Attention to eSports advertisement : effects of ad animation and in-game dynamics on viewers' visual attention

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Abstract

ESports refers to professional video gaming that is typically broadcasted with a live commentary on TV or the Internet. Despite the rapid growth of eSports industry and its potential for a valuable advertising platform, there has not been much discussion about effective advertising strategies for the placement of virtual ads in eSports. Based on previous research, one advertisement factor (i.e., ad animation) and one in-game factor (i.e., in-game dynamics) are identified and tested in an experiment ($N = 116$) with a 2 (ad animation: static vs. animated ads) $\times 2$ (in-game dynamics: battle vs. non-battle scenes) mixed design. The results show that both ad animation and in-game dynamics have a significant impact on viewers' visual attention, in terms of fixation count and duration measured by an eye-tracking device. The results also show a significant interaction in which the impact of ad animation on fixation duration is more magnified when in-game play is less busy (i.e., non-battle scenes), compared to when it is busy (i.e. battle scenes). Theoretical implications based on the limited capacity model, as well as practical implications for practitioners are discussed.

Keywords: eSports, virtual advertisements, ad animation, in-game dynamics, eye-tracking

1. Introduction

Video games today are not just for young kids anymore. The game industry has grown exponentially over the past years so that some video games have evolved into mega sports events, similar to the Olympics or the World Cup. For example, the 2016 World Championship of a famous Multiplayer Online Battle Arena (MOBA) game, *League of Legends* (LoL), was broadcasted live in 18 languages through 23 broadcasting channels worldwide with a total of 43 million unique viewers eagerly watching the finals (Riot Games 2016). Moreover, it is estimated that there are 260 million global eSports enthusiasts overall. Among them, the number of regular viewers is expected to reach 145 million by 2017, which is close to the market size of the National Football League (NFL) in the U.S. (Newzoo 2015). This new emerging form of entertainment is called *eSports*. It refers to “a form of sports where the primary aspects of the sport are facilitated by electronic systems” (Hamari and Sjöblom 2017, 211). To put it simply, eSports can be understood as “competitive and professional (video) gaming” (Faust, Meyer, and Griffiths 2013, 67) that is typically broadcasted with a live commentary on TV or the Internet. With the popularity of eSports, it is easy to see millions of fans going crazy and hailing with acclamations whenever they see fantastic in-game plays made by pro-gamers.

Although academic understanding of and discussion on eSports may be still in its infancy (Faust et al. 2013; Hamari and Sjöblom 2017), there is a common understanding that this new form of entertainment is a “sport” and that the eSports market involves an enormous amount of money (Newzoo 2015; SuperData Research 2016). The popularity and pervasiveness of eSports make it a wonderful platform for advertising. For instance, eSports has its own fans who are not only many in number but also have decent spending power. A report by Nielsen (2015) showed that the average age of eSports fans in the U.S. was 32 and their mean total household income

reached USD 64,900. Another report (Mindshare North America 2016) similarly indicated that 43% of the total eSports fans earned more than USD 75,000 and 31% of them had an annual household income of USD 90,000 or higher. In addition, thanks to the characteristics of eSports and video games, it is relatively easy to execute various new advertising strategies such as in-game or virtual ads. In South Korea where eSports is very popular, many virtual ads have been embedded in everyday game broadcasts. For example, it is common to see an *Energizer Bunny* or *Coca-Cola Bear* doing sit-ups or waving its paw in the corners of the game broadcast screens (for examples, see <http://y2u.be/HUzAZHS6WXM>). These explain why advertising revenues account for 74.1% (USD 661 million) of the total eSports earnings (USD 892 million) in 2016 (SuperData Research 2016), and many mega sports organizations including *Paris Saint-Germain* and *Schalke 04* are trying to enter the market at this moment (Wolf 2016).

Among various forms of sports marketing strategies (e.g., sponsorship, sales of merchandise/tickets, stadium advertising), the current study focuses on virtual ads in particular because virtual ads are a popular form of advertising in eSports that offer great flexibility and visibility in the context of eSports. For instance, given that most of fans enjoy eSports via TV or Internet broadcasts rather than visiting the actual arena in person unlike traditional sports and that the screen of such broadcasts is mostly graphic animation, it is easy to utilize virtual ads both technically and esthetically. The congruence in graphic animation from the game play and virtual ads shown together on the screen in eSports may result in less irritation, compared to the combination of traditional sports and virtual ads.

One interesting issue worth paying attention to is that, despite the emerging importance of eSports advertising, there has not been any clear understanding about influential factors for the effectiveness of eSports advertising. The current practice of placing virtual ads in eSports

tends to be random without clear guidelines or strategic plans. For instance, some ads have animation features, while others are static. Some ads are displayed at the beginning of the match, while others are displayed in the middle or end of the game, to name a few. Although there have been a few studies that examined the effects of in-game ads (Huang and Yang 2012; Terlutter and Capella 2013) or the effects of online ad animation (Yoo and Kim 2005; Yoo, Kim, and Stout 2004), these studies were not conducted in the context of eSports, which is a hybrid form of broadcasting and video-game play.

Therefore, the purposes of the current study are to examine (1) how the characteristics of eSports virtual ads (i.e., ad animation) influence viewers' attention; and (2) how the effects from such characteristics of virtual ads can be influenced by the dynamic nature of game play (i.e., battle scenes vs. non-battle scenes). In the following section, we will review the literature on animation effects and dynamic gaming contexts, as well as their relationships with attention. Then, we will introduce a laboratory experiment that has been conducted to address the proposed hypotheses on animation, game dynamics, and attention in eSports advertisements.

2. Literature Review

2.1. Effect of Ad Animation

Animation has been considered as one of the most effective advertising tools because of its ability to attract human attention. For instance, a study (Yoo et al. 2004) reported the positive effect of ad animation on attention by demonstrating that participants exposed to online banner ads with moving advertising cues paid significantly more attention to the ads, compared to those exposed to static banners. In a similar vein, Li, Huang, and Bente (2016) showed that participants who saw the banner ads with their images looped in every 0.5 seconds maintained a

greater level of visual contacts with the ads, compared to participants who saw the non-animated ads using an eye-tracking method.

Although the effects of ad animation have not been directly investigated in the context of eSports (De Sa, Navalpakkam, and Churchill 2013), it is reasonable to expand the findings from previous research on ad animation to eSports because of the following two reasons. First of all, from the evolutionary psychology point-of-view, the association between attention and moving objects makes sense: human attention has evolved in the direction of reacting sensitively to motion because early visual detection of prey and predators was very important for human survival in the Stone Age (Girelli and Luck 1997; Pratt, Radulescu, Guo, and Abrams 2010). As such, the applicability of positive effects of ad animation on attention can be well expanded to other contexts. Secondly, ad animation has been identified as an influential media factor for successful online ads (Yoo et al. 2004) and has been used frequently for attracting consumer attention in practice (Cho and Cheon 2004; Tavassoli 2008). It is very plausible that distinctive ads will get more attention and that moving ads are more distinctive than motionless ones (Yoo et al. 2004). This suggests that animated virtual ads may be more effective in getting viewers' attention than static ads even in the new context of eSports.

Meanwhile, traditional psychological measures of attention have been criticized in measuring people's attention during their exposure to the ads. Traditional measures are based on a post-hoc survey solely depending on individuals' perception and memory after their media experience. In this sense, such measures are naturally limited in catching the exact amount of attention paid during the moment when stimuli are presented (Milosavljevic and Cerf 2008; Wedel and Pieters 2008). On the other hand, eye-tracking technology can be used as a more objective measure of attention to ads during individuals' media exposure. In fact, many studies

(Hernández-Méndez and Muñoz-Leiva 2015; Kim and Lee 2011; Lee, Ahn, and Park 2015; Li et al. 2016) have utilized eye-tracking devices to produce good reliable results with respect to the measurement of attention. Taken together, the current study utilizes the eye-tracking methodology of fixation count and total fixation duration to examine the effect of ad animation on viewers' attention (see also Otterbring, Wästlund, and Gustafsson 2016).

2.2. Effects of In-Game Dynamics

Since eSports resemble traditional sports in many ways, they also have climaxes and highlights during the broadcast. For example, similar to how football fans go wild at goals, eSports fans get excited at fight scenes: they come to hold their breath and to fully concentrate on the game screen when the *Terran Marine Corps* massacre a swarm of *Zerglings* in *StarCraft* or when the blue and red sides of *Summoner's Rift* charge to each other in the final 5-to-5 team battle in LoL. As such, in-game situations are likely to influence the level of attention of viewers in eSports, which may also influence the effectiveness of virtual ads because viewers cannot pay close attention to both the broadcast of eSports and virtual ads at the same time. This conforms to the prior explanations (e.g., Eysenck 1982; Pham 1992) highlighting that heightened arousal could have a significant negative impact on attention.

The proposition can be understood better by the limited-capacity model of attention (Kahneman 1973; Lang 2000). The limited-capacity model of attention posits that there is a certain limit to one's total attentional capacity and that such limited capacity can be used either for the primary task or for the secondary task. Naturally, the more user attention is allocated to the primary task, the less attention is given to the secondary task mainly because the attentional capacity for the primary task cannot be used for any other tasks (Kahneman 1973; Lee and Faber

2007; Lynch and Srull 1982). To apply the limited-capacity model of attention to the current study, the primary task is the broadcast of game play, while the secondary task is the embedded virtual ads. In other words, the more eSports viewers are immersed into the game play, the less their attentional resource is likely to be allocated to the virtual ads.

There have been a few studies that examined the effects of in-game dynamics such as players' performance or game difficulty on advertising effectiveness, measured by brand recognition and evaluation. Herrewijn and Poels (2013) found that as the video game became more difficult, the players recognized less in-game ads and the advertised brands. Similarly, Lull, Gibson, Cruz, and Bushman (2016) also demonstrated that when an ad was presented with emotionally-arousing in-game stimuli (e.g., crushing in-game characters with cars, or shooting other players), game players had a problem of recalling the advertised message. All these findings are in line with the limited-capacity theory positing that as game play becomes more exciting and arousing, the viewers of eSports are likely to pay their attention to the primary feature of game broadcast and less attention to the secondary feature of virtual ads (Lang 2000; Grigorovici and Constantin, 2004).

2.3. Interaction Effects between Animation and In-Game Dynamics

According to the previous findings from ad effectiveness and in-game dynamics, the effectiveness of eSports ads is likely to increase when virtual ads are placed in a situation where there is a little or no exciting activity in the broadcasted game play, which means low cognitive load for its viewers. In this case, ad animation and in-game dynamics may interact with each other in the way that in-game dynamics moderates the effectiveness of ad animation on attention by attenuating it when exciting game-plays go on in **eSports**. Several studies (e.g., Höffler and

Leutner 2007; Lowe 1999) support this notion by showing that animations beyond the scope of people's limited cognitive capacity might actually cause cognitive overload.

2.4. Hypotheses Development

To summarize our review of the relevant literature, human vision has evolved to respond sensitively to movements in order to escape from predators or to detect prey as soon as possible (Pratt et al., 2010). As such, ad animation may attract eSports viewers' attention. On the other hand, the limited-capacity theory (Kahneman 1973; Lang 2000) suggests that the amount of information to be processed such as in-game dynamics limit viewers' attention on ads. Finally, in-game dynamics may moderate the impact of ad animation on attention (Höffler and Leutner 2007; Lowe 1999). Therefore, we propose the following hypotheses regarding the effects of ad animation and in-game dynamics on viewers' attention on virtual ads:

H1: Participants will pay more attention to animated virtual ads than static virtual ads in eSports, in terms of their (a) fixation count; and (b) total fixation duration.

H2: Participants will pay more attention to the virtual ads shown during non-battle scenes than the ones shown during battle scenes, in terms of (a) fixation count; and (b) total fixation duration.

H3: The difference in attention levels paid to animated ads and static ads will be greater when the virtual ads are shown during non-battle scenes, compared to when shown during battle scenes.

3. Method

3.1. Design, Subjects, Manipulation, and Procedure

The current study used a 2 (ad animation: static ads vs. animated virtual ads) $\times$ 2 (in-game dynamics: battle vs. non-battle scenes) mixed design with ad animation as a between-subject factor and in-game dynamics as a within-subject factor.

A total of 120 participants with their age ranging from 19 to 27 ($M = 22.83$, $SD = 2.04$) took part in an experiment from a university in South Korea. Upon their arrival to a laboratory, all participants were randomly assigned to one of the two experimental conditions. During our data analysis, six participants who recorded less than 70% of the gaze sample rate were removed from the data set as recommended by a previous study (Stanley, Zhang, Fung, and Isaacowitz 2013), which resulted in 114 participants for our final data analysis. Among 114 participants, 58 (22 females) were assigned to the static condition and 56 (18 females) in the animated condition respectively.

Four existing brands (*Maple Story*, *PANTECH*, *MISSHA*, *SPAO*) with a moderate level of brand awareness were selected via a pre-test of 50 different brands ($N = 22$). The final virtual ads were created to have all white logos of the chosen brands and were later superimposed into the video stimulus of an actual eSports (*StarCraft 2*) VOD (see <http://y2u.be/56BUSGgWUko> for the original version).

For the non-battle scene condition, the two virtual ads were placed at the beginning of the game broadcast where there was not any noteworthy in-game activities at the moment, which is a common practice of eSports advertising (see for example, <http://y2u.be/wgvz4jDrEhs>). On the other hand, the same ads were inserted into the match-deciding battle scene for the battle-scene condition. To summarize, each participant saw two virtual ads twice, at the beginning and climax of the broadcast as the battle scene was a within-subject factor. To control for any confounding

effect from product types, a half of participants saw a pair of brands relatively less-relevant to eSports (i.e., MISSHA - cosmetics and SPAO - apparel), while the other half saw a pair of more-relevant brands to eSports (i.e., Maple Story - online game and PANTECH - mobile phone). There was not any statistical difference in attention between these two different types of ads, and therefore they were analyzed together (see Table 1 for details).

===== [Table 1 near here] =====

For the animated ad condition, the virtual ads were created to show animation by rotating each logo once during their exposure for 15 seconds. For the static ad condition, the virtual ads remained static during their exposure for 15 seconds. The virtual ads were placed in the same location all the time: the middle of the game screen, one in the left and the other in the right corner of the screen (see Figure 1).

===== [Figure 1 near here] =====

Upon their arrival at the experimental site, subjects were asked to sit in a comfortable chair and to wear a glass-type eye-tracker (*Tobii Glasses 2*, Danderyd, Sweden). After a short introduction and an auto-calibration process, they were instructed to watch the eSports VOD on a 55-inch HD TV for about 5 minutes.

3.2. Eye-tracking Data Processing

Subjects' eye movements were recorded at the rate of 30 *Hz*, and four areas of interest (AoI) were set to extract valid fixations on each virtual ad. The data were cleaned according to the general procedure suggested by previous studies (Duchowski 2007; Olsen and Matos 2012), using *Tobii Glasses Analyzer* that adopts an identification-velocity threshold (I-VT) fixation filter (*Tobii Technology*, Danderyd, Sweden). Specifically, we first removed the noises created by tremors or micro-saccades and then filled in the gaps between gaze data using the interpolation method (maximum gap length 75 *ms*). Then, we also removed saccades (fixations exceeding the angular velocity of 30°/s) and merged the short adjacent fixations (maximum time between fixations to 75 *ms*; maximum angle between fixations 0.5°) together. Finally, we discarded fixations under the minimum duration of 60 *ms* and calculated the number of valid fixations on each AoI (fixation count) and their durations (fixation duration).

4. Results

A series of two-way mixed analysis of variance (ANOVA) with repeated measures was performed to address the hypotheses (see [Table 2](#) for the ANOVA results).

===== [[Table 2](#) near here] =====

4.1. Main Effects of Ad Animation

H1a was supported. The result confirmed the main effect of ad animation on fixation count. Participants stared at the animated virtual ads significantly more frequently ($M = 2.11$, $SD = 0.18$) than the static ads ($M = 1.26$, $SD = 0.18$), $F(1, 112) = 10.85$, $p = .00$, $\eta^2 = .09$.

H1b was also supported. The result confirmed the main effect of ad animation on fixation duration. Participants stared at the animated virtual ads significantly longer ($M = 0.51$, $SD = 0.05$) than the static ads ($M = 0.28$, $SD = 0.05$), $F(1, 112) = 12.78$, $p = .00$, $\eta^2 = .10$.

4.2. Main Effects of In-Game Context

Consistent with H2a, the result showed that participants stared at the virtual ads presented in the non-battle scene significantly more frequently ($M = 2.38$, $SD = 2.22$) than those ads in the battle scene ($M = 0.98$, $SD = 1.31$), $F(1, 112) = 45.53$, $p = .00$, $\eta^2 = .29$.

H2b was supported as well. The result confirmed the main effect of in-game dynamics on fixation duration. Participants stared at the virtual ads in the non-battle scene significantly much longer ($M = 0.59$, $SD = 0.60$) than those ads in the battle scene ($M = 0.20$, $SD = 0.32$), $F(1, 112) = 44.54$, $p = .00$, $\eta^2 = .28$.

4.3. Interaction Effects

Although there was no significant interaction effect between ad animation and in-game context on fixation count, $F(1, 112) = 2.80$, $p = .10$, *n.s.*, the result showed that there was a significant interaction effect on fixation duration, $F(1, 112) = 4.12$, $p = .04$, $\eta^2 = .04$ (see Figure 2). The pattern of interaction showed that participants stared at the animated ads longer ($M = 0.77$, $SD = 0.75$) than the static ads ($M = 0.42$, $SD = 0.35$) in the non-battle scene, $F(1, 112) = 10.45$, $p = .00$, $\eta^2 = .09$. However, in the battle scene, there was not any significant difference in fixation duration between the ad animation condition ($M = 0.26$, $SD = 0.38$) and the ad static condition ($M = 0.15$, $SD = 0.24$), $F(1, 112) = 3.82$, $p = .05$, *n.s.*

===== [Figure 2 near here] =====

5. Discussion

The current study investigated the effects of ad animation and in-game dynamics on viewers' attention to virtual ads in the context of eSports. The results confirmed that both ad animation and in-game dynamics had significant effects on viewers' attention in terms of fixation count and fixation duration measured by an eye-tracking device. In particular, participants stared at virtual ads significantly more frequently and longer when animated virtual ads were displayed and when such ads were displayed during non-battle scenes. The results imply two important points: On one hand, the results indicate that ad animation is indeed one of the most powerful attention-grabbing factors as demonstrated in previous studies (Lee et al. 2015; Yoo and Kim 2005; Yoo et al. 2004). On the other hand, the results imply that the limited-capacity model (Grigorovici and Constantin 2004; Kahneman 1973; Lang 2000) can be applied to the context of eSports advertising. That is, due to the inevitable limitation of our information-processing ability, it is more strategic and effective if virtual ads are to be displayed during the period of game play that demands less cognitive efforts than just random display that is close to the current industry practice. Taken together, our findings provide advertising practitioners with a simple and yet useful guideline: to utilize animation features when designing virtual ads and to embed them more strategically by avoiding intensive and possibly immersive game contexts as much as possible.

It is noteworthy that the effects of ad animation on eSports viewers' attention were attenuated when the virtual ads were displayed in the battle scene. The result of interaction effect implies that in-game dynamics is an impactful moderator for ad animation as suggested by previous research (Lull et al. 2016; Yoo and Eastin 2017). According to evolutionary psychology, it has been argued that

humans tend to be naturally attracted to emotionally arousing cues at the expense of losing their focus on other stimuli (Chung and Sparks 2016; Levine and Edelstein 2009; Mather 2007). As such, there is a good chance that in-game battles generate arousing emotions such as excitement and thrill, which, in turn, is likely to demand eSports viewers' full attention. In other words, the fans may not have enough spare attentional resources for ads when the fighting scenes get so intense, exciting, and immersive. Also, this finding is somewhat in line with that of a prior study (Sasse and Ludwig as cited in Sander and Altobelli 2011, 30) that viewers tended to avoid virtual ads during football matches when there was a risk of diverting the viewers' attention from the sports event.

Another interesting pattern of interaction is that there was a significant difference in fixation duration between the animated and static ads in the non-battle scene, while there was not any significant difference in the battle scene. Such a pattern of interaction was not found in fixation count. A plausible explanation for the mixed results on fixation duration and fixation count is that ad animation may still make viewers to look at virtual ads, regardless of in-game dynamics. However, when viewers' attentional resources are mostly allocated to the content of broadcast due to exciting game changes (i.e., the battle scene), viewers are likely to quickly bring their attention back to the game play. On the other hand, when viewers have enough attentional resources to spare, they may view virtual ads longer when such ads have animation features, compared to when such ads are static. Taken together, ad animation has a significant impact on receiving attention in terms of the number of times viewers look at the ads, regardless of in-game dynamics. Ad animation can be even more powerful in receiving attention in terms of how long viewers look at the ads if it is used during less busy or exciting period of game play.

It is interesting to note that some research on video games found a decrease in cognitive resources only among actual game players, but not among the observers of the game play (see

Herrewijn and Poels 2015; Nelson, Yaros, and Keum 2006), which is different from the results of the current study. A major difference between the current study and the other studies is the nature of viewing: the observers in those studies simply saw someone's gameplay, while in eSports, observers see the broadcast of professional gamers' play with commentary. In this sense, the viewers of eSports are the main consumer of the entertainment product and thus are likely to pay a good amount of their attention to the broadcast of eSports, unlike the observers of game play among friends. However, it is also plausible that observation requires less attentional resources than play in general. Although viewing eSports may require more attentional resources than viewing friends' game play, it may require less attentional resources, compared to actual game play. This may explain the mixed results of interaction effect on fixation count and fixation duration in the current study and calls for additional research for a clearer understanding.

There are a few limitations in this study. We only measured the level of attention to the virtual ads in terms of fixation count and duration without measuring attitudes toward the advertised brands or buying intention of the brands. This was because our interest was to investigate the level of attention, not to look at how such attention influences attitudes or buying intention. Nevertheless, additional variables such as attitudes or buying intention need to be examined in future research since the purpose of advertising is to influence the sales of products or services, not just the awareness of products or services. In this regard, it will be interesting to examine how attention to virtual ads may be processed sub-consciously or be perceived as distraction, which may result in different outcomes in terms of attitudes or buying intention. **We need to be cautious not to overgeneralize the findings.** Although the results were significant with a moderate level of effect sizes, they are from an one-time experiment with a small sample size. More research is needed for a clearer understanding of the emerging eSports market.

As a final remark, the current study has some practical and theoretical implications. First, practically, our findings may contribute to improve the current non-strategic practice of placing eSports virtual ads by providing advertising practitioners with empirical evidence for ad designs and placement timing. Second, this study utilizes a new theoretical framework of the limited capacity model in context of eSports and virtual advertising. Given that playing video games is different from watching someone's play in terms of allocating attentional resources and that most of previous research examined actual game play and advertising, the results of the current study can be a good starting point to understand how certain findings on advertising from previous research can be applied to the emerging advertising market of eSports.

Disclosure Statement

No competing financial interests exist.

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Table 1. *Results of significant test between the two ad types*

Dependent Variables	AD Types	<i>N</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>
Fixation Count (First Exposure)	Less-Relevant	56	2.02	1.89	-1.73	.09
	More-Relevant	58	2.73	2.46		
Fixation Count (Second Exposure)	Less-Relevant	56	0.76	1.20	-1.77	.08
	More-Relevant	58	1.19	1.38		
Fixation Duration (First Exposure)	Less-Relevant	56	0.53	0.52	-0.99	.33
	More-Relevant	58	0.64	0.68		
Fixation Duration (Second Exposure)	Less-Relevant	56	0.16	0.33	-1.36	.18
	More-Relevant	58	0.24	0.30		

Table 2. *ANOVA Results*

Dependent Variables	Means and Standard Deviations				<i>F</i> values and effect sizes		
	Static Ads		Animated Ads		Main Effects		Interaction
	Non-Battle	Battle	Non-Battle	Battle	Animation (A)	In-Game Context (C)	A × C
Fixation	1.79	0.73	2.99	1.23	10.85**	45.53**	2.80
Count	(1.48)	(1.04)	(2.67)	(1.50)	$\eta_p^2 = .09$	$\eta_p^2 = .29$	$\eta_p^2 = .02$
Fixation	0.42	0.15	0.77	0.26	12.78**	44.54**	4.12*
Duration	(0.35)	(0.24)	(0.75)	(0.38)	$\eta_p^2 = .10$	$\eta_p^2 = .28$	$\eta_p^2 = .04$

Note. * $p < .05$ (two-tailed), ** $p < .01$ (two-tailed).

(a) non-battle scene - animated ads

(b) battle scene placement - animated ads

(c) non-battle scene placement – static ads

(d) battle scene placement – static ads

Figure 1. *Eve Movements Heat Map Examples*

Figure 2. *Interaction Effect between Ad Animation and In-game Context on Fixation Duration*