Chapter XIX
The Effect of Arousal on Adolescent’s Short-Term Memory of Brand Placements in Sports Advergames

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ABSTRACT

The authors’ study examined factors affecting Mexican adolescent’s memory of brand placements contained in advergames. Specifically, two concerns were investigated: (1) the effect of high/moderate arousal on adolescent’s short-term recognition, and (2) the effect of high/moderate arousal on brand confusion. Analyses indicated that high arousal advergames corresponded to both higher hit scores (better recognition) and lower false alarms (less confusion) than moderate arousal advergames. The findings revealed more accurate short-term memory when subjects were exposed to a high arousal condition than to a moderate arousal condition. Advertisers wishing to target adolescents could strengthen the recognition of their products and brands by relying on fast pace or competitive game genres.

INTRODUCTION

Young adults are considered one of the most vulnerable audiences to advertising as well as a unique online segment. One form of online advertising that adolescents are often exposed to is advergaming (Stoughton, 2005). Advergaming is the delivery of advertising messages through electronic games. The extensive visual exposure to the brands is a distinctive feature offered by this technique. In spite of its increasing popularity, scarce research has been conducted address-
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ing effects of emotional responses to advergame playing on young consumers.

The term “arousal” and its synonyms “alertness,” “activation,” and “excitation” describe a process that energizes behavior and affects non-exclusively cognitive performance (Ragazzoni, 1998). To date, few studies had addressed the effect of arousal on different online aspects. The effect of arousal on online behavior has been examined for the Internet shopping experience (Menon & Khan, 2002), finding that the more stimulation and information load, the less the consumer will engage in shopping behavior. Lee, Suh and Whang (2003) found that some dimensions of emotion— including arousal—significantly influenced positive consumer attitudes. Yoo and Kim (2005) concluded that a U-shaped relationship exists between the level of animation and both recognition and attitudes toward the ad. High levels of arousal were found in highly entertaining web sites, resulting in positive site evaluations and increased purchase intention (Raney et al., 2003). However, no previous study has examined the effect of different levels of arousal on memory of brand placements in advergames. Moreover, no research to date has examined such effects on adolescent’s memory of brands.

Our study examined how emotional responses affect adolescent’s short-term recognition of brand placements contained in advergames. Specifically, two concerns were examined: (1) the effect of high/moderate arousal on adolescent’s memory, and (2) the effect of arousal on brand confusion. In sum, our purpose was to uncover the effects of interaction via advergames with well-known and well-liked brand placements, and their extensions into adolescent’s memory.

Latin America has the fastest growing Internet user population in the world (eMarketer, 2007). In spite of this, there is very little information about the Latin American online gaming audience. In order to fill this gap, Mexico was selected for the study due to their large number of users. The number of Mexican Internet users has exceeded 3.6 million, ranking second in the number of users in Latin America (Instituto Nacional de Estadística, Geografía e Informática, 2007). In particular, later elementary and junior high school children’s memory will be examined because as opposed to pre-school and early elementary school children, the first group’s brand preferences are more consistent (Bahn, 1986). In addition, this group is able to read and write with enough confidence to answer a simple survey. Accordingly, the purpose of our study was to examine factors having an effect on memory of advergames by later elementary and junior high school students in Mexico.

BACKGROUND

Recent scholarly studies have addressed the effectiveness of product and brand placements in electronic games via assessment of brand recall. Nelson (2002) addressed short- and long-term brand recall and attitudes toward brand placements in commercial games among a small group of American players. Findings revealed that players were able to recall 25 to 30 percent of brands in the short term and about 10 to 15 percent in the long run. Brands demonstrated recall superiority when they were a major part of game-play, when they were local, new or atypical brands, or relevant to the player.

Hernandez et al. (2005) assessed brand recall in online settings, extending previous analysis of scripts by providing a comparison of recall by natives of one Eastern language (Korean) versus three groups of natives of two Western languages (Spanish and English) simultaneously. Subjects with the ability to process a biscriptal language (Korean) demonstrated recall superiority in one out of two experimental stimuli over subjects habitually processing language based on alphabetic script (English and Spanish). Overall, brand recall and attitudes results were consistent with Nelson’s (2002) findings. Results also indicated that neither the level of expertise of players nor the perceived goal difficulty has an effect on brand recall.