environment (MacInnis and Park 1991). There, participants were instructed to read all the content on a site built for the experiment titled PsychWeb 2001, and were told that they could scroll or click when they wanted to do so.

After they read the second page, they were asked to click the mouse to begin the session. The web site dealt with how people judge the attractiveness of human faces. The content was designed to attract viewers’ attention and interest to simulate web surfing behavior. When finished, an instruction page popped up guiding them to respond to a print questionnaire.

**Banner Ad for Study 1 & 2**

At the PsychWeb site, viewers had the opportunity to click on a banner ad that was created for the experiment. A test banner ad for a fictitious brand of sunglasses was professionally prepared. Sunglasses were selected for the study because it was salient for student consumers. Similar to most banner ads in reality, each test banner ad had 5 elements (i.e., product picture, company logo, brand name, body copy, and call-to-action message). The size of the banner ad was 336 by 280 pixels and was executed on a red background (see Appendix A).

**Study 1 Manipulation of Slow vs. Fast Internet Connection**

Given the importance of maintaining precise control over waiting time, a professional Web designer developed a personal Web site. The delivery speed of information was altered
using the Adobe Photoshop™ software package. Because it is technically difficult to vary
modem speed of the computers in the computer lab, speed of connection was defined by the
number of invisible (i.e., a transparent color that viewers cannot actually recognize) snow balls
designed to activate the experimental web pages. The average file size of the fast connection
condition was 6,784 bytes (i.e., the connection speed of a cable modem: the speed of data going
through the cable modem is about 100 times faster than in a standard 56K computer) whereas the
size of the slow connection condition was 10,647 bytes (i.e., the average waiting time of the
three web pages was around 14 seconds to download). Simply put, the large file web page loads
more slowly simulating a slower modem speed, but is otherwise identical to the small file web
page. Half of the participants were assigned to the fast connection conditions, and the other half
to the slow connection conditions.

**Study 2 Manipulation of Rush vs. No Rush Condition**

The time for task was varied by different instructions during the participants’ processing
of the Web site. To induce the rush conditions, the following two instructions were inserted
between the Web pages:

- Between the first page and the second page of the experimental Web site.
  *Sorry to interrupt your Web viewing. Your processing speed is somewhat slower than
   the average speed of other students. Your reading speed is a very important factor in
   this study. Can you please try to read more quickly.*

- Between the second page and the third (last) page of the Web site.
  *Sorry again! Your Web processing is still slow compared the average of other students.
   Please try to read more quickly.*

To induce the no-rush conditions, the instructions read:

- Between the first page and the second page of the Web site.
  *Sorry to interrupt your Web viewing. Your processing speed is somewhat faster than
   the average speed of other students. Your reading speed is a very important factor in
   this study. Please take your time and read more carefully.*

- Between the second page and the third (last) page of the Web site.
Involvement Induction

Involvement was varied by outcome-relevance instructions because “they make salient to message recipients the relevance of an issue to their currently important goals or outcomes (Johnson and Eagly 1989, p. 292).” First of all, participants were told that the purpose of the experiment was to obtain their responses to a new brand of sunglasses. However, to induce high involvement, half of the participants were told that: (1) the sunglasses will be introduced during the summer to the local area, (2) according to Consumer Reports, there are substantial differences in quality and style among leading brands of sunglasses (see Park and Young 1986), and (3) Their responses to the brand would provide critical information to the marketer and researchers. Participants in this high involvement condition were also informed they would make a choice between $1 cash payment as compensation for participation, or a chance to win the advertised sunglasses.

For the low involvement condition, participants were told that: (1) the sunglasses would be introduced next year in a different region of the country, (2) according to Consumer Reports, there are few differences in quality among leading brands of sunglasses, and (3) They would be given a chance to be selected as a winner of one of three $10 cash gifts among three hundred participants.

The banner ad for the sunglasses was expected to be more personally relevant to participants who anticipated that they could immediately purchase the brand. Also, involvement was expected to be high (or low) when emphasizing critical differences (or no differences) among leading brands of sunglasses (Park and Young 1986). In addition, the sunglasses ad was expected to be more personally relevant to participants who anticipated making a choice if they
received either the cash or the product than to those expecting to receive only a low probability chance to win a small cash gift (see Celsi and Olson 1988; Miniard, Bhatla, Lord, Dickson, and Unnava 1991; Petty, Cacioppo, and Schumann 1983). A pretest using 30 students confirmed that the involvement induction worked as intended ($t_{(28)}=2.40$, $p=.023$).

**Dependent Measures**

*Click-through* was measured by differentiating ID numbers that were self-reported on the print questionnaire. If the participant clicked on the concluding text, a new web page opened up with the assigned ID number. If the participant instead clicked on the banner ad, a page opened assigning a different ID number. *Involvement* was measured to check if the induction worked. As high-involvement viewers should attend to a banner ad more than low-involvement viewers (MacInnis and Park 1991), involvement is assessed by a two-item scale that asked whether they paid not much (1) or very much (7) attention to the banner ad and whether they concentrated very little (1) or very hard (7). Finally, *Demographic and Use Variables* were measured such as: age, gender, Internet-surfing hours, web content involvement, perceived mouse functionality, perceived modem speed, and product familiarity.

**Results**

Data from study 1 (n=61) and study 2 (n=60) revealed that participants consisted of 37% and 35% males and 62% and 65% females, respectively. The ages ranged from 18 to 31 years old ($M = 20.08$) in study 1 and from 18 to 24 years old ($M = 20.55$) in study 2. Confirmatory factor analyses were performed to assess the uni-dimensionality of each scale. The data were fitted with the posited four-construct model (i.e., web involvement, banner ad involvement, product knowledge, and mouse functionality). Inspection of the factor loadings and errors produced from the discrepancy between the obtained and predicted correlations resulted in the exclusion of no items.
For all participants, an average-scale score on each construct was computed. Web involvement was represented by three items. The mean score was 4.51 (SD =1.30) and 4.51 (SD =1.30). The reliability of this scale was assessed using coefficient alpha, and was $\alpha = .80$ and .86. Banner ad involvement was measured by two items. The mean scale score was 2.88 (SD =1.55) and 3.10 (SD =1.74) with a reliability of $\alpha = .96$ and .93. Product knowledge was measured with two items. The mean scale score was 3.63 (SD =1.55) and 3.68 (SD =1.63) with a reliability of $\alpha = .86$ and .90. Mouse functionality also was measured with two items. The mean scale score was 4.36 (SD =1.99) and 4.71 (SD =1.85) with a reliability of $\alpha = .77$ and .70.

Each of four scales formed uni-dimensional solutions in which both checks for internal consistency and parallelism yielded trivial errors. The other scales--perceived connection speed ($M=5.41 \& 5.52$), and average web surfing hours ($M=2.18 \& 2.77$)--were represented by a single item.

**Manipulation Checks**

T-tests suggested that the involvement inductions were successful in both studies, $t_{(59)}=2.75$, $r=.34$, $p<.01$ in study 1 and $t_{(59)}=2.27$, $r=.29$, $p<.05$ in study 2. The results revealed that high involvement participants paid more attention and concentration to the banner ad ($M=3.38$ and 3.60) than did low involvement participants ($M=2.35$ and 2.63).

A manipulation check for study 1 also showed that the participants assigned to the fast modem speed conditions perceived a faster connection speed ($M=6.00$) than those assigned to the slow modem speed conditions ($M=4.88$), $t_{(59)}=3.67$, $r=.43$, $p<.001$.

A manipulation check for study 2 also showed that the participants who were assigned to the rush conditions perceived faster reading speed ($M=5.31$) than those who were assigned to the no-rush conditions ($M=2.79$), $t_{(58)}=6.29$, $r=.64$, $p<.001$. 


Two-way ANOVAs were used to assess differences among the treatment groups in the two studies on the control variables. No differences were found in either study one or two, p>.05.

**Test of Hypotheses - Study 1**

The hypotheses were tested using ANOVA to look for differences between the waiting time and involvement groups on click-through behavior. It was expected that greater involvement would lead to greater click-through, while greater waiting time would lead to less click-through.

Table 2 shows no interaction effect on click-through between involvement (high vs. low) and modem speed (long waiting vs. short waiting time for downloading). A two-way independent groups analysis of variance also revealed no interaction effect (F(1,60)=.45, p>.10).

Because there was no interaction, a chi-square analysis was performed to assess the relationship between involvement and click-through (see Table 3). There is a substantial effect for involvement, $\chi^2(1, n=61)=6.78, p<.05$. The odds of someone clicking through in the high involvement conditions is 5.68 times that of the odds of someone clicking through in the low involvement conditions. There is also a substantial effect for waiting time, $\chi^2(1, N=61)=5.31, r=.29$ (see Table 4). The odds of someone clicking through when the waiting time is short are 4.28 times greater than the odds of someone clicking through when the waiting time is long. Therefore, there was support for hypotheses one and two.

**Test of Hypotheses - Study 2**

An identical series of analyses was conducted for the second study. The hypotheses were tested using ANOVA to look for differences between perceived waiting time and involvement groups on click-through behavior. It was expected that greater involvement would lead to greater click-through, while greater task urgency would lead to less click-through.
Table 5 shows no interaction effect on click-through of involvement (high vs. low) and time for task (rush vs. no-rush). A two-way independent groups analysis of variance also revealed no interaction effect, $F_{(1,59)} <.01$, $p >.10$.

Because there is no interaction, a chi-square analysis was performed to examine the relationship between involvement and click-through (see Table 6). There is a substantial effect for involvement, $\chi^2(1, N=60)=4.71$, $r=.28$. The odds of someone clicking through in the high involvement conditions is 3.44 times that of the odds of someone clicking through in the low involvement conditions. There is no significant effect for time under rush conditions ($\chi^2(1, N=60) = .28$, $p>.10$, $r=.07$) (see Table 7). In sum, the data are consistent with hypothesis one, but not two or three. Only involvement affected click-through.

**Discussion**

Consistent with previous studies (Cho 1999; Dahlén 2000; Daugherty 2000), participants in study one and study two were more likely to click banner ads when they were in high involvement conditions than when they were in low involvement conditions. The findings from study one also support literature that suggests waiting time affects viewers’ surfing behavior (Dellaert & Kahn, 1999; Weinberg, 2000). In the context of banner advertising, study one provided evidence that viewers are more likely to click through banner ads when they are in short waiting time conditions than when they are in long waiting time conditions. However, study two did not reveal similar findings. There were no differences between rush and no-rush conditions in click-through behavior. Therefore we have mixed results.

One may raise a question, “why are viewers averse to waiting for a few seconds in their Web surfing process?” A time cost of downloading may not be a big waste in terms of the absolute time spent. One click-through may take only a few seconds. In addition, waiting time does not demand any cognitive effort from viewers. Compared with waiting time in off-line
service process (e.g., waiting time for riding an airplane), it might be a minimal time cost. However, it seems that waiting time in Web environments is treated with greater importance than that in off-line service process. Interestingly, waiting time in the Web surfing process may require something more than the actual time cost to viewers.

Understanding what that something else is, remains to be discovered. That is why further research is needed on the ubiquitous banner ad. Some experts have claimed banner ads do not work (e.g., click-through is .05%), however, if a lesson, or a strategy for future development of web ad technology exists, it may be learned from our previous failures. If we understand why most people do not click banner ads, then we gain valuable insight for future web ad development. Also, Web advertising technology has shown remarkable speed in its development. As a result, many academicians and practitioners in the web-advertising field seem to be interested in new technologies and their practical applications. However, few have raised questions of the conceptual issues of why some advertising techniques do (or do not) work in the new medium. To fill a void in the research literature, and to establish a strong theoretical foundation, studies questioning conceptual issues are essential to advertising research.

One interesting trend in web advertising research is that most studies investigate a direct relationship between stimulus (ad technique) and behavioral response (click-through) without examining intervening hypothetical constructs, e.g., brand attitude and click-through attitude. This is because the new advertising medium provides easy-to-use online tracking software, and click-through is a critical concern for web advertisers. However, to have a rich understanding of the phenomenon of web ad processing, researchers need to investigate the attitude construct “which has been postulated to motivate behavior and to exert selective effects at various stages of information processing” (Eagley & Chaiken, 1993, p.1). In particular, the attitude toward click-through may be a key construct to understand why people click or not click. The
conceptual base is derived from the idea of Fishbein and Ajzen; actions can be explained via attitude toward the actions rather than attitude toward targets. The findings in this study also emphasize the importance of attitude toward behavior (i.e., click-through attitude).

The findings of a waiting time effect on click-through in these studies explain one aspect of interactive technology applications in web advertising. Recent developments of rich media technology help viewers to save downloading or extra time effort (e.g., a drop-down menu or direct links to a specific page, not a initial home page). In addition, the technology lets viewers interact with banner ads without ever having to leave their current site (e.g., see examples at http://www.enliven.com). The greatest strength of these rich media banners may be to lessen viewers’ processing efforts on banner ads as well as to provide rich information.

To extend the scope of this study’s findings, future research needs to employ diverse types of products, banner shapes, and banner ad positions. Because this study used only one product, one shape and one position of banners as the stimulus, the findings are limited to the product, shape and position tested.
References


### Table 1

**Studies on the Effectiveness of Banner Ad**

<table>
<thead>
<tr>
<th>Authors</th>
<th>Indep. Variables</th>
<th>Methods</th>
<th>Sample</th>
<th>Dependent Variables</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Briggs &amp; Hollis (1997)</td>
<td>Ad exposure -one exposure vs. controlled</td>
<td>Field experiment</td>
<td>1,232</td>
<td>Brand- awareness</td>
<td>Ad exposure awareness: positive loyalty: positive</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Consumer-loyalty</td>
<td></td>
</tr>
<tr>
<td>Li (1998)</td>
<td>Animation -dynamic vs. still</td>
<td>Field experiment</td>
<td>-</td>
<td>CTR</td>
<td>Animation n.s.</td>
</tr>
<tr>
<td></td>
<td>Size -large vs. small</td>
<td></td>
<td></td>
<td></td>
<td>Size n.s.</td>
</tr>
<tr>
<td></td>
<td>Incentive offer -incentive vs. no</td>
<td></td>
<td></td>
<td></td>
<td>Incentive offer sig.</td>
</tr>
<tr>
<td>Li &amp; Bukovac (1999)</td>
<td>Animation -animated vs. still</td>
<td>Lab experiment</td>
<td>224 students</td>
<td>Brand recall</td>
<td>Animation recall, reaction: sig.</td>
</tr>
<tr>
<td></td>
<td>Size -large vs. small</td>
<td></td>
<td></td>
<td>Response time</td>
<td>Size reaction, CTR: sig.</td>
</tr>
<tr>
<td></td>
<td>Search mode -surfer vs. seeker</td>
<td></td>
<td></td>
<td>CTR</td>
<td>Search mode recall, CTR: n.s.</td>
</tr>
<tr>
<td></td>
<td>Size -large vs. small</td>
<td></td>
<td></td>
<td>Ad likability</td>
<td>Relevance: sig.</td>
</tr>
<tr>
<td></td>
<td>Relevance -relevant vs. no</td>
<td></td>
<td></td>
<td></td>
<td>Involvement: sig.</td>
</tr>
<tr>
<td>Daugherty (2000)</td>
<td>Ad type -direct response vs. image ad</td>
<td>Lab experiment</td>
<td>120 students</td>
<td>Intention-to-click</td>
<td>Ad type &amp; Invol.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Ad likability</td>
<td>intention: sig.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>liking: sig.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Inv. x Ad type intention: sig. liking: n.s.</td>
</tr>
<tr>
<td>Cho &amp; Leckenby (2000)</td>
<td>Size -large vs. small</td>
<td>Field experiment</td>
<td>817</td>
<td>CTR</td>
<td>Size &amp; Animation</td>
</tr>
<tr>
<td></td>
<td>Animation -animated vs. still</td>
<td></td>
<td></td>
<td></td>
<td>under LV condition sig.</td>
</tr>
<tr>
<td></td>
<td>Involvement -high vs. low</td>
<td></td>
<td></td>
<td></td>
<td>Involvement: sig.</td>
</tr>
<tr>
<td>Michael Dahlén (2000)</td>
<td>Involvement -high vs. low</td>
<td>Field experiment</td>
<td>1,753</td>
<td>CTR</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note.** CTR = click-through, LV cond. = low involvement conditions
Results for Study 1

Table 2
Click-Through Proportions

<table>
<thead>
<tr>
<th></th>
<th>High involvement</th>
<th>Low involvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fast connection speed</td>
<td>.57</td>
<td>.20</td>
</tr>
<tr>
<td>Slow connection speed</td>
<td>.23</td>
<td>.00</td>
</tr>
</tbody>
</table>

Table 3
Relationship between Involvement and Click-Through

<table>
<thead>
<tr>
<th></th>
<th>High involvement</th>
<th>Low involvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Click</td>
<td>12 (38%)</td>
<td>3 (10%)</td>
</tr>
<tr>
<td>No Click</td>
<td>19 (62%)</td>
<td>27 (90%)</td>
</tr>
<tr>
<td>Total</td>
<td>31 (100%)</td>
<td>30 (100%)</td>
</tr>
</tbody>
</table>

χ^2(1, N=61) = 6.77, p<.01, r=.33

Table 4
Relationship between Connection speed and Click-Through

<table>
<thead>
<tr>
<th></th>
<th>Fast connection</th>
<th>Slow connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Click</td>
<td>11 (38%)</td>
<td>4 (13%)</td>
</tr>
<tr>
<td>No Click</td>
<td>18 (62%)</td>
<td>28 (87%)</td>
</tr>
<tr>
<td>Total</td>
<td>29 (100%)</td>
<td>32 (100%)</td>
</tr>
</tbody>
</table>

χ^2(1, N=61) = 5.31, p<.01, r=.29
Results for Study 2

Table 5

Click-Through Proportions

<table>
<thead>
<tr>
<th></th>
<th>High involvement</th>
<th>Low involvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>No rush</td>
<td>.38</td>
<td>.13</td>
</tr>
<tr>
<td>Rush</td>
<td>.44</td>
<td>.19</td>
</tr>
</tbody>
</table>

Table 6

Relationship between Involvement and Click-Through

<table>
<thead>
<tr>
<th></th>
<th>High involvement</th>
<th>Low involvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Click</td>
<td>12 (41%)</td>
<td>5 (16%)</td>
</tr>
<tr>
<td>No Click</td>
<td>17 (59%)</td>
<td>26 (84%)</td>
</tr>
<tr>
<td>Total</td>
<td>29 (100%)</td>
<td>31 (100%)</td>
</tr>
</tbody>
</table>

$\chi^2(1, N=60)=4.71, r=.28$

Table 7

Relationship between Time for Rush and Click-Through

<table>
<thead>
<tr>
<th></th>
<th>No-rush condition</th>
<th>Rush condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Click</td>
<td>7 (25%)</td>
<td>10 (31%)</td>
</tr>
<tr>
<td>No Click</td>
<td>21 (75%)</td>
<td>22 (69%)</td>
</tr>
<tr>
<td>Total</td>
<td>28 (100%)</td>
<td>32 (100%)</td>
</tr>
</tbody>
</table>

$\chi^2(1, N=60) = .28, p>.10, r=.07$
APPENDIX A

introducing Twister!

High Performance Sunglasses for Every Water Sport!

100% UVA & UVA PROTECTION

Select your favorite lens and

- Titanium
- Metal
- Plasma
- Ruby

SISLEY