A FRAMEWORK FOR UNDERSTANDING THE FACTORS THAT INFLUENCE SPECTATORS’ RECALL AND RECOGNITION OF EMBEDDED SPONSORSHIP STIMULI

By

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A thesis
presented to Brock University
in fulfillment of the
thesis requirement for the degree of
Master of Arts
in
Applied Health Sciences (Recreation and Leisure Studies)

St. Catharines, Ontario, Canada, 2004

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ABSTRACT

Now, more than ever, sponsors of athletic events demand to see evidence of a commercial return, such as enhanced brand awareness, for their investment of cash or non-cash resources (Lough et al., 2000). The most common way to measure the impact of perimeter signage (i.e., any billboard or sign that displays a company’s brand name and/or logo and which surrounds the playing area) on spectators’ awareness of event sponsors has been through the use of brand name recall and recognition tests (Shilbury & Berriman, 1996). Recall testing requires spectators to list all of the sponsors they can remember seeing at, for example, an athletic event, strictly from memory and without any help (Cuneen & Hannan, 1993). With recognition testing, spectators are required to identify sponsors from a prepared list that include “dummy” brand names (i.e., sponsors that are present in the list but which do not actually sponsor the event). In order to determine whether sponsors’ brand awareness objectives are being met, it is important for sport and recreation marketers to understand what influences a spectator’s ability to remember (i.e., recall and/or recognize) the brand names of companies who advertise on perimeter signage. The purpose this study was to examine the factors that influence spectators’ recall and recognition of embedded sponsorship stimuli (i.e., company brand names on perimeter signage surrounding the play area) at a Canadian University’s men’s basketball game and football game. These factors included the number of games spectators attended over the course of the season (i.e., repeated exposure to sponsorship stimuli), spectators’ level of involvement with the event, and spectators’ level of involvement with the advertisements (i.e., perimeter signage). This study also examined the differences between recall and recognition as a means of measuring spectators’ awareness of sponsors, and attempted to determine if there are sport differences in spectators’ recall and recognition of perimeter signage. Upon leaving the football stadium or gymnasium, spectators were approached, at random, by trained research assistants located at each exit and asked to complete a brief survey questionnaire. Respondents completed the survey on-site. A total of 358 completed surveys were collected from spectators who attended the football (N = 277) and basketball (N = 81) games. The data suggest that football and basketball respondents recognized more sponsors’ brand names than they recalled. In addition, football respondents who were highly involved with the event (i.e., those individuals who viewed attending the events as fun, interesting and exciting) attended more games over the course of the season and had significantly higher brand name recognition of sponsors who advertised on perimeter signage than those individuals with low involvement with the athletic event. Football respondents who were highly involved with the sponsors’ advertisements (i.e., those individuals who viewed sponsors’ perimeter signage as appealing, valuable and important) had significantly higher brand name recall of event sponsors than those individuals with low involvement with these sponsors’ advertisements. Repeated exposure to perimeter signage did not have a significant influence on football or basketball respondents’ recall or recognition of sponsors. Finally, the data revealed that football respondents had significantly higher recall of sponsors’ brand names than basketball respondents. Conversely, basketball respondents had significantly higher recognition of sponsors’ brand names than did football respondents.
I would like to thank my supervisor, Dr. Paula Johnson Tew for her ongoing guidance and encouragement throughout every phase of this study. I would also like to thank the members of my advisory committee, Dr. Cheri Bradish, Bob Copeland, and Dr. Philip Sullivan, for sharing their expertise and for giving me their helpful suggestions. I extend appreciation and thanks to my external examiner, Dr. Ron McCarville for his insightful comments. Also, thanks go to Jim Hagen and Chris Gilbert for their input and help in collecting the data for this study. A special thanks goes to my dearest Amanda, and to my family. Their patience, love, and support have made this possible.
To Amanda, Mom, and Dad
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CHAPTER ONE: INTRODUCTION

1.1 Introduction

The concept of sponsorship implies an exchange of resources between two parties (McCarville & Copeland, 1994). In the case of sport sponsorship, a company will pay a cash and/or in-kind fee in exchange for association rights with the sport organization (McCarville & Copeland). Now, more than ever, companies sponsoring athletic events are seeking commercially driven objectives from the sponsorship agreement such as enhanced brand awareness from on-site advertising (Lough, Irwin, & Short, 2000). From the sport organization’s perspective and, in particular, within university athletic departments, “on-site advertising sales are a major revenue source for college and professional sport operations and are being pursued more aggressively than ever before” (Turco, 1996, p. 11).

The revenues that are generated from sponsorship agreements (i.e., money that is received for on-site advertising at the event) are important to the financial stability of many university and college athletic departments. Therefore, as sponsoring companies are beginning to demand to see evidence of a return on their investment, efforts must be made to evaluate and measure sponsorship effectiveness (IEG, 1997). In evaluating sponsorship effectiveness, researchers (e.g., Turco, 1996) have attempted to understand how sponsorship impacts spectators of an athletic event. Turco suggested that information on the influence that sponsorship has on spectators “should be communicated to current and prospective advertisers [sponsors] to emphasize the value and importance of their promotional campaigns” (p. 11).
Much of the research into the measurement of sport sponsorship effectiveness has been conducted within American college athletic programs (e.g., Slattery & Pitts, 2002; Stotlar & Johnson, 1989; Turco, 1996) and professional sport settings (e.g., Bennett, 1999; Cornwell, Relyea, Irwin, & Maignan, 2000; Cuneen & Hannan, 1993; Harshaw & Turner, 1999; Nicholls, Roslow, & Dublish, 1999; Shilbury & Berriman, 1996; ). However, very few studies have examined the measurement of sport sponsorship effectiveness within the Canadian University athletic environment.

1.2 Historical Overview of Sponsorship

Wilkinson (1993) stated that sponsorship originated with sporting activities and that these events continue to provide corporations with the most opportunities to engage in such associations. During the 1960s and 1970s, corporate involvement in sponsorship was primarily philanthropic and funding for athletic events was not part of the company's marketing plan (Wilkinson). Moreover, decisions to sponsor an event were emotionally based and usually the event was of personal interest to the CEO (Wilkinson).

By the 1980s, spending on sponsorship began to grow (especially in the sport and entertainment industries) in response to a growing demand for corporations to show a return on investment during recessionary times. Sponsorship was beginning to be viewed as a viable marketing tool (Wilkinson, 1993). Despite the growth in sponsorship spending during the early 1980s, the International Event Group (IEG) (2003) stated that very few institutions were educating individuals about the medium, and no market research was measuring its effectiveness. However, by the late 1980s, "Philanthropic Sponsorship" gave way to a corporate view of sponsorship as having "a role within the marketing mix as a unique communications medium providing a platform for a specific type of corporate
brand expression” (Wilkinson, 1993, p. 12). In addition, decisions about which events to sponsor were no longer made out of the personal interest of high-ranking executives. Instead, established criteria and measurable objectives of the sponsorship’s impact on the business were being used in a careful selection process (Wilkinson).

Lough et al. (2000) explained that over the years, the corporate view of sponsorship as a form of philanthropy was replaced by a corporate desire to seek a return on investment. Lough et al. stated that “philanthropy was an important policy that contributed to past sponsorship arrangements. However, the days of CEOs providing support in order to gain access to sport’s elite have been replaced by concentration on a business relationship used to secure a commercial advantage...the once frivolous investments that originated sport sponsorship agreements have been replaced by the business orientation reflected in the return on investment philosophy” (p. 290). Further, corporations began to see the advantage of using sponsorship as a tool to break through advertising clutter and as a cost-effective medium to supplement other forms of traditional advertising (Wilkinson, 1993).

By 1988, sponsorship became the fastest growing form of media in North America. Although it was once used by corporations for free visibility and client entertainment, sponsorship was beginning to be put to use in order to meet the needs and wants of clients, and to build sales (IEG, 2003). Some of the growth in sponsorship spending during this decade may have been in response to diminishing advertising budgets. Thus, corporations had to shift from a dominant reliance upon measured media (e.g., television, radio, or magazine ads) to more cost-effective communication vehicles such as the sponsorship of an athletic event (Wilkinson, 1993). Sponsorship continued to
grow into the early 1990s. In 1994, North American spending on sponsorship totaled $4.2 billion from over 4,500 companies (IEG, 2003). Rapp and Collins (1994) suggested that corporate sponsorship flourished during the 1990s because of its ability to provide companies with opportunities for brand extensions, overcome the clutter from traditional advertising, and provide a cost-effective business building technique.

Today, sponsorship continues to grow as marketers see a need to move from passive communication (e.g., television advertising) to interactive media such as sponsorship “where consumers can experience what a company stands for and establish a dialogue” (IEG, 2003, p. 3). Recent growth in sponsorship has resulted from “marketers’ need to tether their products and services to something meaningful” (IEG, p. 7). For example, Nicholls et al. (1999) suggested that sponsoring an athletic event would allow a company to connect their product(s) or brand(s) with spectators under favourable conditions where there is enthusiasm, excitement, and enjoyment.

While much of this discussion has focused on sponsorship from the corporate perspective, the revenue that is generated from association rights provides a variety of properties or sponsees (i.e., any commercially exploitable entity), typically found in sports, arts, events, entertainment, or causes, with a vital source of money necessary to run programs (IEG, 2003). Recently, Shilbury and Berriman (1996) noted that sport properties’ reliance on corporate sponsorship dollars has never been so great. The authors argued, “sponsorship has become a valuable source of income for a number of sports. An alliance between a sporting organization and a corporation can have enormous benefits for both parties with an increasing number of corporations being alerted to the potential benefits of this medium of communication” (p. 27). Likewise, IEG stated that,
“sponsorship is still the only marketing platform available that is mutually beneficial to the business community and to the local and global communities of its consumers” (p. 3).

1.3 Definitions of Sport Sponsorship and Conceptual Differences from Philanthropy and Advertising

IEG (2003) defined sponsorship as “a cash and/or in kind fee paid to a property (typically in sports, arts, entertainment or causes) in return for some access to the exploitable commercial potential associated with that property" (p. 1). Likewise, McCarville and Copland (1994) argued that sport sponsorship “is a business relationship through which support is offered in return for rights and association” (p. 103). The authors stated that sport sponsorship is characterized by three main elements:

1. A sponsor makes a contribution, in cash or in kind.

2. The activity that a given company sponsors is not part of its own commercial function.

3. The sponsor expects a return in some form (p. 103).

Lardinoit and Debraix (2001) noted that there seems to be a broad consensus around the working definition of sponsorship. The authors argued that most research using definitions of sponsorship (e.g., McCarville & Copeland, 1994; Meenaghan, 1991) are grounded in the notion that sponsorship involves an investment in an activity in return for access to the exploitable commercial potential associated with the activity. Lardinoit and Debraix attempted to build on this understanding which led them to define sponsorship as, “a technique which consists, for any organization, of directly creating or supporting an event that is independent of that organization, and associating itself with
that event through the media in order to reach some marketing communication objective” (p. 168).

As McCarville and Copeland (1994) and Lardinoit and Debraix (2001) have suggested, a sponsor of an athletic event expects the achievement of commercial objectives in return for the cash and/or in-kind fees that are paid to a sport property (e.g., heightened visibility of a brand, product, or service). The desire to fulfill a commercial objective is what distinguishes sport sponsorship from philanthropy (e.g., donations to charitable causes). IEG (2003) stated that, “although the recipient of sponsorship may be non-profit, sponsorship should not be confused with philanthropy. Philanthropy is support of a cause without any commercial incentive. Sponsorship is undertaken for the purpose of achieving commercial objectives” (p. 1). An employee of IBM (a prominent sponsor the Olympic Games) stated that sponsorship is “not philanthropic; it’s corporate contribution money. The goal [of sponsorship] is to help gain market share” (Stotlar, 1997, as cited in Lough et al., 2000, p. 285). This quote appears to support the importance corporations place on achieving commercial gains from sponsorship agreements.

Although a sponsored property may include a televised broadcast such as a live sporting event, sponsorship is conceptually different from advertising. For example, Lardinoit and Debraix (2001) explained that commercials for corporations shown during the commercial breaks of a televised sporting event are forms of advertising and not sponsorship, despite the fact that these companies may be sponsors of the event.

Typically, advertising uses measured media (e.g., magazine space, blocks of air time) and therefore is a more quantitative medium because it can be sold and evaluated in terms of cost per thousand (IEG, 2003). The purpose of advertising is to purchase space or airtime
for the direct promotion of a company’s product or service. In addition, advertising allows a company to carefully craft a message about a specific product or service. Therefore, the organization has control over what is said in the advertisement.

In contrast, sponsorship is a more qualitative medium that promotes an association between the company and the sponsee (IEG, 2003). Harshaw and Turner (1999) argued that effective sponsorship messages (e.g., signage) are relatively brief. As Pham and Vanhuele (1997) suggested, sponsorship promotional vehicles are usually limited to a brand name or logo. Therefore, although sponsors have control over what will appear on stadium signage, they have less space available to convey a message about a brand compared to traditional forms of advertising (e.g., television, newspaper).

Advertising and other forms of measured media are much easier to value in terms of dollars and cents than is sponsorship. For example, a company that chooses to run a commercial during a popular prime-time television show will be charged a certain amount based on the length of the advertisement and the number of times it is shown over the course of the program. However, putting a value on a sponsorship agreement is not as easy when compared to advertising and other forms of measured media. IEG (1997) explained that with sponsorship agreements, a corporation receives both tangible (e.g., a sign with the organization’s brand name and logo, access to a mailing list) and intangible (e.g., the prestige of the sponsored property, recognizability of the property marks and logos) assets from the agreement.

 Usually, the fee paid to a sport property will always be higher than the value of the tangible assets that are received in return (IEG, 2003). This difference is because of the intangibles associated with the event (IEG, 1997). For instance, a company may pay a
fee of $5000 to a university football team and receive, in return, a sign depicting its brand name and logo that is displayed around the perimeter of the field. While the sign may cost the athletic department $50 to produce, it is understood that the remaining $4550 covers the intangible assets the company receives, such as the prestige and winning tradition associated with the football program.

Corporations are beginning to realize that sponsorship works best “as part of an integrated marketing communications effort that includes the use of all marketing methods” (IEG, 2003, p. 13). Therefore, sponsorship is separate from, but should not replace, other forms of promotion (e.g., advertising, public relations, or sales promotion campaigns). As Shanklin and Kuzma (1992) predicted, corporate sponsorship has grown to become a separate element of a corporation’s promotion mix. For many companies, sponsorship works in conjunction with advertising, public relations, and sales promotion as part of an integrated effort to communicate with target audiences.

Lough et al. (2000) noted that today, many U.S. companies employ managers in their marketing departments who carry out sport sponsorship specific duties. However, such employment opportunities may not be as prominent within Canadian companies who sponsor sporting events. Indeed, Lough et al. noted that sponsorship specific employment opportunities were lacking in Canadian organizations. Perhaps, as the authors suggested, this can be explained by Copeland, Frisby, and McCarville’s (1996) notion that “corporate involvement in sport sponsorship is in its relative infancy in Canada” (p. 44).
1.4 Reasons for the Recent Growth in Corporate Sponsorship Spending

According to IEG (2003), "sponsorship has been the fastest-growing form of marketing for nearly the past two decades, outpacing the growth of measured media [advertising] and sales promotion" (p. 5). In North America, sponsorship spending has steadily increased from $2.8 billion in 1991 to a projected $10.5 billion in 2003 (IEG). For a summary of sponsorship spending in North America from 1993 to 2003, please see Figure 1.1.

Figure 1.1 Sponsorship Spending in North America from 1993 to 2003

The upward trend in spending depicted in Figure 1.1 may be a direct result of the advantages that sponsorship has over other forms of traditional measured media (e.g., advertising). For example, the costs for traditional measured media continue to increase; however, ratings and readership are declining (IEG, 2003). To compound this issue, consumers may not be paying attention to advertisements in the way that corporations had once hoped they would (IEG). For instance, with respect to television viewing, the
growth in cable and VCR technology has allowed individuals to tape their favourite shows, edit out commercials, or simply leave the room during commercial breaks. Thus, target audiences may not even be exposed to the intended advertisement.

Conversely, marketers using sponsorship mediums do not experience these communication barriers. As IEG (2003, p. 7) stated, sponsorship is a medium that "provides opportunities for embedded advertising, a fail-safe delivery system where messages are incorporated right into the action." For example, this study will attempt measure the effectiveness of the embedded sponsorship stimuli at a Canadian University's intercollegiate athletic events. In this study, embedded sponsorship stimuli refers to perimeter advertising (i.e., signage) which is reserved for sponsors and includes the stationary advertising (e.g., billboards) that surround an arena or event site and contain sponsor ID (e.g., a brand name or logo) (IEG).

Grey and Shildum-Reid (1999) stated that perimeter signage could be a strong communication vehicle. Harshaw and Turner (1999) appear to support this statement when they argued that, unlike advertising, spectators have no choice but to be exposed to sponsorship stimuli. The authors suggested that perimeter signage at an athletic event offers a distinct advantage over commercials aired during a telecast because, "the viewer cannot avoid exposure to the advertising signage by changing the channels with a remote control while watching the event" (p. 37). Spectators watching on television, or who have attended the event in person, are unable to intentionally avoid perimeter signage because it is integrated right into the action.

The fact that sponsorship offers a cost-effective medium and guarantees the target audience’s attention to embedded advertisements have certainly contributed to making
sport properties the largest beneficiary of sponsorship fees. This trend has remained relatively stable over the years. For example, IEG (2003) stated that in 1984, 90 percent of all sponsorship dollars went to sports. Likewise, in the 1990s sport remained the dominant category receiving corporate sponsorship dollars (Wilkinson, 1993). Today, sport continues to dominate sponsorship spending when compared to other property categories (e.g., arts, causes, events, and entertainment) although not to the same degree as it has in the past (IEG).

Mullin, Hardy, and Sutton (2000) stated that one of the major factors contributing to the growth of sport sponsorship has been the increased media interest in sport programming. The authors attribute this phenomena mainly to following:

1. The general public's increased leisure time and interest in sport.

2. Increased commercialization of television through commercials and infomercials.

3. The fact that it is less costly for television networks to broadcast sporting events than to produce shows or documentaries.

4. The growth of new media sources, such as subscription services via cable or satellite transmissions and pay-per-view special events, which have increased the demand for live sport programming and provided additional channels of exposure for sport as well as sponsors (p. 259).

Of the $10.5 billion that is expected to be spent on sponsorship in North America in 2003, $7.5 billion, or 70 percent went to sport properties (IEG, 2003). However, in exchange for this substantial amount of money, corporations seek more from sport properties than just opportunities for cost-effective embedded advertising. These
objectives will be discussed in the following section. For a summary of sponsorship spending by type of property, please refer to Figure 1.2.

Figure 1.2 Sponsorship Spending in North America by Type of Property

![Pie chart showing sponsorship spending by type of property: Sports 70%, Festivals, fairs, annual events 8%, Entertainment tours and attractions 8%, Causes 9%, Arts 5%. Source: IEG (2003)]

1.5 Objectives Companies Seek From Sport Sponsorship Agreements

Corporations seek to fulfill numerous objectives from their association with sport properties. Getz (1997) noted that it is important for event marketers to understand the objectives sought by sponsors in order to attract sponsorship revenue. A better understanding of what corporations wish to gain from sponsoring an event allows sport properties to tailor their proposals (i.e., offers to companies to become sponsors of an event) to meet the commercial needs of potential sponsors. For example, if a company wishes to enhance brand awareness of its products or services, a sport property can
ensure that the organization has opportunities for on-site signage. Getz compiled a list of
the most common objectives companies seek from sponsorship agreements (see Table
1.1).

**Table 1.1 Objectives Sought by Sponsors of a Sporting Event**

<table>
<thead>
<tr>
<th>Objective</th>
</tr>
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<tbody>
<tr>
<td>Heightened visibility</td>
</tr>
<tr>
<td>Image enhancement of corporation or product through association with a popular event</td>
</tr>
<tr>
<td>Direct sales outlets at the event</td>
</tr>
<tr>
<td>Relationships with customers and target segments</td>
</tr>
<tr>
<td>Enhanced awareness of the corporation and its products/services</td>
</tr>
<tr>
<td>Opportunities for entertaining the sponsor’s business associates, staff, VIPs, et cetera</td>
</tr>
<tr>
<td>Involvement of staff in worthwhile events (e.g., team building, morale boosting)</td>
</tr>
<tr>
<td>Profitable linkages with other sponsors, suppliers, government officials, and institutions</td>
</tr>
<tr>
<td>Differentiation of the company or product from competitors</td>
</tr>
<tr>
<td>Enhance the company’s reputation for being community oriented or socially responsible</td>
</tr>
<tr>
<td>To highlight product benefits or otherwise reinforce the public’s perception of the product</td>
</tr>
<tr>
<td>To test new products through sampling</td>
</tr>
</tbody>
</table>
To provide executives and key clients with entertainment or the opportunity to meet celebrities

To provide opportunities for firm-to-firm marketing

Adapted From Getz (1997, p. 218)

IEG (2003) noted that one of the objectives that sponsors of an athletic event may seek is the opportunity to drive sales. As Getz (1997) stated, one of the objectives companies seek from sponsorship agreements is the opportunity to have direct sales outlets at the event. Also, sales objectives can be met if companies are given the opportunity for product trials or sampling (Wilkinson, 1993). This arrangement allows spectators at an event to try certain products, for example, a new flavour of Gatorade. Sport properties can also allow their sponsors to offer spectators coupons or price discounts for their products or services, thereby, potentially increasing the company’s sales revenue (IEG).

A company may wish to achieve one or more of the objectives that have been described thus far. Part of what makes sponsorship such an effective communication vehicle is that it can offer a company the opportunity to achieve several of these objectives at once (IEG, 2003). For example, a company can gain enhanced awareness of its products or services from on-site signage, drive sales by offering discounts or coupons, and entertain important clients all from the same sponsorship agreement.

Recent literature (e.g., Copeland et al., 1996; Cornwell & Maignan, 1998; Lough et al., 2000; Mullin et al., 2000) related to the objectives that corporations seek from
being sponsors of an event has revealed that there is not one specific objective that best represents all corporate motives for associating with a property. However, there is strong evidence to support the notion that corporations seek more commercially orientated objectives (e.g., awareness, sales, product trials) and place less emphasis on philanthropic objectives (e.g., creating a reputation of being community oriented or socially responsible).

Lough et al. (2000) surveyed 300 companies from across Canada and the United States and asked them to rate a set of objectives that could be potentially fulfilled by their sport sponsorship agreements. The authors found that in both countries, companies rated market-driven objectives such as increased target market awareness, increased public awareness, increased market share, and increased sales as being the most important when engaging in sponsorship agreements. Conversely, Lough et al. found public service related objectives, such as demonstrating a sense of social responsibility to local communities (i.e., good citizenship) and corporate philanthropy, to be significantly less important to companies in both countries. While Canadian companies rated these public service objectives slightly higher than U.S. based companies, the number one rated objective from Canadian companies sponsoring sport properties was increasing target market awareness (Lough et. al.).

Other researchers (e.g., Copeland et al., 1996; Cornwell & Maignan, 1998) appear to support Lough et al.’s (2000) notion that corporations are now seeking market-driven objectives from their sport sponsorship initiatives. For instance, Copeland et al. found that Canadian companies frequently cited reasons such as increased awareness through on-site signage availability, category exclusivity (e.g., being the only soft drink company
to advertise at the event), and image reinforcement for their involvement in sponsorship. Likewise, Cornwell and Maignan argued that themes of awareness, image, and sales have dominated the findings of research attempting to determine why businesses choose to sponsor events.

1.5.1 Awareness Objectives

Aaker (1991) argued that “the primary role of most event sponsorship is to create or maintain awareness” (p. 75). Thus, enhanced awareness of a company’s brand, product or service offering is a recurring theme in much of the literature relating to companies’ objectives for sponsoring sport properties and will be the focus of attention within this study. Marconi (1993) stated that promotions, special events sponsorships, and publicity are all excellent ways for a company to raise the level of the consumer’s brand awareness. Likewise, Ind (1997) argued that sponsorship of an event is an ideal way for a company to communicate with spectators and build awareness of its brand. As Brooks (1990) suggested, sports provide companies with opportunities to develop awareness of brands to ready-made consumer segments to establish relationships between companies and consumers.

Brand awareness occurs when a company, through promotional activities (e.g., signage at athletic events), makes individuals think of its brand (Marconi, 1993). Rossiter and Percy (1987, p. 132) defined brand awareness as a “buyer’s ability to identify (recognize or recall) the brand within the category in sufficient detail as to make a purchase.” Therefore, companies often desire enhanced brand awareness to be fulfilled through their sponsorship promotions because it is thought that heightened levels of awareness may lead to spectator purchase actions (i.e., a purchase of a good or service
from the sponsoring company). As Turco (1996) stated, “corporations seek to advertise at sport venues to enhance brand recognition and, ultimately, consumption” (p. 12).

Nicholls, Roslow, and Dubish (1999) argued that brand awareness (recall) is one factor that may influence subsequent brand purchases. Similarly, Park, Roth, and Jacques (1988) suggested that brand-level awareness (i.e., a buyer’s ability to identify a brand name) can affect purchase decisions and create interest that leads to perceived differences between the sponsor’s brand and others in its product class.

Aaker (1991) explained that there are four ways that brand name awareness creates value for a company. First, a name can serve as an anchor to which other associations can be attached (Aaker). For example, the author stated that “it is wasteful to attempt to communicate brand attributes until a name is established with which to associate those attributes. A brand name is like a special file folder in the mind which can be filled with name-related facts and feelings” (p. 61). Aaker suggested that without such a file available in memory, the facts and feelings cannot be readily accessed when needed (i.e., when it is time to make a purchase within the product category). For example, it would be difficult for a consumer to purchase a Big Mac without first knowing that it is available from McDonalds.

Second, Aaker (1991) suggested that brand name awareness creates value for company because it provides the brand with a sense of familiarity. The author explained that consumers tend to like and purchase from brands which are familiar to them. Third, Aaker argued that name awareness can be a signal of presence, commitment, and substance. For instance, the fact that a brand name is retrieved from memory may
indicate to the consumer that the company is successful, uses extensive advertising, has been in business for a long time, or is widely distributed in the marketplace (Aaker).

Fourth, Aaker (1991) explained that because the first step in the buying process is often to select a group of brands to consider (i.e., a consideration set is established) it is important for a company to have high name awareness in order to be part of this group. If a brand is not part of a consumer’s consideration set, it may be unlikely that the buyer will purchase from the company (Aaker).

1.6 Measuring Brand Awareness as a Means of Determining Sport Sponsorship Effectiveness

Sponsors of athletic events increasingly demand that sport properties provide them with evidence of a return on their investment (IEG, 1997; Lough et al., 2000). As Pope (1994) argued, sponsors are beginning to expect a return on their signage dollars. Slattery and Pitts (2002, p. 153) stated that, “sponsoring companies are requiring more tangible benefits for their investments.” The authors went on to argue that often companies justify their sponsorship deals only on the belief that increased brand awareness can be achieved from the agreement, however, they may never really know whether or not this is happening. Therefore, objectives such as enhanced brand awareness need to be quantified and measured in order to ensure this corporate objective is being met from the sponsorship agreement. Several researchers (e.g., Meenaghan, 2001; Nicholls et al., 1999; Quester, 1997) have suggested that one of the measures of the commercial effectiveness of sport sponsorship is brand name awareness.

Likewise, Brooks (1994) suggested that one way to evaluate the effects that sport sponsorship has on spectators is to measure the communication effectiveness of the
sponsors’ messages (e.g., perimeter signage). She described measuring the communication effectiveness of sponsorship as “an evaluation of the message effect on the consumer” (p. 225). Brooks stated that sport properties can assess the communication effectiveness of sponsorship by measuring spectators’ awareness of the event’s sponsors. As was suggested by Sandler and Shani (1993, p. 41), “a first step in sponsorship effectiveness is the correct identification of a firm as a sponsor.”

However, Brooks (1994) noted that measuring the communication effectiveness of sponsors’ messages through awareness might be problematic because “a company is usually using other marketing and communication tools besides sponsorship. This makes it difficult to isolate the sponsorship element and measure its effect” (p. 225). For example, a spectator of an athletic event may have become aware of the sponsor through another promotional vehicle (e.g., a television advertisement) and not as a result of seeing the company’s sponsorship (i.e., signage) at the event.

Despite this limitation, there are ways to measure spectators’ awareness of sponsoring companies in order to determine the effectiveness of sponsor advertisements embedded within athletic events. In order to measure sponsorship advertising effectiveness, several researchers (e.g., Cornwell et al., 2000; Cuneen & Hannan, 1993; Dodd, 1997; Holbert, 1975; Lardinoit & Debraix, 2001; Nicholls et al., 1999; Pham, 1992; Pitts, 1998; Pope & Voges, 1994, 1997; Sandage, 1983; Shilbury & Berriman, 1996; Slattery & Pitts, 2002; Stotlar & Johnson, 1989; Turco, 1996) have typically relied on the use of recall and/or recognition tests. Slattery and Pitts (2002) suggested that “these methods are used to assess whether or not the awareness of the consumer is
increased enough so they can recall or recognize the sponsorship, company, or brand” (p. 154).

1.7 Intermediate Measures of Sponsorship Effectiveness: Recall and Recognition

Shilbury and Berriman (1996, p. 28) stated that “the most common form of measuring advertising [sponsorship] effectiveness is the use of intermediate measures such as recall and recognition testing.” These measures are often used in order to quantify and measure spectators’ awareness of an athletic event’s sponsors. In order to gauge spectators’ awareness of sponsors, numerous studies (e.g., Bennett, 1999; Cornwell et al., 2000; Cuneen & Hannan, 1993; Dodd, 1997; Harshaw & Turner, 1999; Lardinoit & Debraix, 2001; Nicholls et al., 1999; Pham, 1992; Pitts, 1998; Pope & Voges, 1994, 1997; Shilbury & Berriman, 1996; Slattery & Pitts, 2002; Stotlar & Johnson, 1989; Turco, 1996) have assessed fans’ ability to recall and recognize sponsoring company brand names found on perimeter signage. Perhaps the popularity of these measures stems from the fact that information on the recall and recognition of sponsors may have financial implications for sporting event organizers (e.g., athletic departments). As Turco argued, “sporting event organizers may gain considerable financial resources by quantifying enhanced recognition …of their advertisers as perceived by spectators” (p. 14).

Cuneen and Hannan (1993) stated that recall and recognition have been described as intermediate measures of sponsorship advertising effectiveness because they attempt to assess a consumer’s (e.g., a spectator’s) response to the advertising (e.g., sponsor signage) as opposed to direct measures, which assess a consumer’s action. Similar to Nicholls et al. (1999) and Park et al. (1988), who argued that awareness of a brand may
lead to a subsequent purchases, several researchers (e.g., Eagly & Chaiken, 1993; Preston, 1982) have suggested that recall and recognition are intermediate measures of advertising effectiveness because they may lead to a desired behaviour. Eagly and Chaiken suggested that retention of a message may influence a consumer’s subsequent behaviour (e.g., a purchase). Therefore, a spectator’s level of awareness, as measured by his or her ability to recall and/or recognize sponsoring companies’ brand names from perimeter signage, may lead the individual to purchase products or services from the sponsors’ brands.

For example, a study conducted by Shannon and Turley (1997) at an NCAA division 1 institution’s varsity men’s and women’s basketball games found that in-arena promotions (e.g., signage) influenced both the purchase intentions and purchase behaviour of spectators of an athletic event. The authors reported that of the 348 surveys that were used in the study, over 70% of respondents said that they would actually buy a product or patronize a company because it was advertised at the school’s basketball game (Shannon & Turley). Shannon and Turley found that “a majority (55.8%) of the respondents also reported that they had actually patronized a business or bought a product because of this promotional support” (p. 55). The authors used a recall measure to assess the level of patronage influenced by in-arena promotions. Shannon and Turley stated that, “when asked to recall a list those firms that they had patronized because of in-arena promotion at basketball games, 167 (48%) named one or more firm, 87 (25%) named two or more firms, 30 (8.6%) named at least three firms, and 5 (1.4%) respondents identified four firms” (p. 56).
While both recall and recognition measures test if traces of a sponsor's advertisement have entered into a spectator's memory (e.g., a brand name), they differ in how they are conceptualized and measured. Cuneen and Hannan (1993) stated that, "with recall testing, subjects are required to name advertisements strictly from memory and with no external influences. Recognition testing requires subjects to identify ads from a prepared list" (p. 39-40). Therefore, unlike recall testing where no help is given to aid spectators' memory, recognition tests simply require subjects to indicate whether or not they had been previously exposed to the advertisement (e.g., the sponsor's signage).

Although researchers (e.g., Pope & Voges, 2000) have argued that recall tests are a more powerful measure than recognition because they require a subject to retrieve a brand name from memory without any help, Du Plessis (1994) stated that recall tests often result in lower memory scores.

Aaker (1991) suggested that recall and recognition tests represent different levels of consumer brand awareness (see Figure 1.3). Higher levels of brand awareness (i.e., top of mind, brand recall) are associated with a greater likelihood of a purchase than when only lower levels (i.e., brand recognition) are achieved.
At the lowest level of the brand awareness pyramid is brand recognition. Aaker (1991) explained that brand recognition is a minimal level of brand awareness. Respondents are given a set of brand names and asked to identify those they had seen or heard before (Aaker). This test does not prove that the brand name has a dominant presence in a consumer’s mind because s/he is being aided in his/her effort to recall it (i.e., the brand name is present in the list). However, it may be very unlikely for a consumer to take action in the market place without at least being able to recognize the brand in question. As Aaker stated, “only rarely can a purchase decision occur without recognition” (p. 64).
According to Aaker (1991), brand recall is the next level of consumer awareness. The author stated that “brand recall is based upon asking a person to name a brand in a product class; it is termed ‘unaided recall’ because, unlike as in the recognition task, the respondent is not aided by having the names provided” (p. 62). Aaker argued that “unaided recall is a substantially more difficult task than recognition, and is associated with a stronger brand position” (p. 62). Therefore, brand recall occupies a higher level of brand awareness and may have a greater influence on consumer purchase decisions (Aaker). At the highest level of brand awareness is top-of-mind awareness. This level represents the first-named brand in an unaided recall task (Aaker). Aaker suggested that this is a special position because it is ahead of all other brands in a person’s mind.

1.8 Purpose of the Study

The underlying objective within this study is to answer the following question, “What factors influence spectators’ ability to accurately recall and recognize sponsoring company brand names from perimeter signage?” Therefore, the main purpose of this study is to examine the factors that influence spectators’ recall and recognition of embedded sponsorship stimuli (i.e., company brand names on perimeter signage surrounding the play area) at a Canadian University’s men’s basketball and football games. This study will present a conceptual framework for understanding the relationship between these factors and the recall and recognition of embedded sponsorship stimuli.

1.9 Study Framework

The following section outlines the conceptual framework for this study. This framework is in the form of a model that has been developed using concepts, theories, and empirical evidence from the sponsorship, marketing, advertising, psychology, and
sport management literature. In order to develop this model for understanding the various influences that impact spectators’ ability to recall and recognize sponsors of an event, modifications have been made to the original models developed by Pham (1992) and Cornwell et al. (2000). These studies will be discussed in further detail in Chapter Two.

While the framework for this study will be presented in the following sections, a detailed discussion of the various components including recall and recognition measures will be addressed in Chapter Two. Furthermore, the following sections provide the theoretical basis on which most of the research hypotheses for this study (which will be presented in Chapter Three) were developed (i.e., the nature and direction of the relationship between the study variables). Please refer to Figure 1.4 for an outline of this study’s framework.

Figure 1.4 A Framework for Understanding the Factors that Influence Spectators’ Recall and Recognition of Embedded Sponsorship Stimuli
1.9.1 Involvement with an event and Recall/Recognition

A spectator’s level of involvement with the athletic event should have a direct influence on the recall and recognition of embedded sponsorship stimuli. Celsi and Olson (1988) defined involvement as the sporting event’s perceived personal relevance to the individual. Researchers (e.g., Celsi & Olson; Mitchell, 1981; Pham, 1992) have suggested that a spectator’s level of involvement with an event can influence the amount of attention and cognitive processing that is directed at perimeter signage. For instance, Pham argued that at low levels of involvement, little attention is paid to the event as a whole and, because they are inlaid in the event, sponsorship stimuli should receive little attention. However, “as involvement increases more overall attention is paid to the event and also, as a result of their embeddedness, to the sponsorship stimuli” (Pham, p. 46). Therefore, the more attentional capacity that is directed at perimeter signage, the more accurate a spectator should be at recalling and recognizing sponsoring companies’ brand names from perimeter signage.

1.9.2 Involvement with an Event and Attendance at Games

Involvement with an event has not always been shown to have a significant influence on spectators’ recall and recognition of sponsorship stimuli (e.g., Cornwell et al., 2000; Lardinoit & Debraix, 2001; Slattery & Pitts, 2002). However, Cornwell et al. and Lardinoit and Debraix suggested that involvement does lead to more frequent attendance at athletic events. Cornwell et al. found that involvement with an event was positively related to attendance. Likewise, Lardinoit and Debraix noted in their study that involvement with an event is a central factor in bringing individuals to watch sports events more frequently.
1.9.3 Attendance at Games and Repeated Exposure

The framework shows that there is no direct link between attendance at games and repeated exposure to embedded sponsorship stimuli. Because sponsorship stimuli are embedded within the event, the more frequently an individual attends an athletic event the more times they will be exposed to sponsors’ perimeter signage. Therefore, there is no direct link between the two variables because attendance at games automatically leads to the exposure to sponsorship stimuli. Bennett (1999) supported this notion when he stated that “spectators attending a sponsored activity (a football match for example) are in a sense forcibly exposed to the sponsor’s advertisements” (p. 292).

1.9.4 Repeated Exposure and Recall/Recognition

The frequency of an individual’s attendance at an athletic event is important to this study’s framework because repeated exposure to perimeter signage enhances sponsor recall and recognition (Turco, 1996). Several researchers (e.g., Cornwell et al., 2000; Shilbury & Berrian, 1996; Slattery & Pitts, 2002; Turco) found that spectators’ recall and/or recognition of sponsors’ brand names found on perimeter signage increased from the beginning of a season to the end of a season. Other research (e.g., Bennett, 1999) has found that spectators who attend a greater number of games had significantly higher recall rates of sponsoring companies’ brand names than those who attended a fewer number of games. Bennett found that those spectators whom he categorized as committed supports (i.e., fans who attended a game at least once every two weeks) of a United Kingdom professional soccer team were able to name sponsoring companies’ brand names from perimeter signage more frequently than those fans in other attendance categories (i.e., fans who attended less games during the season).
1.9.5 Involvement with the Advertisement and Recall/Recognition

Petty and Cacioppo (1981) described involvement with an advertisement as the amount of perceived personal relevance that the advertisement has for the individual. Research supports the notion that a spectator’s level of involvement with sponsor advertisements (i.e., perimeter signage) can influence the amount of attention that is directed at them and how the sponsor ads are processed (e.g., Mitchell, 1980, 1981; Greenwald & Leavitt, 1984). Therefore, it can be speculated that individuals’ level of involvement with the sponsors’ signage may influence their ability to recall and recognize the company brand names found on them. For example, Petty, Cacioppo and Schumann (1983) found that subjects in their study who had high involvement with the advertisement recalled and recognized the brand name for this product more frequently than did individuals with low involvement with the advertisement. Likewise, Slattery and Pitts (2002) used theories consistent with involvement with an advertisement to help explain why sponsor brand names for food, beverage, and banking companies were recalled the most by spectators in their study. The authors stated that the spectators used these products almost on a daily basis. Therefore, Slattery and Pitts suggested that perhaps the frequent usage of these products makes the advertisements (i.e., signage) more personally relevant to individuals (i.e., they have high involvement with these advertisement).

Donthu, Cherian, and Bhargava (1993) found that highway commuters who were more involved with outdoor advertisements (i.e., billboards) had significantly higher recall and recognition than those with less involvement with these advertisements. Although Donthu et al. measured involvement with the advertisements’ influence on
respondents' recall and recognition of outdoor advertisements, it is speculated that similar findings could be observed in spectators' recall and recognition of perimeter signage. The results of this study will be described in greater detail in the literature review.

1.10 Sport Differences in Recall and Recognition

Although it is not included in the framework, this study will examine the differences between spectators' recall and recognition of sponsors' brand names from perimeter signage at two separate sporting events – a Canadian university football and basketball game. Stotlar and Johnson (1989) also examined these two sports at an American college and found significant differences in the recall and recognition of sponsors' brand names from perimeter signage between the two groups of spectators. The authors speculated that these differences could be explained by the speed of play at basketball and football games and how close spectators are seated in relation to the sponsors' signage at each sporting event. These differences will be discussed in further detail in Chapter Two.

1.11 Outline of the Proposal

This thesis is divided into five separate chapters. The first chapter provided background to the study and research questions. Also, this chapter stated the purpose of the study and established the conceptual framework for understanding the factors that influence spectators' recall and recognition of embedded sponsorship stimuli. Chapter Two will review the literature relating to the various components of the study's framework including recall and recognition measures (see Figure 1.4). This chapter will also review sport differences in sponsor recall and recognition. Chapter Three will discuss the sample, research design, and data collection procedures. Further, Chapter
Three will present the survey instrument that will be used in this study and the research questions and hypotheses. Chapter Four will present the results of the study including the characteristics of respondents (i.e., demographics), descriptive statistics for each question and scale in the surveys, and the results from hypothesis testing. Finally, Chapter Five provides a summary and interpretation of the study, implications for sport and recreation marketers, limitations of the study, and recommendations for future research.
CHAPTER TWO: LITERATURE REVIEW

2.0 Outline

This chapter will review the literature associated with the framework for understanding the factors that influence spectators’ recall and recognition of embedded sponsorship stimuli (i.e., company brand names from perimeter signage) that was outlined in Figure 1.4 of Chapter One. Each factor of the study framework will be addressed in the following sections. As well, literature related to factors that influence spectators’ recall and recognition of sponsors that are not included in the study framework will be discussed. These factors include the type of sponsorship (e.g., field versus television), the type of sport that an individual attends (e.g., basketball versus football games), and the effect of sponsorship clutter at athletic events.

2.1 Recall and Recognition

Measures of recall and recognition have been widely used by advertising researchers for decades in order to determine the effectiveness of advertisements. Wells (1964) noted that because there is no single measure of the effectiveness of an individual advertisement’s ability to generate sales, marketers and researchers typically rely on aided recall, recognition, and direct rating of advertisements by consumers to determine the advertisement’s effectiveness. Likewise, Zinkhan, Locander, and Leigh (1986) noted that recall and recognition tests have a long and detailed history of being indicators of advertising effectiveness.

The purpose of most advertisements is to persuade a potential buyer to consume a product or service. Thus, recall and recognition are intermediate measures of the potential effectiveness of advertisements because it is thought that a heightened level of awareness
(i.e., a consumer’s ability to recall or recognize ad stimuli) of a product or service will lead to a desired behaviour (e.g., a purchase) (Preston, 1982; Zinkhan et al., 1986). For example, a fan’s ability to recall or recognize a sponsoring company’s advertisement (i.e., a brand name) may subsequently lead the fan to purchase a product or service from the sponsoring organization. However, some researchers (e.g., Petty et al., 1983) have argued that recall and recognition should not be the sole measures of advertising effectiveness. For example, combining recall and recognition measures with a consumer’s attitude toward the advertisement and intention to purchase from the company may provide a better picture of the likelihood of a desired behaviour (e.g., purchase) than recall or recognition alone.

Recall and recognition tests are methodologies used by advertising researchers in an attempt to determine whether traces of an advertisement have entered into memory (Du Plessis, 1994). Both measures assess consumers’ memory for traces of an advertisement, however, recall and recognition differ in the way they are conceptualized and measured. Du Plessis (p. 76) stated that “both recall and recognition access memory for traces of commercials. The difference lies in the cueing of material.” Likewise, Bettman (1979) argued that the fundamental difference between the two measures is the presence or absence of a stimulus or cue.

2.2 Recall (Unaided) Methodologies

Hutchinson, Raman, and Mantrala (1994) described recall as a “top-of-mind awareness.” Recall testing gauges respondents’ ability to recall advertisement stimulus without the use of a prompt or cue to aid in memory recall. Pope and Voges (2000) argued that recall tests are more powerful than recognition tests because they require the
respondent to retrieve a company name from memory without any external cues. It may be argued that recall is a more “powerful” measure of memory when compared to recognition. However, as will be described in a latter section, Du Plessis (1994) argued that recall tests often result in lower memory scores.

One explanation for Du Plessis’s conclusions may be that recall tests require respondents to put more effort into memory processing of an advertisement stimulus as compared to recognition measures. For example, Lardinoit and Debraix (2001) argued that unaided recall involves a two-stage process requiring both retrieval and discrimination tasks and it depends on respondents’ availability and accessibility of information stored in memory. In contrast, Park and Hastak (1994) argued that, for the most part, recognition (aided recall) only depends on the availability of information in memory (i.e., only relies on discrimination tasks).

When a recall measure (of an advertisement) is used, the respondent must describe the advertisement without the advertisement being present. Turco (1996) described the measurement of recall as one where a consumer describes an advertisement (i.e., a brand name) without any help. To measure viewers’ recall of advertising messages during a televised football game, Pope and Voges (1997) asked each subject to “list on a blank piece of paper all brand or company names they recalled seeing during the match, either as a sign or as an advertisement during telecast” (p. 19). Similarly, Newell and Henderson (1998) measured recall of advertisements aired during the Super Bowl by asking respondents to “list and describe all the advertisements they remembered seeing during the game” (p. 242).
The previous examples of recall tests are ones in which respondents are given no help (i.e., absence of an external cue) when attempting to recall an advertisement. However, measures of recall have also been extended to include gauging consumers' memory retrieval of any advertisements within a specific product category. Sommers and Barnes (2003) stated that unaided recall of an advertisement included "asking people if they can remember seeing any ads within an identified product category" (p. 333). For example, Bennett (1999) assessed the unaided recall of respondents in his study. The author asked questions such as: "Can you recall having seen a poster for a fast food outlet; for a building society; a health drink; a brand of shaving razor; a brand of lager?" (p. 301). Although Bennett referred to these questions as prompted recall, they also are consistent with Sommers and Barnes' (2003) description of unaided recall. Similarly, Nicholls et al. (1999) used unaided recall of company brand names when they surveyed spectators of sponsored golf and tennis tournaments. Respondents were asked to "name the first brand of [category] that comes to mind" (p. 371). For their study, categories included, but were not limited to, airlines, automobiles, beer, soft drinks, and fast food (Nicholls et al.).

2.3 Recognition (Aided) Methodologies

Unlike recall measures, when recognition tests are used an external stimulus, cue, or prompt is provided to help aid memory recall (e.g., a list of advertisements or brand names to choose from). Recognition tests gauge respondents' ability to determine whether they have seen or heard the advertisement stimulus before. Recognition tests determine whether or not subjects can accurately identify advertisements among a list of choices including distractors or "dummy" advertisements (Turco, 1996). Studies using
recognition techniques will often use dummy advertisements or placebos (i.e., advertisements that were not present during the athletic event) in an effort to limit the impacts of respondent guessing (Cornwell et al., 2000; Pope & Voges, 1997). Dummy advertisements have also been used in order “to assess potential confusion between official sponsors and ambush companies” (Slattery & Pitts, 2002, p. 158). Typically, an ambush company is a non-sponsor that attempts to capitalize on the popularity or prestige surrounding an event by giving the false impression that it is a sponsor (IEG, 2003). Although measures are put in place to limit respondent guessing, some recognition measures may be susceptible to response bias. This issue will be discussed in a subsequent section.

Slattery and Pitts (2002, p. 155) stated that, “recognition studies require a participant to select a company from a list of potential sponsors. The subject reacts to the list or external cues, and identifies the previously seen or heard stimulus.” Peltier and Schilbrowsky (1992) stated that there are essentially three different ways to administer a recognition test. First, subjects can be given a ‘Yes’/‘No’ test where “subjects are shown a set of stimuli one at a time. For each item, subjects are asked to respond ‘yes’ if they have previously seen that item and ‘no’ if they have not. Typically, there is one distractor item in the original list of stimuli” (p. 94). A distractor item is the same as a dummy advertisement.

Second, subjects can be administered a Batch-Testing recognition test. With this test, all of the original ad stimuli and all of the distractor items are presented at the same time and respondents are asked to choose those items that they remember having seen before (Peltier & Schilbrowsky, 1992). Third, respondents can be administered a Forced-
Choice test. Peltier and Schilbrowsky (1992, p. 94) described this test as one where “subjects are asked to identify a previously seen stimulus from a list containing one or more distractor items. This task is repeated once for every item on the original list. Unlike batch testing, there is only one ‘correct’ response per set. When one distractor is used this is called a two-item test, when two distractors are used it is a three-item test, and so on.” With respect to Forced-Choice recognition tests, Singh, Rothschild, and Churchill (1988) argued that these “are most appropriate in reducing response biases because…the tendency to say ‘yes’ affects both the stimulus and distractors alike” (p. 74, footnote 2).

Pope and Voges (1997) utilized a batch-test of recognition when they measured viewers’ recognition of sponsor advertisements aired during televised football game. Pope and Voges showed subjects “a list of brand and company names, half of which did appear in the signage or advertising, half of which did not (placeboes)” (p. 19). Subjects were then asked to check off those they recognized as appearing during the match. Similarly, Harshaw and Turner (1999) utilized a batch-test questionnaire when they tested recognition of perimeter advertisements of televised Winston Cup events. The authors’ questionnaire contained “a list of 20 brand names from which the respondents indicated whether or not they remembered viewing the company’s logo or name in a perimeter sign” (p. 38). In this case, ten of the 20 brand names presented were distractor items that did not appear in the original televised stimulus.

2.4 Recall vs. Recognition

The value and use of recall and/or recognition tests as measures of memory have been subject to many debates throughout much of the advertising literature (Ambler &
Burne, 1999). Du Plessis (1994) stated that the debate over which of the two measures to use dates back to the 1930s when Starch and Gallup introduced recognition and recall tests as a means of measuring advertising effectiveness. These two measures have subsequently become confused with other measures of advertising effectiveness such as persuasion (Du Plessis, 1994). Zinkhan et al. (1986) suggested that much of the debate and subsequent research to refine the two measures was in response to the problems that exist within recall and recognition.

Wells (1964) concluded that recognition scores have little to do with memory. Instead, he felt that recognition scores represented a consumer’s subjective estimate that he or she had been exposed to an advertisement before. With respect to recall, Wells concluded that recall scores measure an advertisement’s ability to register a sponsor’s name and deliver a message to the consumer. Based on these two characteristics, Wells felt that recall scores are more objective, and therefore more trustworthy, than recognition scores. In addition, other researchers (e.g., Belch & Belch, 1993; Pope & Voges, 2000) suggested that recall measures are a more powerful form of testing because they require a participant to retrieve a company name from memory without any external cues.

However, researchers (e.g., Du Plessis, 1994; Krugman, 1977; Shilbury & Berriman, 1996; Singh et al., 1988) have claimed that recall tests are more difficult than tests of recognition and, consequently, this may result in higher recognition scores. For example, Du Plessis stated that recall will give lower measures than recognition “and people do not like low measures” (p. 79). Du Plessis concluded that visual unmasked recognition is always higher than recall. The author agreed with Krugman (1972) and
Singh et al. (1988) that “if one wants to ‘prove’ a higher presence of a commercial in memory, then recognition does this” (Du Plessis, p. 91).

Some researchers (e.g., Bogart, Tolley, & Orenstein, 1970; Gibson, 1983; Haskins, 1964; Ross, 1982; Zinkhan et al., 1986) doubt that recall measures have the ability to predict behaviour (e.g., purchase). In fact, these measures have been subject to many debates within advertising literature (e.g., Dubow, 1994a, 1994b, 1994c; Gibson, 1983, 1994; Ross, 1982, 1994). For instance, Gibson (1983) attempted to dispel the validity and use of recall to predict sales. However, the author failed to mention that while recall scores may not demonstrate a direct link to sales, an argument can be made that recall scores may represent a level of brand awareness which may subsequently lead to an intention to purchase and then to a behaviour (e.g., a purchase). In this sense, recall can be viewed as an intermediate measure of advertising effectiveness.

Although Gibson (1983) argued that persuasion was a better measure of advertising effectiveness in terms of sales, several researchers have suggested a positive and “modest” relationship between consumers’ recall ability and sales (e.g., Lamar, 1981; Stout, 1981; Tele-Research Inc, 1970). In contrast to Gibson, Dubow (1994a) proposed that the relationship between recall and sales does exist, however, it is curvilinear. He argued that, at some point, additional recall of a brand yields no benefit to sales.

In summary, researchers have argued that recall measures are unable to predict purchase behaviour (e.g., Bogart et al., 1970; Gibson, 1983; Haskins, 1964; Zinkhan et al., 1986), and that they elicit lower memory scores when compared to recognition measures (e.g., Du Plessis, 1994; Krugman, 1977; Shilbury & Berriman, 1996; Singh et al., 1988). Therefore, recall measures have been criticized for not being an adequate
measure of advertising effectiveness (Gibson, 1983). Indeed, Gibson (1983) stated that, “recall data are inherently weak” (p. 45).

Recognition measures have also fallen suspect to much criticism in the advertising literature. For instance, aided recall has been thought of as being an inflated measure of memory as it relates to advertising effectiveness. Krugman (1977) supported the notion that recall scores will always be lower than recognition scores. He stated that, “because the criterion of recognition is much more easily achieved than that of recall, it has been criticized for being less sensitive” (p. 9). Likewise, Singh et al. (1988) stated that recognition is more sensitive and discriminating when compared to recall and that recognition decreases over time.

Zinkhan et al. (1986) suggested that data collected from recognition tests are artificially high because of a response bias. Often, respondents may indicate that they recognize an advertisement that they were not exposed to in order to please the researcher or not to feel ignorant (Du Plessis, 1994). Singh et al. (1988, p. 74) stated that there is “the tendency of people to deny socially undesirable traits and to admit to socially desirable ones.” This tendency may also explain why respondents answer affirmatively when completing recognition tests.

Wells (1964) suggested that the debate between recall and recognition tests was unwarranted when he stated that, “to gauge interest in an advertisement, use the recognition method. To plum how meaningful the message is and how well the brand name registers, use recall. But to predict subsequent sales, just ask people to rate the ad” (p. 2). Wells (1964) felt that the choice to use recall or recognition measures was based
on the research question that is being answered and is not a case of which measure is ‘better.’

Krugman (1986) also attempted to shed some light on the continuing debate by describing an experiment measuring recognition and aided-recall of print advertisements that was conducted by the Advertising Research Foundation and the Alfred Politz organization in 1955. The study suggested that measures of recall and recognition were conceptually different, “and that one did not therefore have the simple choice of just which one was ‘better,’ or more reliable. That is in some situations you needed one or the other, and in some situations you need both” (Krugman, 1986, p. 83-84).

Kahneman (1973) suggested that the “situation” in which it is best to employ recall or recognition tests to gauge how easily an individual is able to access an advertisement from memory is a function of how much attention is paid to an advertisement. Krugman (1986, p. 84) stated that “the advertising reported in recall tests is for the most part only the advertising which elicits fairly close attention, whereas the advertising reported in recognition tests includes that too and also advertising which elicits minimal attention.” Recognition tests are better to use when minimal attention is given to an advertisement whereas, if close attention is paid, both recall and recognition tests can be utilized (Krugman, 1986). Because exposures to advertisements are often brief, Krugman (1986) concluded that measuring recognition memory “can reflect the impact of these minimal stimuli and should be studied and measured in order to provide a full appreciation and measure of the totality of advertising effects” (p. 86).

The notion of attention and its relationship to the use of recall and/or recognition may be related to whether exposure to an advertisement occurs within a laboratory setting
or in a "real world" or natural setting. Debraix (1995) stated that exposure to advertising stimulus in a laboratory or experimental setting is considered to be "forced exposure." Newell and Henderson (1998) suggested that the results attained in an experimental setting are inflated and therefore not valid within a natural (i.e., real world) environment.

Petty and Cacioppo (1981a) argued that forced exposure might lead to more central processing of ad stimuli. They argued that consumers who follow a more central route to processing an advertisement will, in turn, pay closer attention to the advertisement-content and contextual factors. Thus, it can be argued that, under forced exposure conditions researchers should use recall measures in order to determine advertising effectiveness. Conversely, when individuals are exposed to advertising stimuli in natural settings, ad processing takes on a more peripheral route (Petty & Cacioppo, 1981a). Individuals under these conditions may be less likely to process the information contained in the advertisement (e.g., brand name). For example, spectators of an athletic event may focus their attention to the action on the field or court and therefore, pay less attention to the sponsorship stimuli embedded within the event, thereby minimizing the amount of attention that is paid to advertisements. Under such conditions then, according to Krugman (1986), a recognition test would best indicate advertisement effectiveness. Petty and Cacioppo’s findings will be discussed in more detail in a latter section of this literature review.

With respect to the relationship between recognition and recall, Du Plessis (1994) provides an excellent explanation of the differences between the two separate methodologies. He states that "there is no theory that leads one to expect this:
Recognition and Recall are not measuring the same thing – both are measuring memory, but the difference lies in how they measure it” (p. 90).

2.5 Recall/Recognition and Sponsorship Stimuli

The effects of sport sponsorship stimuli on recall and recognition has been a major focus within sport sponsorship literature. More specifically, researchers have used recall and/or recognition measures in order to determine the effectiveness of sponsorship advertisement stimuli embedded within athletic events (e.g., Bennett, 1999; Cornwell et al., 2000; Cuneen & Hannan, 1993; Dodd, 1997; Harshaw & Turner, 1999; Lardinoit & Debraix, 2001; Nicholls et al., 1999; Pham, 1992; Pitts, 1998; Pope & Voges, 1994, 1997; Shilbury & Berriman, 1996; Slattery & Pitts, 2002; Stotlar & Johnson, 1989; Turco, 1996). Slattery and Pitts (2002) stated that recall and recognition are intermediate measures of sponsorship advertisement effectiveness used to assess whether or not consumer (i.e., spectator) awareness has increased enough so that an individual can recall or recognize the sponsorship, company, or brand.

Much of the sponsorship literature relating to recall and recognition measures has attempted to determine the factors that influence spectators’ recall and recognition of sponsorship advertisements. More specifically, researchers have attempted to understand how the following factors influence spectators’ recall and recognition of embedded sponsorship stimuli: level of involvement with the event/sport (e.g., Cornwell et al., 2000; Dodd, 1997; Lardnoit & Debraix, 2001; Pham, 1992; Slattery & Pitts, 2002), repeated/long-term exposure to sponsorship stimuli (e.g., Bennett, 1999; Cornwell et al., 2000; Shilbury & Berriman, 1996; Slattery & Pitts, 2002; Turco, 1996), the type of sponsorship such as television sponsorship versus field sponsorship (e.g., Lardnoit &
Debraix, 2001), effects of clutter (e.g., Cornwell et al., 2000), and comparing spectators’ recall of sponsorship stimuli at different sporting events (e.g., Nicholls et al., 1999; Stotlar & Johnson, 1989). The following sections will review the literature relating to these variables which have been used in order to gain a better understanding of sport sponsorship’s effects on recall and recognition.

2.6 Involvement

Involvement is widely used in the literature, however, there is no one agreed upon definition of the construct. Part of the problem in defining the construct of involvement within consumer behaviour research is that it has been used by a variety of researchers for several different purposes including: involvement with an advertisement (Greenwald & Leavitt, 1984; Krugman, 1965; Petty et al., 1983), involvement with products (Kassarjian, 1981; Zaichkowsky, 1985), involvement’s impact on the processing of advertisements (Celsi & Olson, 1988; Houston & Rothschild, 1978; Mitchell, 1980, 1981), and involvement with sporting events (Cornwell et al., 2000; Lardinoit & Debraix, 2001; Pham, 1992; Slattery & Pitts, 2002).

While there is no universal definition of involvement within the consumer behaviour literature, Celsi and Olson (1988) noted that most consumer researchers view the essential characteristic of involvement as an object’s (e.g., a sporting event’s) perceived personal relevance to an individual. In the absence of a widely accepted definition of involvement, Laaksonen (1994) classified the many definitions and uses of involvement into three distinct categories. Consistent with Celsi and Olson, Laaksonen stated that these definitions view involvement as the “the perceived relevance of an object to an individual” (p. 27).
Laaksonen (1994) described the first series of definitions as "cognitively-based." The author argued that "cognitively-based" definitions of involvement represent an individual's "perceived personal relevance of the object derived from the relative importance of the object-related attitude or consequence" (p. 34). Laaksonen considered the second series of definitions to be "individual-state" definitions of involvement. The author stated that these definitions "focus on the mental state of an individual evoked by a stimulus or stimuli when determining involvement" (p. 37). Laaksonen further argued that the common denominator among these definitions of involvement is that they all describe the motivational state of an individual. She concluded that this motivational state is an individual's "reaction to an environmental stimulus field and it is behavior-inducing in nature, i.e., it affects further the mental and behavioral responses of an individual" (p. 51). As will be described in a latter section, this motivational state (i.e., the level of involvement) may influence an individual's ability to process embedded sponsorship stimuli at athletic events. Laaksonen's third classification of involvement definitions known as response-based will be discussed in a latter section.

Laaksonen (1994) subdivided individual-state definitions into three distinct characteristics of an individual's mental state: stimulus centred, temporal-state, and enduring-state definitions. Much of the literature relating to involvement with a sporting event's influence on the recall and/or recognition of sponsorship stimuli has used or described definitions consistent with enduring involvement (e.g., Lardinoit & Debraix, 2001; Pham, 1992). Enduring involvement, according to Lardinoit and Debraix, "corresponds to a kind of genuine enthusiasm, a strong and solid interest that comes from the relevance of an object or subject for the individual. In the case of sports, it leads the
individual to watch events on television, and consequently, it increases the exposure of the viewer [or spectator] to the sponsor’s stimuli” (p. 170). Studies looking at enduring involvement with an event’s influence on the processing of advertising stimuli have been conducted by several researchers (e.g., Celsi & Olson, 1988; Houston & Rothschild, 1978; Mitchell, 1979, 1981)

Laaksonen (1994) argued that enduring-state conceptualizations are somewhat closely related to cognitive-based definitions and view involvement as “a more permanent or lasting state of an individual” (p. 48). Laaksonen placed concepts of enduring involvement in her cognitively-based and enduring-state classifications of involvement. For a summary of enduring involvement definitions consistent with Laaksonen’s cognitively-based and enduring-state classifications see Table 2.1.

Table 2.1 Definitions of Enduring Involvement by Category

<table>
<thead>
<tr>
<th>Classification</th>
<th>Definition</th>
<th>Researcher(s)</th>
</tr>
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<tbody>
<tr>
<td>Cognitively-based</td>
<td>“pre-existing relationship between an individual and the object of concern” The strength of this relationship depends on the individual’s prior experience with the product and the centrality of the relevant values”</td>
<td>Houston and Rothschild (1979. p. 3 as cited in Laaksonen, 1994)</td>
</tr>
<tr>
<td>Cognitively-based</td>
<td>“is a long term interest in and concern with the product which is independent of situational influence and is based on the strength of the product’s relationship to individuals needs and values”</td>
<td>Bloch (1981, p. 97 as cited in Laaksonen, 1994)</td>
</tr>
</tbody>
</table>
Enduring-state

“an individual difference variable representing an arousal potential of a product or activity that causes personal relevance”

Higie and Fecik (1989, p. 690, as cited in Laaksonen, 1994)

Adopted from Laaksonen (1994, p. 27, 37-38)

2.6.1 Involvement with a Sporting Event and its Impact on the Processing of Advertisements

Mullins (1985) suggested that sport is characterized by high levels of involvement. Therefore, it has been suggested that such involvement may increase interest in advertisements (e.g., Havitz & Dimanche, 1990; Zaichkowsky, 1985). For instance, some researchers (e.g., Richins & Block, 1986; Zaichkowsky; 1985) have looked at enduring involvement’s influence on the motivation to seek new information relating to an external stimulus (i.e., a sporting event). It has been speculated (e.g., Okechuku, 1992) that this motivation, in turn, may serve to enhance the performance of an individual’s memory relating to information stimuli (i.e., embedded sponsorship stimuli) contained within the event.

Richins and Bloch (1986) suggested that a subject (i.e., a spectator) with enduring involvement will look for any information that will increase his/her expertise. Likewise, Zaichkowsky (1985) stated that “high involvement consumers should be more interested in acquiring information about the product [sporting event] than low involvement consumers” (p. 347). She further argued that the motivation of an individual to gather and
process new information leads to a better knowledge of the domain. Lardinoit and Debraix (2001, p. 170) noted that this theory “was confirmed for various sports by a number of researchers, namely, Celsi and Olson, (1988, tennis), d’Ydewalle et al. (1988, soccer), and Pham (1992, soccer).” Okechuku (1992) believed that better knowledge of the domain (i.e., sporting event) would subsequently lead to the more effective performance of an individual’s (i.e. spectator’s) memory. Thus, in agreement with these researchers, Lardinoit and Debraix believed that the level of spectators’ enduring involvement with the sporting event would positively influence viewers’ ability to recall and recognize sponsoring company brand names.

Other researchers (e.g., Celsi & Olson, 1988; Houston & Rothschild, 1978; Mitchell, 1981) have attempted to understand how various antecedents or components of involvement impact consumers’ attention and cognitive processing of ad stimuli. It can be speculated that with better attention, and cognitive processing, one should be better equipped to recall and/or recognize the ad (e.g., sponsor signage) in question.

Houston and Rothschild (1978) defined their notion of “response involvement” as a function of two different types of involvement - situational and enduring involvement. Celsi and Olson (1988) modified Houston and Rothschild’s (1978) notion of response involvement by viewing the enduring involvement component, which Celsi and Olson refer to as intrinsic sources of personal relevance, as an antecedent in what they called “felt involvement.” The authors stated that felt involvement refers to “a consumer’s overall subjective feeling of personal relevance” (p. 211). Celsi and Olson suggested that felt involvement consists of intrinsic (i.e., enduring involvement) and situational sources of personal relevance. Therefore, consistent with Celsi and Olson (1988) and Houston
and Rothschild (1978), involvement with a sporting event can be understood by the combination of intrinsic (enduring) and situational sources of personal relevance.

Celsi and Olson (1988) explain that situational sources of personal relevance can include a wide variety of specific stimuli, cues, and contingences in a consumer’s immediate environment. For instance, at a sporting event, such elements as a close score in a game, a match between two rival cities, or a long anticipated championship game can increase or decrease a spectator’s perceived relevance of a certain game. The second antecedent to felt involvement is intrinsic sources of personal relevance. These sources of personal relevance are described by Celsi and Olson as “relatively stable, enduring structures of personally relevant knowledge, derived from past experience and stored in long-term memory” (p. 212). For instance, the degree to which an individual is involved with football, how important the sport is to them, and how much satisfaction is derived from being a fan of a University Football team are examples of intrinsic sources of personal relevance.

Celsi and Olson (1988) tested the effects of felt involvement on consumers’ attention and comprehension processes. As is consistent with Petty et al.’s (1983) predictions, Celsi and Olson believed that “consumers who experience greater felt involvement in an information processing situation [e.g., an athletic event] should have greater motivation to attend to and comprehend the salient information in that situation” (p. 213). Therefore, a spectator who experiences greater felt involvement with an athletic event should have greater motivation to attend to and comprehend relevant information which they are exposed to over the course of a competition.
Celsi and Olson (1988) also believed that individuals with high felt involvement exert more energy in their attention and comprehension processes than individuals with less felt involvement. The authors found that individuals with high felt involvement for the sport of tennis devoted more attention and exerted more effort in comprehending advertisements for tennis related products than did individuals with low felt involvement for the sport of tennis. Thus, it can be speculated that spectators who experience high felt involvement with a sporting event or team should be more apt at processing embedded sponsorship stimuli (i.e., perimeter advertising) when compared with spectators who experience less felt involvement with a given event or team.

However, one could still question the importance of sponsor signage relative to situation. For example, a spectator with high felt involvement may be more likely to attend to (i.e., pay attention to) a key free throw or a game winning goal as opposed to a billboard advertisement for a local restaurant. The fact that spectators may focus their attention on only one element of the game at a time (e.g., the movement of a player on the field or court) seems to be consistent with Kahneman (1973) who suggested that individuals possess limited cognitive capacity and therefore can only focus their attention on a limited number of stimuli in the environment. It is this idea that underlies Mitchell’s (1979, 1981) notion that involvement has a directional property with respect to the amount of attention and cognitive processing given to an ad stimuli.

Mitchell (1979) defined involvement as an “internal state variable that indicates the amount of arousal, interest or drive evoked by a particular stimulus or situation” (p. 194). Therefore, Mitchell (1979, 1981) believed that involvement had two separate dimensions, intensity and direction. He suggested that intensity and direction would exert
a different effect on the processing of advertisements. For example, while a spectator may be highly involved with an athletic event (i.e., intensity), the directional property of involvement may lead the individual to process only certain relevant stimuli in the environment which may not include embedded perimeter advertisements.

Although Mitchell’s (1979, 1981) studies attempted to understand an individual’s level of involvement (i.e., intensity and direction) toward advertisements, Pham (1992) suggested that his theory could be applied to better understand how spectators process embedded sponsorship stimuli at a sporting event. Pham felt that Mitchell’s (1979, 1981) intensity and directional properties of involvement would each exert a different effect on spectators’ processing of embedded stimuli.

Burnkrant and Sawyer (1983) suggested that the more an individual is involved with an object (e.g., sporting event) the more intense his/her processing of the object (e.g., event) will be. Likewise, Pham (1992) argued that the more a person is involved with a sporting event (i.e., higher levels of felt involvement) the more intense his/her processing of the game. Pham states that, “at low levels of involvement, little attentional capacity (effort) will be allocated to the event as a whole. Because they are inlaid in the event, sponsorship stimuli should also receive little attention. As involvement increases more overall attention is devoted to the event and also, as a result of their embeddedness, to the sponsorship stimuli” (p. 86).

It is important to note that Krugman (1965) suggested that even low involvement situations can influence a consumer’s perceptions of an advertisement (i.e., brand names or logos) gradually and with repeated exposures to the stimulus. Likewise, Janiszewski (1990) found that even non-attended ad stimuli are subconsciously processed and can
have an influence on consumers. For example, although a spectator’s attention may be focused on the game that is taking place on the court, ice, or field, one is still processing information contained within the ad stimuli (i.e., a sponsor’s brand name) albeit at a subconscious or peripheral level. It can be speculated that this type of processing may have an influence on memory retrieval if spectators are prompted to recall the names of the event’s sponsoring companies (i.e., if a measure of recognition is utilized).

With respect to Mitchell’s (1981) directional property of involvement, Pham (1992) suggested that at high levels of involvement with a sporting event, fans’ attention would become focused on only relevant information such as the action in the game itself. As Pham noted, this seems to be supported by Celsi and Olson’s (1988) finding that as involvement increases, more attention is focused on relevant source information. Therefore, due to spectators’ limited cognitive capacity (Kahneman, 1973), attention is drawn away from irrelevant information such as embedded sponsorship stimuli. In turn, the spectator has less opportunity to process the advertisement making it difficult to retrieve any brand information (i.e., brand name) from memory. Pham argued “at high levels of [felt] involvement attentional selectivity should overcome the positive effect of processing intensity on the processing of sponsorship stimuli” (p. 86).

Mitchell’s (1981) contention that involvement has a directional property seemed to provide the theoretical basis for Pham’s (1992) hypothesis and subsequent finding that the relationship between felt involvement and the recognition of embedded sponsorship stimuli (i.e., company brand names on perimeter signage) takes on an inverted-U form. This finding will be discussed in further detail in the following section.
2.6.2 Involvement with an Event and the Recall/Recognition of Sponsorship Stimuli

Several researchers (e.g., Bloxham, 1998; Cornwell et al., 2000; Dodd, 1997; Lardinoit & Derbaix, 2001; Meenaghan, 1998; Slattery & Pitts, 2002; Pham, 1992) have attempted to determine how the level of involvement with a particular sport, team, or event influences spectators’ recall and/or recognition of sponsoring companies’ brand names. Generally, researchers have postulated that a positive relationship should exist between an individual’s level of involvement with an event or sport and his or her ability to recall and/or recognize sponsorship stimuli (e.g., Cornwell et al., 2000; Lardinoit & Derbaix, 2001; Slattery & Pitts, 2002). However, this positive relationship has revealed minimal support from the research.

Pham (1992) hypothesized and found that the relationship between an individual’s level of involvement with a sporting event and their recall and recognition of sponsor brand names takes on an inverted – U form. The relationship Pham found was not a positive one. Pham believed that involvement could only increase to a point before recognition of sponsorship stimuli would begin to decline. The author suggested that at high levels of involvement with a sporting event, a spectator would become so engrossed and attentive to the game itself that the individual would pay little attention to irrelevant peripheral information (i.e., sponsor signage surrounding the play area). Pham stated that, “highly involved people are no longer ‘willing’ to process irrelevant billboards when watching a soccer game” (p. 86).

Conversely, Cornwell et al. (2000) proposed a continuous positive relationship between level of spectator involvement with an athletic event and sponsorship recall and recognition. The authors did not expect to find the inverted-U relationship consistent with
Pham’s (1992) findings because they used a more general assessment of involvement. Cornwell et al. explained that Pham measured involvement with a specific game that respondents had just watched, while their study was concerned with involvement with a typical game. Thus, Cornwell et al. stated that, “this general assessment of involvement with a game does not reflect the felt intensity of the event. It is likely to remain quite stable over time, and thus to affect the consumer’s interest in sponsors in a consistent manner” (p. 131). However, the authors found no direct link between level of involvement and spectator’s ability to recognize sponsorship stimuli.

Cornwell et al. (2000) measured involvement with basketball games using a six-point Likert scale ranging from “strongly agree” to “strongly disagree” developed by Unger (1981). The authors explained that, “this five-item scale measures the degree to which a person would willingly engage in an action, without coercion or obligation. It included statements such as ‘Watching a game totally absorbs me’, and ‘Watching a game helps me forget about my day’s problems’” (p.134). The authors were trying to keep the questionnaire short (i.e., three pages) therefore, it is possible that no direct link was found between involvement and the recall/recognition of sponsors because a five-item scale may be rather limited in scope and may fail to capture the construct of involvement with a typical game.

Similar to Cornwell et al. (2000), the current study will also adopt a more general assessment of involvement by measuring spectators’ involvement with a Canadian University’s men’s varsity basketball and football home games. McQuarrie and Munson’s (1986) Revised Personal Involvement Inventory (RPII) will be used to measure the construct of involvement with these events. This 14-item scale captures three
of Laurent and Kapferer’s (1985) involvement facets (antecedents). These facets will include the spectator’s perceived importance of the sporting event, the amount of pleasure derived from their attendance at a typical home basketball/football game, and the risk associated with their attendance at a game (the probability of making a mistake). The RPII, including the justification for the use of this scale will be discussed in greater detail in Chapter Three.

Other researchers (e.g., Lardinoit & Debraix, 2001; Slattery & Pitts 2002) have also found only minimal support for the positive relationship between involvement with an event and the recall and recognition of sponsors. For example, Slattery and Pitts concluded that their study of spectators of an American Collegiate football team “did not find, with any real level of confidence, that these highly involved spectators recognized the sponsors at significant levels” (p. 166). Lardinoit and Debraix found a positive interaction between TV and field sponsorship on recall when the audience was involved, however the authors stressed that “the effect is marginal” (p. 187).

2.6.3 Involvement with an Event and Attendance at Games

While not all research has shown that a direct relationship exists between involvement with an event and the recall and recognition of embedded sponsorship stimuli, some studies (e.g., Cornwell et al., 2000; Lardinoit & Debraix, 2001) have shown that spectators’ involvement with an event may lead to more frequent attendance at athletic events. Cornwell et al. (2000) found involvement to be a moderator variable between enthusiasm with sports and regular attendance at games. Therefore, because the authors demonstrated that involvement with an event may be positively related to attendance, it can be expected that individuals will be exposed to the sponsorship stimuli
with greater repetition. Repeated attendance to an athletic event may have a direct influence on the recall and recognition of sponsoring company brand names.

Likewise, Lardinoit and Debraix’s (2001) findings suggested that enduring involvement was a minor factor in terms of the effectiveness of sponsorship. However, the authors stated that, “involvement may, however, play a crucial role in promoting the effectiveness of sponsorship because it is a central factor in bringing the individual to watch the sports events, more frequently and for longer periods of time, and thus is instrumental in achieving and extending exposure to sponsors’ messages” (p. 185). Cornwell et al. (2000) and Lardinoit and Debraix showed that, although involvement with an event may not be directly related to recall and recognition, it may influence the number of games that are attended over the course of the season. Therefore, the more frequently a spectator attends an athletic event, the more exposures that individual will have to embedded sponsor advertisements (e.g., perimeter signage). It is speculated that repeated exposure to perimeter signage will positively influence spectators’ ability to recall and recognize sponsoring company brand names. This notion will be discussed in a subsequent section.

2.6.4 Involvement Theories and the Recall/Recognition of Sponsorship Stimuli

Slattery and Pitts (2002) noted that there has only been minimal sport sponsorship research using involvement theories. The authors concluded, from their research, that “there is a need for attention to and increased research using these [involvement] theories in sport sponsorship. [And] that the use of these theories will deepen the analysis, knowledge, and understanding that exist in the current state of literature in sport sponsorship” (p. 169). Thus, future research into involvement’s impact on recall and
recognition of sponsoring companies should be conducted to better understand involvement’s effects on brand awareness (i.e., recall and recognition). Cornwell et al. (2000, p. 139) argued that “it is entirely reasonable that involvement with the sport would not directly influence awareness of sponsors. It is possible that a different measure of involvement might show a more direct relationship.”

For instance, one area of involvement theory suggests that if an issue or message (i.e., an advertisement) is more relevant, then its importance to that individual increases (Petty et al., 1983; Petty & Cacioppo, 1981a). Slattery and Pitts (2002) related some of their findings to this theory by suggesting that companies with products of a higher relevance to their study participants resulted in higher recall rates. Slattery and Pitts found that food, money, and beverage companies were recalled with the most accuracy by subjects in their study. The authors suggested that perhaps this was true because these companies are needed and used daily by the study’s participants, and therefore, are more relevant to them. The authors stated that, “it is possible, then, that these study participants were recognizing relevant products (through company names) of use rather than identifying these companies based on the knowledge that they are actual sponsors of this event. This is certainly a question in need of further examination.” (p. 167).

Surprisingly, none of the aforementioned studies using involvement theories within a sponsorship context (e.g., Cornwell et al., 2000; Lardinoit & Derbaix, 2001; Pham, 1992; Slattery & Pitts, 2002) have attempted to understand viewers’ (i.e., spectators’) level of involvement with the sponsor advertisements themselves. This variable may have a positive and direct impact on the recall and recognition abilities of spectators of an athletic event. This notion will be discussed in the next section.
2.7 Involvement with the Advertisement

While individuals can be involved with a sporting event (e.g., Lardintoit & Debraix, 2001; Pham, 1992), several researchers (e.g., Celsi & Olson, 1988; Greenwald & Leavitt, 1984; Krugman, 1967; Mitchell, 1981; Petty & Cacioppo, 1981a, 1981b; Petty et al., 1983; Shimp, 1981) have studied consumers’ involvement with advertisements. Involvement with an event has been shown to influence the processing and attention given to advertisements. Likewise, a consumer’s level of involvement (e.g., high or low) with the ad stimulus itself can have an influence on the processing, attention, attitude formation, and memory retrieval of the advertisement or related brand information (e.g., Celsi & Olson, 1988; Greenwald & Leavitt, 1984; Mitchell, 1981). In addition, a consumer’s level of involvement with an advertisement has been shown to influence the recall and recognition of information contained within the ad (Donthu et al., 1993; Leavitt, Greenwald & Olbermiller 1981; Petty et al., 1983).

Much of the research into involvement with an advertisement can be traced back to Krugman (1965) who proposed that consumers have a level of personal involvement with an organization’s advertisement. The author described personal involvement not in terms of “attention, interest, or excitement but [as the] the number of conscious ‘bridging experiences,’ connections, or personal references per minute that a viewer makes between his own life and the stimulus” (p. 355).

As has evolved from Krugman’s (1965) explanation of personal involvement with an advertisement, Petty and Cacioppo (1981b) explained that most research within the area of involvement (high versus low involvement) is dependent on the amount of personal relevance that an advertisement has for the individual. Cesli and Olson (1988)
explained that an individual’s “motivation to process information has been conceptualized by most researchers in terms of [his/her] involvement with the informational stimuli” (p. 210).

2.7.1 Involvement with the Advertisement: Processing and Attitudes

Similar to how the level of involvement with an event influences an individual’s attention and processing of advertisements, a consumer’s level of involvement with the advertisement can influence how the information contained within the ad is processed and the subsequent attitudes that are formed towards the brand or advertisement (e.g., Celsi & Olson, 1981; Greenwald & Leavitt, 1984; Mitchell, 1981; Petty & Cacioppo, 1981a, 1981b; Petty et al., 1983; Shimp, 1981). Just as recall and recognition are intermediate measures of advertisement effectiveness, attitudes that are formed about an advertisement may also lead a consumer to a purchase action.

Petty and Cacioppo (1981b) found that an individual’s level of involvement with an advertisement influenced how he or she processed the information contained within the message and the attitudes that were formed as a result. The authors created conditions of high and low involvement with an advertisement (i.e., high or low personal relevance of the advertisement) by telling subjects that the product (shampoo) for the ad they were about to see would be available in their area of the United States (high involvement), or that the product would only be sold in Europe (low involvement). Subjects were told that their help was needed to evaluate the advertisement. Petty and Cacioppo speculated and found that under high involvement conditions message-content features of the ad (i.e., the specific arguments presented in the message) such as information about certain product characteristics or benefits, and store location were processed with more diligence.
Conversely, individuals in low involvement conditions processed the non-content features of the ad (i.e., the attractiveness of the ad) such as, size, images, and colours more effectively. The authors believed that these processing differences would impact subsequent consumer attitudes. More specifically, under the high involvement condition attitudes are formed from the message-content features, whereas under the low involvement condition attitudes are formed from non-content features.

Consistent with Petty and Cacioppo’s (1981b) findings, one could speculate that a spectator who has a high level of personal relevance with a sponsor advertisement at an athletic event might be more apt at processing the actual content of the message which may include a brand name or other brand information contained within the billboard advertisement. Thus, the spectator would form an attitude based on this information. In contrast, a spectator with low involvement with an advertisement is more likely to process non-content features of the advertisement and base his or her attitude on these characteristics (e.g., I did not like that advertisement because the print was too small).

Petty and Cacioppo’s (1981b) findings appear to be consistent with another paper written by Petty and Cacioppo (1981a) where the authors proposed their Elaboration Likelihood Model (ELM). This model suggested that the way in which a message is processed can influence the subsequent attitude toward the brand that is formed. The authors found that an advertisement can lead to an attitude change via two separate routes of message processing. More specifically, when an individual has a high level of involvement with an advertisement, message processing takes a central route. This central processing route to attitude change occurs “when persuasion results from thinking about the issue or arguments under consideration” (Petty & Cacioppo, 1981a, p. 262).
Laczniak and Carlson (1989) stated that when involvement in the processing of an advertisement is high, attitude toward the brand will be “formed after diligent considerations of the message points in the ad” (p. 303). The attitude will result from the message content that has been processed.

Petty and Cacioppo (1981a) believed that their second route to attitude change, the peripheral route, occurred under conditions of low involvement with a message. The authors stated that peripheral processing “results when persuasion results from non-issue relevant concerns” (Petty & Cacioppo, 1981a, p. 262-263). Petty et al. (1983) argued that the peripheral route to attitude change occurred when the change was not because the individual personally considered the pros and cons of the issue, but “because the attitude issue or object is associated with positive or negative cues” (p. 135). As an example of the peripheral route to attitude change, Petty et al. stated that, “rather than diligently considering the issue-relevant arguments, a person may accept an advocacy simply because it was present during a pleasant lunch” (p. 135).

Consistent with Petty and Cacioppo (1981a), Laczniak and Carlson (1989) argued that when low involvement with an advertisement exists, consumers pay more attention to the peripheral (i.e., non-content) aspects of the ad. Buchholz and Smith (1991) explained that “this type of processing occurs when uninvolved consumers lack the sufficient motivation to play close attention to message points” (p. 6). Thus, it can be speculated that individuals who take a more central route to processing a message (i.e., advertisement) may be better able to retrieve, from memory, information contained within the ad’s message content (e.g., a brand name) when compared to individuals who
have low involvement with a given advertisement (e.g., Mitchell, 1980). This speculation will be discussed in a latter section.

To explain the difference between the two types of message processing and how they lead to the formation of attitudes, Petty et al. (1983) used an example of an individual who intends (high involvement with the advertisement) or does not intend (low message involvement) to purchase a new refrigerator. The authors explained that “a person who is about to purchase a new refrigerator (high involvement) may scrutinize the product relevant-information presented in the advertisement. If this information is perceived to be cogent and persuasive, favorable attitudes will result, but if the information is weak and specious, unfavorable attitudes will result (central route)” (p. 138). Conversely, the individual who is not interested in purchasing a new refrigerator (low involvement with advertisement) “will not expend the effort required to think about the product-relevant arguments in the ad, but instead may focus on the attractiveness, credibility, or prestige of the product’s endorser (peripheral route)” (p. 138).

The central route and peripheral routes described by Petty and Cacioppo (1981a) and Petty et al. (1983) are similar to the brand information processing strategies that are deployed under conditions of high and low advertisement involvement described by Shimp (1981). The author stated that “the amount of arousal or interest [directed towards an ad] determines the degree of attention devoted to an advertisement and also influences the “processing strategy” (p. 10). Shimp found that one’s level of involvement with an advertisement influences the degree to which brand information (e.g., price, benefits of using the product or service) and non-brand information (e.g., message type, spokesperson, size of the print) is processed from the advertisement. Like Petty and
Cacioppo (1981a), Shimp believed that the way in which a message is processed would impact the subsequent attitudes that are formed by consumers. Moreover, Shimp suggested that the part of the advertisement that is processed (i.e., brand information and non-brand information) leads a consumer to potentially form an attitude towards the ad (e.g., I do not like that celebrity who is endorsing the product), to the brand (e.g., McDonald’s food is very affordable), or both.

Shimp (1981) believed that high involvement with the advertisement would lead to processing of both brand information and non-brand information which could potentially lead the consumer to form an attitude about both the brand and the advertisement (e.g., McDonald’s has affordable food, and I like Wayne Gretzky who is the restaurant’s endorser). When low involvement (i.e., strategy limited) with the advertisement is present within the consumer, little or no brand specific information is processed (Shimp). Thus, Shimp felt that low involvement would lead a consumer to only form an attitude towards the advertisement (e.g., I do not like Wayne Gretzky who is endorsing the product).

Mitchell (1981) stated that, “the two critical stages in the information acquisition process are attention and processing. These two stages will affect what information can be retrieved from long-term memory and the formation and change in attitudes” (p. 25). The discussion thus far has concentrated on how involvement with an ad can influence how an advertisement is processed and the subsequent attitudes that result. The next section will describe how a consumer’s level of involvement influences the processing of an advertisement in terms of the amount of attention directed towards the stimuli and the ability to retrieve information contained within the advertisement from memory.
2.7.2 Involvement with the Advertisement: Processing, Attention, and Memory

Mitchell (1981) described the conceptual framework for studying the influence that involvement with an ad has on the processing, attention, and retrieval of information from an ad stimulus by describing a story of an individual who is exposed to an advertisement for a fuel-efficient car. He explained that, at the time, this individual is planning on purchasing a small fuel-efficient car (high involvement with the advertisement). The author believed that this individual would be very interested in the product and would be searching for information about various alternatives (i.e., execute a brand processing strategy). Therefore, this person would probably devote full attention to the advertisement and be able to retrieve the information contained within the ad from long-term memory (Mitchell, 1981).

Mitchell, Russo, and Gardner (1980) and Mitchell (1980) attempted to determine if consumers who executed a brand processing strategy differed significantly from those who executed a non-brand processing strategy in the amount of attention directed towards the ad stimulus and their ability to retrieve relevant information about the ad from memory. Similar to Petty and Cacioppo’s (1981a) and Petty et al.’s (1983) notion of central and peripheral routes to message processing, Mitchell et al. explained that a brand processing strategy (central route) “involves the active processing of brand information from an advertisement to either form an evaluation of the brand or acquire knowledge information about the brand” (Mitchell 1981, p. 26). Conversely, a non-brand processing strategy (peripheral route) involved the processing of information to achieve some other goal such as the use of an attractive model to gain the attention of the consumer (Mitchell et al., 1980).
Mitchell et al. (1980) created the two processing strategy conditions by instructing subjects to either examine the advertisement to form an evaluation about the brand (brand processing strategy) or about the advertisement (non-brand processing strategy). The authors found that “subjects executing a brand processing strategy were better able to retrieve more product related information faster and at a greater level of accuracy than subjects executing a non-brand processing strategy” (Mitchell, 1981, p. 26).

Mitchell (1980) examined the how the type of processing strategy executed and the amount of attention paid to an advertisement influenced the long-term memory of an individual. Mitchell created two attention conditions. In the first condition, subjects were asked to execute a brand processing strategy. However, while watching the advertisement, red and blue lights flashed at random. Subjects were asked to raise their left hand when one of the two lights flashed. In the second condition, subjects were asked to count backwards by three’s from a three digit number while examining the ad. Mitchell found that individuals who executed a non-brand strategy and who paid less attention to an advertisement (i.e., the second attention condition) recalled significantly less information about the advertised brand than individuals who executed a brand processing strategy and paid more attention to the advertisement (i.e., first attention condition).

Using the results from this study, Mitchell (1981) suggested that there are three different types of information acquisition processes. The author found that one is caused by a high involvement condition (i.e., high interest levels in the advertised brand), and two are caused by a low involvement condition. Under the high involvement condition individuals devote all of their attention to the advertisement and execute a brand
processing strategy (Mitchell). Under the first low involvement condition, Mitchell explained that individuals will execute a brand processing strategy but will do so with reduced attention levels. The author suggested that the second low involvement condition occurred when individuals either execute a non-brand processing strategy or devoted little or no attention to the advertisement. While individuals may not completely comprehend the message under this condition, they will acquire some information about the brand (Mitchell).

Mitchell (1981) suggested that his three levels of processing should differ in the amount, content, and organization of brand information that enters into an individual’s memory. For instance, individuals in the second involvement condition who executed a non-brand processing strategy paid little or no attention to the ad (Mitchell). Therefore, one could speculate that individuals in this condition should be less able to recall relevant brand information when compared to those individuals in the first low involvement and the high involvement condition where individuals paid more attention to the ad and executed a brand processing strategy.

Mitchell’s (1980, 1981) research can be applied to a spectator of an athletic event who is highly involved with a sponsor advertisement that is embedded within the event. For instance, it can be speculated that a spectator who is highly involved with an ad would pay more attention to the ad and execute a brand processing strategy. Therefore, this individual should be better able to recall relevant brand information (e.g., a brand name from memory) than an individual with less involvement with (i.e., less interest in) the advertisement.
Greenwald and Leavitt's (1984) definition of 'audience involvement' is closely related to other researchers' (e.g., Mitchell, 1980, 1981; Petty & Cacioppo, 1981a, 1981b; Petty et al., 1983) notions of involvement with an advertisement. While other research has created conditions of high and low involvement with an advertisement (e.g., Mitchell, 1981; Petty et al., 1983), Greenwald and Leavitt's definition implies that an individual can progress through a series of involvement (i.e., with an advertisement) stages dependent on the amount of attentional and cognitive capacity directed at processing the advertisement. An individual can move from conditions of low to high involvement with an advertisement. The authors' construct of audience involvement was categorized in Laaksonen's (1994) response-based definitions of involvement. Laaksonen conceptualized this series of definitions as "an actualized response specified in terms of extensiveness and/or temporal pattern of mental and/or physical behavior devoted to a task of information processing and/or brand choice" (p. 62). Consistent with this conceptualization, Greenwald and Leavitt’s notion of audience involvement was defined by the researchers as "the allocation of attentional capacity to a message source, as needed to analyze the message at one of a series of increasingly abstract representational levels" (p. 591).

Similar to Mitchell's (1981) three levels of processing, Greenwald and Leavitt (1984) proposed that audience involvement with an advertisement can have four levels. Moving from low to high involvement these were: preattention, focal attention, comprehension, and elaboration. The authors suggested that these levels allocate increasing attentional and cognitive capacity needed to decipher a message. Greenwald and Leavitt felt that a movement from preattention to elaboration would involve
increasing amounts of attentional capacity and produce increasingly durable effects on memory. Lower levels (i.e., preattetion and focal attention) use relatively little capacity and the information processed at these levels can evoke a higher level of involvement (Greenwald & Leavitt, 1984). The information from an advertisement that is processed at low levels of involvement may subsequently lead an individual to move to a higher level of involvement processing (i.e., at the comprehension or elaboration level).

Preattention and focal attention can serve as a “stepping stone” to higher levels audience involvement with an advertisement (Greenwald and Leavitt, 1984). The authors explain that higher levels of audience involvement (i.e., comprehension and elaboration) “require greater capacity and result in increasingly durable cognitive and attitudinal effects” (Greenwald & Leavitt, p. 581). At higher levels, increasing attentional and cognitive capacity is required for more abstract analysis of incoming information (Greenwald & Leavitt). For a description of each level, amount of capacity required, and the associated cognitive and attitudinal effect on the consumer, please refer to Table 2.2.
Table 2.2 Level of Audience Involvement, Attentional and Cognitive Capacity, and Associated Cognitive and Attitudinal Effect.

<table>
<thead>
<tr>
<th>Level of Audience Involvement</th>
<th>Amount of Attentional and Cognitive Capacity Required</th>
<th>Cognitive and Attitudinal Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preatention</td>
<td>Uses little capacity</td>
<td>Stimuli receive extensive immediate analysis that produces little or no lasting effect.</td>
</tr>
<tr>
<td>Focal attention</td>
<td>Uses modest capacity to focus on one message source, and to decipher the message’s sensory content into categorical codes (object, name, word).</td>
<td>Familiar stimuli are perceived categorically as separable, identifiable objects (figure, rather than background), and unfamiliar stimuli establish sensory memory traces.</td>
</tr>
<tr>
<td>Comprehension</td>
<td>Further capacity is required for comprehension, which analyzes speech or text by constructing a propositional representation of it.</td>
<td>A message can establish traces at the propositional level of representation.</td>
</tr>
<tr>
<td>Elaboration</td>
<td>Uses still more capacity to enable the integration of message content with the audience member’s existing conceptual knowledge.</td>
<td>Produces substantial freedom of memory and attitude from the specific details of the original message or its setting.</td>
</tr>
</tbody>
</table>

Adapted From: Greenwald & Leavitt (1984, p. 584, 587-588)

Greenwald and Leavitt’s (1984) level of focal attention is most applicable to research in the recall and recognition of embedded sponsorship stimuli. It is at this level that the authors believed a consumer would be able to “decipher the message’s sensory content into categorical codes (object, name, word)” (p. 584). Thus, in order for a
spectator to process a sponsoring company’s brand name and retrieve it from memory, he or she must have attentional and cognitive capacities consistent with this level of involvement.

In an earlier study conducted by Leavitt, Greenwald, and Olbermiller (1981) the authors suggested that, even when a consumer is at low levels of involvement with the advertisement, the advertisement could still have an impact on his or her memory. The authors speculated that at the focal attention level where minimal encoding of information contained within the advertisement occurs, consumers would still be able to retrieve specific information from memory using recognition or some cued recall. Conversely, Leavitt et al. felt that at the elaboration level (i.e., high involvement), consumers could retrieve information from the advertisement under conditions of free recall (i.e., no prompted help). This belief seems to be aligned with Krugman’s (1967) suggestion that it is best to use tests of recognition under conditions where minimal attention is given to the advertisement and when much attention is paid, it is best to use recall tests.

In addition, based on Greenwald and Leavitt’s (1984) description of the four levels of audience involvement, it becomes apparent that perhaps high order levels such as comprehension and elaboration may not be applicable to studying the factors that effect the recall and recognition of sponsoring companies’ brand names. For instance, sponsor signage that surrounds athletic events only contains brief informational stimuli (e.g., a brand name, the name of a product, a store location). Therefore, these ads may not require the amount of attention and cognitive capacity associated with comprehension or elaboration levels. The capacity required to process information at these levels of
Greenwald and Leavitt’s audience involvement may be more applicable to advertisements containing more than a few words or phrases, which are not typically the case for embedded perimeter sponsor advertisements. For instance, Harshaw and Turner (1999) noted that, because fewer words in the text of outdoor advertisements has been shown to translate into higher recall rates (e.g., Bhargava, Donthu, & Caron, 1994; Donthu et al., 1993), messages contained in sponsorship signage must be clear and concise. Thus, it is important to explore research (e.g., Petty et. al., 1983) aimed at determining how levels of involvement with an advertisement impact the recall and recognition of less complex message-content features such as a brand name.

2.7.3 Involvement with the Advertisement: Recall and Recognition

A study conducted by Donthu et al. (1993) attempted to determine the factors that influence highway commuters’ unaided (recall) and aided recall (recognition) of outdoor advertisements (i.e., billboards). The authors found that respondents who were more involved with outdoor advertising paid more attention to them and had higher recall and recognition than those less involved with outdoor advertising. Donthu et al. stated that, “only respondents’ involvement with viewing outdoor advertisements had an impact on their aided and unaided recall of ads” (p. 71). While Donthu et al.’s findings appear to be in support of the framework proposed within the current study, they should be treated with caution. For instance, the authors used only a single item to measure involvement with the outdoor advertisements.

To measure respondents’ involvement with viewing outdoor advertisements, Donthu et al. (1993) asked respondents to indicate the amount of attention they paid to outdoor advertisements on a scale for one (not much attention paid to the ads) to four
(much attention paid to the ads). By measuring the involvement construct in this way, the authors suggest that the amount of attention given to an advertisement is also a measure of involvement with that particular advertisement. However, there are some conceptual flaws with measuring involvement with the advertisements by asking respondents how much attention they paid to them. For example, although a consumer may direct much of their attention to an advertisement, they may not have found the ad to be personally relevant, important, valuable, or interesting. Therefore, despite paying attention to the advertisement, the consumer may not have been very involved with the advertisement.

Cuneen and Hannen (1993) found that spectators of an LPGA tournament who used products or services from some of the event’s sponsors (e.g., a fast food franchise) recognized ads for these companies more frequently than did non-users. Likewise, Slattery and Pitts (2002) speculated that the sponsors who were recalled/recognized the most (through company names) in their study represented advertisements for products that spectators used on a regular basis. Slattery and Pitts found that food, beverage, and banking companies were recalled with the most accuracy in their study. The authors speculated that this result occurred because advertisements (i.e., sponsor signage) for these products were of high relevance to their sample population. For example, Slattery and Pitts believed that because individuals regularly consume products from food, beverage, and banking companies they become highly involved (i.e., have high personal relevance) with advertisements relating to these products. Petty et al. (1983) provided evidence that appears to be consistent with Slattery and Pitts’s speculation.

Petty et al. (1983) created conditions of high and low involvement with a fictitious Edge disposable razor advertisement while exposing subjects to a magazine.
Subjects in the high involvement condition were told that they would be allowed to choose a particular brand of disposable razor for participating in the study. Conversely, subjects in the low involvement condition were told that they would be able to choose a brand of toothpaste. To further enhance the condition of high involvement with the Edge razor ad, subjects were told that the advertisement and product would soon be test-marketed on the West Coast and in their city of residence. Subjects in the low involvement condition were told that the product and advertisement was being test-marketed only on the East Coast and not in their city of residence.

Petty et al. (1983) also created famous and non-famous endorser conditions (peripheral cue). In the famous endorser conditions, a headline accompanying the advertisement read “Professional Athletes Agree: Until you try new Edge disposable razors you’ll never know what a really close shave is” (p. 139). This advertisement featured the pictures of two popular golf celebrities. Subjects in the non-famous endorser condition had a headline that read “Bakersfield California Agrees: Until you try new Edge disposable razors you’ll never know what a close shave is” (p. 139). This advertisement featured pictures of average looking individuals who were unfamiliar to the subjects.

To test free recall ability, the authors asked subjects to list all of the products for which they saw ads and all of the brand names they encountered. Petty et al. (1983) then measured recognition of the Edge brand name. The authors told subjects that they had seen an advertisement for a disposable razor and asked them to select the correct brand name from a list of seven different brands, six of them being distractor or “dummy” brands (Gillette, Wilkinson, Schick, Edge, Bic, Schaffer, and Remington). Petty et al.’s
method of measuring recognition is consistent with Peltier and Schilbrowsky’s (1992) definition of a batch-test recognition test.

Petty et al. (1983) found that the subjects in each of the involvement conditions (high/low) and in the famous/non famous endorser conditions significantly differed in their free recall and recognition of the Edge Brand name. For instance, the authors found that increasing involvement with the advertisement served to enhance the recall of the product category and the free recall of the brand name of the specific product advertised. Individuals in the high involvement condition recalled the brand name “Edge” with greater accuracy when compared to individuals in the low involvement condition. Petty et al. stated that, “involvement [with the advertisement] affected free recall of the brand name of the product, increasing it from 42 percent in the low involvement conditions to 60 percent in the high involvement conditions” (p. 142).

Whether or not the subject was exposed to a famous endorser and their level of involvement, when taken together, seemed to impact subjects’ brand name recognition ability. With respect to the endorser manipulation, Petty et al. (1983) explained that “on the measure of brand name recognition, an interaction pattern emerged. Under low involvement, the use of famous endorsers reduced brand name recognition from 85 to 70 percent, but under high involvement, the use of famous endorsers improved brand name recognition from 77 to 87 percent” (p. 142). The authors went on to explain this phenomena by suggesting that “people may be more likely to notice products in low involvement ads when they feature prominent personalities, but because of the enhanced attention accorded the people in the ads and the general lack of interest in assessing the merits of the product (due to low involvement), reductions in brand recognition may
occur” (p. 142). With respect to the increase in brand recognition Petty et al. observed in the high involvement condition, the authors argued that “when people are more interested in the product category, they may be more motivated to assess what brand the liked personalities are endorsing” (p. 142).

Based on Petty et al.’s (1983) findings, one could speculate (e.g., Slattery & Pitts, 2002) that the more involved a spectator is with any given sponsor advertisement embedded within the event, the better his or her ability to recall and/or recognize the sponsoring company brand name. However, it is important to note that Petty et al. created conditions of high and low involvement in an experimental setting and only used one brand category (i.e., shaving) when conducting the study. In contrast, a natural setting, such as an arena, will have several advertisements for a variety of products and services. Thus, it is difficult to say with confidence that similar results will be found for embedded sponsorship stimuli at an athletic event.

Petty et al. (1983) measured involvement with a single advertisement. However, the current study will measure involvement with all of the sponsors’ advertisements (i.e., perimeter signage) that are present at an athletic event. Zaichkowsky’s (1990) Personal Involvement Inventory for Advertising (PIIA) will be utilized to determine spectators’ level of involvement (i.e., high versus low) with sponsors’ signage. The PIIA, including the justification for the use this scale will be discussed in greater detail in Chapter Three.

Petty et al. (1983) demonstrated that high levels of involvement with an advertisement will lead to significantly better accuracy in the recall and recognition of specific information contained in the message (e.g., a brand name). However, other researchers (e.g., Greenwald & Leavitt, 1984; Krugman, 1967; Leavitt et al., 1981) have
shown that under conditions where low involvement or minimal attention towards an advertisement exists, memory can be impacted with repeated exposures to the ad stimuli. Leavitt et al. (1981) stated that “in most cases, high-involving advertising messages should be more effective than low-involving ones because the former should be remembered” (p. 18). However, the authors felt that there were theories which could lead a researcher to expect that low-involving messages can be effective with repeated exposures.

Leavitt et al. (1981) stated that “the aim of establishing a simple schema in the audience’s memory can be achieved by means of repetition when there is only minimal encoding” (p. 18). Greenwald and Leavitt, (1984) explained that in the focal attention level of involvement (i.e., low) a category (e.g., brand names) becomes recognizable with subsequent exposures. This suggestion lends itself nicely to the hypothesis that repeated exposure to an advertisement (e.g., sponsor signage) can increase the recall/recognition even if the subject is not completely attending (i.e., highly involved) to the ad. The effects of repeated exposure to sponsorship stimuli will be discussed in further detail within the following sections.

2.8 Exposure to Sponsors’ Perimeter Advertisements

Sandage and Fryburger (1975) argued that any consumer who is able to see or hear an advertisement could be considered exposed to that advertisement. Moreover, McGuire (1968) noted that because of their embeddedness, fans attending a football game had no option but to look at perimeter advertising. McGuire felt that this served as a reminder of sponsoring organizations and represented a source of subliminal company perception. Likewise, Bennett (1999) explained that since sponsor signage is located
around the perimeters of playing areas, spectators of athletic events are exposed to them whenever the focus of the game moves in particular directions. Bennett argued that spectators are also exposed to perimeter signage before the game, during intermissions, and when attention wanders during unexciting periods of play.

Bennett (1999) suggested that “the emotional circumstances in which perimeter posters and/or sponsoring company’s other promotional messages are observed might affect recall and message impact” (p. 293). For instance, it has been concluded (e.g., Wright, 1981) that audiences find it difficult to remember brief advertisements (e.g., perimeter signage) when they are exposed to them in distracting situations. There is no question that athletic events are filled with possible distractions (e.g., an obnoxious fan, loud music or cheering, live entertainment, or the consumption of food and beverages). In addition, some researchers (e.g., Marshall & Cook, 1992) felt that spectators can become so preoccupied with the event that they fail to absorb sponsor advertisements. This notion seems to be consistent of Pham’s (1992) finding of an inverted - U relationship between spectators felt involvement with the event and the recognition of perimeter advertisements.

However, other researchers (e.g., Bennett, 1999; Nebenzahl & Hornik, 1985) have argued that an exciting game or a full stadium can provide a favourable high-involvement medium in which commercial communications can be transmitted. Thus, an energetic environment such as this may positively influence recall/recognition of perimeter advertisements (e.g., a sponsoring company brand name). For instance, Nicholls et al. (2000) suggested that sponsors recognize that spectators at a sports event are exposed to promotional messages under favourable conditions where there is enthusiasm,
excitement, and enjoyment. The authors argued that, “consumers at sports events tend to be relaxed and naturally receptive to viewing that event” (p. 369). Thus, they also may be receptive to the sponsorship advertisements embedded within it.

Bennett (1999) suggested that the atmosphere of a sporting event “is one of excitement, close identification with a particular team and perhaps thereby a predisposition to accept influence: spectators are frequently exposed to perimeter posters [signage] and because the latter are seen in a pleasant environment, more notice might be taken of them than in other situations” (p. 294). Bennett argued that people who choose to attend a sporting event go there to support their favourite team, and therefore, the visual images (e.g., perimeter signage) experienced during the event are more likely to be retrievable from memory than those observed in less emotional environments.

Sandage and Fryburger (1975) suggested that exposure to advertisements could be either voluntary or involuntary. Voluntary exposure to advertisements allows the consumer to choose whether or not he or she will be exposed to the stimuli. For instance, television advertising can be viewed as voluntary exposure because the consumer can change the channel or leave the room if they do not wish to be exposed the ad stimulus. Conversely, an environment such as an athletic event may lead to more involuntary exposure to advertisements (Harshaw & Turner, 1999). Sandage and Fryburger explained that involuntary exposure occurs when a consumer is exposed to an advertisement but did not make the decision to be exposed to it. Likewise, Harshaw and Turner felt that advertisers at sporting events “receive some involuntary exposure because the spectators view the event for the sporting action, not the advertising” (p. 36).
Harshaw and Turner's (1999) belief is consistent with other researchers (e.g., Bennett 1999; McGuire 1968) who have argued that spectators have no choice but to be exposed to perimeter advertisements. It is for this reason that IEG (2003) argued that sponsorship is an effective marketing medium. Unlike traditional forms of advertising (e.g., television), where consumers may not pay attention to ads or avoid them all together (e.g., change the channel, leave the room), sponsorship stimuli (e.g., perimeter signage) is embedded right into the action taking place on the court or field. Therefore, the more times an individual attends an athletic event, the more times they will be exposed to sponsors messages.

Krugman (1972) argued that consumers needed to be exposed to an advertisement three times before they would take action in the marketplace. The author noted that the first exposure to an advertisement occurs when the individual first sees or hears the advertisement. Krugman felt that this first exposure was an attempt by the person to understand the advertisement. The second exposure involved the individual questioning whether or not the advertisement was personally relevant (Krugman). As described earlier, Petty et al. (1983) found that the more personally relevant an advertisement is to an individual, the better his or her ability to recall/recognize the company's brand name. Krugman argued that the third exposure served as a reminder of the product to the consumer. It is important to note that the three exposures suggested by Krugman are not necessarily absolute exposures. The three exposures may not occur in succession but rather, an advertisement may not become personally relevant to a consumer (i.e., Krugman's second exposure) until, for example, the tenth actual exposure to the
advertisement. Thus, the subsequent exposures serve as the third exposure, reminding consumers about the product or service.

2.8.1 The Effects of Mere Exposure

Orbermiller (1985) stated that “mere exposure refers to a positive repetition - affect relationship that results from exposure [to an advertisement] alone” (p. 18). As has been mentioned, spectators of an athletic event have no choice but to be exposed to sponsorship stimuli because it is embedded or incorporated right into the game itself (IEG, 2003). Nevertheless, fans often devote most of their attention to the action taking place on the playing area, and as a result, very little attention and processing is directed at perimeter signage (Marshall & Cook, 1992; Pham, 1992). However, researchers (e.g., Franzen, 1994; Krugman, 1965) have argued that learning (e.g., a spectator’s ability to recall and recognize sponsoring company brand names) can still occur with limited processing when there is repeated exposure to the ad stimulus. Franzen suggested that advertisements mentally processed at the subconscious level can, with repetition, still produce an effective response. For example, Janiszewski and Mayvis (2001) stated that “it is generally accepted that repeated exposure to an advertisement can influence liking for an advertisement and for the brand names and product packages included in the advertisement” (p. 18). Obermiller suggested that “such effects are often categorized as mere exposure effects” (p.17).

Bennett (1999) stated that, “stimuli arouse, via mere exposure, feelings of familiarity, attraction and positive attitudes, even in the absence of cognitive processing and conscious assessment of messages” (p. 294). Therefore, although spectators of an athletic event may not put a great deal of effort into cognitively processing sponsor
messages, it can be argued that repeated exposure to the perimeter signage (i.e., frequent attendance at the athletic event), may have a positive influence on brand name recall and recognition. Bennett stated that, “a substantial body of empirical literature supports this proposition that the repeated exposure of an individual to a stimulus will, of itself, enhance that person’s familiarity with an liking for the stimulus” (p. 294).

However, some researchers (e.g., Berlyne, 1977; Harrison, 1977; Zajonc, 1968) have argued that the relationship between number of exposures and learning takes on an inverted - U form. To explain this inverted - U hypothesis, Bennett (1999) stated that “repeated exposure to a stimulus eventually causes the observer to learn to expect to receive the message as a matter of course. Once “learning” (i.e., perceptual recognition and recall) has occurred then further repetition leads to satiation: expectations are confirmed; the message is ‘taken for granted’ and ceases to be meaningful as it is crowded out by other (unexpected and perhaps more interesting) stimuli” (p. 294).

Therefore, at some point, further exposures to an advertisement might actually decrease brand name recall (Bennett, 1999). In an attempt to find out at what point this decrease begins, Borstein (1989) analyzed the results of 208 studies conducted on mere exposure effects from 1968-87. The author concluded that recall began to decrease after ten to 20 exposures. However, these studies likely measured mere exposure effects on traditional advertising (e.g., magazines, television) therefore, these findings may not be applicable to sponsorship stimuli.

2.8.2 Repeated Exposure and the Recall/Recognition of Sponsorship Stimuli

Many researchers (e.g., Bennett, 1999; Cornwell et al., 2000; Harshaw & Turner, 1999; Shilbury & Berriman, 1996; Slattery & Pits, 2002; Turco, 1996) have attempted to
determine the effects of repeated exposure to sponsorship stimuli on recall and/or recognition of brand names. Comwell et al. (p. 138) stated that “repeated exposure plays a crucial role in understanding the recall and recognition of sponsors.” It has been speculated (e.g., Bennett; Comwell et al.; Harshaw & Turner; Shilbury & Berriman; Slattery & Pits; Turco) that the more one is exposed to sponsorship stimuli (e.g., signage embedded within an athletic event) the better able (i.e., with more accuracy) that individual should be at recalling and/or recognizing sponsor company brand names. Comwell et al., (p. 130) stated that “it may be expected that the more one is exposed to an event with embedded sponsorship stimuli, whether it be by attending the event or by following the event in broadcast media, the more likely they will be to recall and recognize its sponsors.” As with involvement, the effects of repeated exposure to sponsorship stimuli have revealed varying results and at times have shown the effects of repeated exposure to advertisements on the recall and recognition of sponsors to be negligible.

Some studies (e.g., Cornwell et al., 2000; Shilbury & Berriman, 1996; Slattery & Pits, 2002; Turco, 1996) have looked at the long-term impact of exposure to sponsorship stimuli on recall and recognition. These studies utilized a pre- and post-test method for comparing recall and recognition abilities of spectators. In these studies spectators were given a recall and/or recognition test at the beginning and end of the season. In both instances, respondents were asked aided and/or unaided questions about sponsoring company brand names. The data was then analyzed in order to assess the changes in recall and/or recognition over the course of the season.
Shilbury and Berriman (1996) surveyed supporters of the St. Kilda Football Club. Spectators were administered a sponsor recall and recognition test at the beginning and end of the season. The authors found only slight increases in the recall and recognition of sponsor brand names over the course of the season. A study of spectators of a men’s NCAA Division I basketball team conducted by Turco (1996) found that recognition accuracy improved from pre- to post- for seven of eight courtside sponsors. Accuracy percentage increases of actual advertisers ranged from 3.1 to 19.9. From these results, Turco speculated that, as the frequency of exposure to names and logos increases, it “can increase product awareness and may subsequently lead to loyal product consumption by spectators” (p. 14). However, the fact that spectators are aware of sponsors of an athletic event has not always been found to lead to loyal product consumption (e.g., Lyberger & McCarthy, 2002).

Cornwell et al. (2000) hypothesized that “individuals’ experience (viewing, attending or listening to games) will have a positive influence on the long term recall and recognition of sponsorship stimuli embedded in the event” (p. 130). The authors found strong support for this hypothesis. Cornwell et al. noted that spectators’ level of experience with the event (i.e., the number of games involving the local basketball team they had attended in person, watched on television, or listened to the radio during the current season) emerged as a “clear predictor of sponsorship recall and recognition” (p. 138).

A study conducted by Slattery and Pitts (2002) had findings comparable to the Shillbury and Berriman (1996) and Turco (1996) studies. The authors surveyed season ticket holders of an American Collegiate football team at the beginning and end of a four-
month season. The authors found only slight increases in the groups' recall rates of sponsors. While respondents' recall rates of brand names increased over the course of the season, statistically significant changes were found for only three sponsoring companies.

Some researchers (e.g., Bennett, 1999) have looked at the frequency of fan attendance and its influence on the recall and/or recognition of sponsorship stimuli embedded within the event. Turco (1996) stated that, "previous research has shown that repetitive ad exposure enhances advertiser recall and recognition" (p. 12). Likewise, Bennett (1999) argued that the repeated exposure of an individual to a stimulus (i.e., sponsor signage) will enhance that person's familiarity with and liking for the stimulus.

Bennett's (1999) study seemed to confirm the findings of previous research, as described by Turco (1996), that recall of advertisement (i.e., sponsor signage) increased with repeated exposures. Bennett, in his study of spectators of a United Kingdom soccer league, found that committed supporters were better able to recall advertising on perimeter posters than those who were categorized as occasional supporters. More specifically, committed fans who were asked prompted recall questions (e.g., Can you recall having seen a poster for a fast food outlet?) were better able to accurately recall sponsor names than less committed supporters (Bennett). Bennett stated that, "committed supporters (i.e., people exposed to the messages on more-or-less a fortnightly basis [once every two weeks] up to that point in the season) specified those companies/brands which had in fact been advertising on perimeter posters in the ground under consideration more often than fans in other attendance categories in 14 out of 18 cases" (p. 304). Similar results were found when questions about perimeter posters were unprompted (e.g., Can you name any firm/brand on perimeter posters?). Here, "committed supporters leaving
the stadium correctly named firms/brands that were actually advertised on perimeter posters more frequently on average than did regular or occasional fans in 15 out of 18 categories" (p. 307).

It is important to note that while Bennett (1999) used prompted methodologies, he only measured unaided recall. Bennett’s prompted questions did not require respondents to indicate if they had been exposed to the ad stimulus before (i.e., the questions did not include the actual sponsoring companies or any distractors) as is consistent with much of the recognition literature. Bennett’s study may have revealed different, and even more significant, results if he would have used a true measure of recognition as opposed to unaided recall.

2.9 Other Factors Influencing the Recall/Recognition of Sponsorship Stimuli

Thus far, much of the discussion relating to factors that influence recall/recognition of sponsoring company brand names has focused on involvement with an event, involvement with the advertisement, and repeated exposure to the advertisement stimulus as is consistent with the study framework. However, other researchers have used different variables when attempting to determine the effects of sponsorship on spectator’s recall/recognition of perimeter signage. For example, some factors that have been explored are: the type of sponsorship, such as television sponsorship versus field sponsorship (e.g., Lardnoit & Debraix, 1996), effects of clutter (e.g., Cornwell et al., 2000; Pham, 1992), and comparing spectators’ recall of sponsorship stimuli at different sporting events (e.g., Nicholls et al., 1999; Stotlar & Johnson, 1989). The following sections will review the literature relating to these variables which have
been used in order to gain a better understanding of sport sponsorship’s effects on recall and recognition.

2.9.1 Type of Sponsorship and Influence on Recall/Recognition

Lardinoit and Debraix (2001) stated that there are two different types of sport sponsorship – field and television. Pham and Vonhuele (1997, p. 407) defined field sponsorship as “messages that are limited to the brand name or to a few words summarizing the brand’s positioning platform.” Field sponsorship most commonly refers to the sponsor signage that surrounds the playing area of many athletic events. Television sponsorship stimulus are announcements that are shown “outside traditional commercial breaks (i.e., during the opening and end of credits) of broadcasts of televised sports events or with the promotion of such a program (promotional bumpers)” (Lardinoit & Debraix, p. 169).

Lardinoit and Debraix (2001) argued that there are differences between the two forms of sponsorship in terms of their impact on an individual’s memory. For instance, it has been argued that exposure to field sponsorship stimuli results in less attention being directed towards the stimulus and does not provide viewers with much opportunity to process the ad (Lardinoit & Debraix). This lack of attention results, in large part, because viewers’ attention may be focused more on the play action than on the embedded sponsorship stimuli. Conversely, television sponsorship is a format in which “the viewer’s attention is focused for a few seconds on the television sponsorship stimuli only, giving viewers more opportunity to process the stimuli and allowing better learning” (Lardinoit & Debraix, p. 169). Thus, television sponsorship does not refer to the advertisements that are run during the commercial breaks of a sporting event (i.e.,
television advertising) although these companies may still be sponsors of the event. Television sponsorship occurs when brand names or logos are displayed before going to, or coming back from, traditional commercial breaks during the telecast (Lardinoit & Debraix, 2001). For example, Canadian Tire uses a television sponsorship format to promote their association with the Super Bowl. Here, the Canadian Tire logo and brand name are the only image displayed on the television screen before play begins following a commercial break. Lardinoit and Debraix suggested that under a television sponsorship format, more attention is paid to the advertisement because all other distractions and sponsorship clutter caused by the event are absent.

It is thought that because this sponsorship format (i.e., television) allows for ‘better learning,’ because attention is focused solely on the ad on the screen, it should translate into better brand name recall (Pieters & Bijmolt, 1997). Lardinoit and Debraix (2001) hypothesized, and found, that television sponsorship has a greater influence on viewers’ recall and recognition of sponsor brand names when compared to field sponsorship (i.e., signage embedded within the event). However, Lardinot and Debraix found that field sponsorship had a significant and positive influence on recognition (aided recall) only. This finding seems to be in agreement with Krugman’s (1986) suggestion that it is best to use a test of recognition when minimal attention is paid to an ad stimulus.

2.9.2 Effects of Clutter on the Recall/Recognition of Sponsorship Stimuli

Cornwell et al. (2000) stated that, “articles in the business press have discussed the declining value of sponsorship as a communication tool” (p. 131). The authors felt that this ‘declining value’ was due to the effects of advertisement clutter at athletic events. Cornwell et al. noted that clutter and confusion have been commonly cited as
inhibiting a sponsor’s ability to present a strong image (e.g., Levine & Thurston, 1992; Miller, 1996).

Cornwell et al. (2000) suggested that, although the term clutter was originally associated with television advertising, its impact could be applied to live spectators of an athletic event as well as to those who watch the event on television. Given the number of mediums that convey sponsor messages (e.g., scoreboards, perimeter advertisements, half-time shows, and blimps that fly above spectators) there is no question that an athletic event can be a distracting environment whether one is watching it on television or attending the game in person (Cornwell et al.). This notion led the authors to speculate that “individuals’ perception of advertising and sponsorship clutter during games will have a negative influence on the long-term recall and recognition of sponsorship stimuli embedded in the event” (p. 132).

To test the influence of promotional clutter on spectators’ recall/recognition of embedded sponsorship stimuli, Cornwell et al. (2000) developed a three-item scale to evaluate the perceptions of sponsorship/advertisement clutter. The authors explained that “these items estimated the likelihood of respondents to ignore promotional messages and to feel overwhelmed by promotional messages” (p. 134). However, Cornwell et al. found little evidence that the three-item scale adequately captured the domain of the clutter construct.

Overall, Cornwell et al. (2000) found relatively weak evidence to support their hypothesis that sponsorship clutter does have a negative influence on spectators’ recall and recognition of embedded sponsorship stimuli. The authors noted that it was encouraging that the results of the relationship between clutter and the dependent variable
(i.e., sponsorship stimuli recall and recognition) were in the expected negative direction. However, Cornwell et al. stated that this finding needs to be interpreted with caution "given the poor psychometric properties of the new measure employed" (p. 139).

Cornwell et al. (2000) felt that the three-item scale used in their study did not fully capture the construct of clutter. At the time of Cornwell et al.'s study, a refined measure of sponsorship clutter did not exist. Therefore, future studies examining the impact of clutter become problematic from a methodological standpoint (Cornwell et al.). The authors argued that "future research should seek to develop a better measurement of clutter that would be useful in a variety of sports-related venues" (p. 139). Perhaps part of the problem in refining such a measure is that clutter can be expanded to include distractions other than the amount of advertising at a given event. Clutter could also include such distractions as a rowdy fan, an important phone call, or noisy children interrupting an exciting game on television. Therefore, in the absence of a sponsorship specific measure of clutter, the present research will exclude the notion of clutter from its analysis of the factors that influence the recall and recognition of embedded sponsorship stimuli.

2.9.3 Sport Differences in Recall/Recognition

Some researchers (e.g., Nicholls et al., 1999; Stotlar & Johnson, 1989) have compared sponsor recall and recognition accuracy between spectators attending two separate sporting events. In order to determine whether the type of sport that individuals attend impacted the recall of sponsor brand names, Nicholls et al. examined differences in spectators' brand recall at sponsored golf and tennis tournaments. The authors found that only two of the six brands that were advertised at both the golf and the tennis event
had significantly different recall accuracy among spectators of the two tournaments. For example, Nicholls et al. indicated that “Cadillac had a higher proportion of brand recall at the golf tournament, 10.2 per cent versus 4.0 per cent, while American Airlines evidenced a higher proportion of brand recall at the tennis tournament, 24.0 per cent versus 14.7 per cent” (p. 377). The other four brands showed no consistent pattern which led the authors to question the wisdom of dividing corporate resources between two different events, except for the intention of reaching a greater target audience (Nicholls et al.).

There are two reasons which might explain why Nicholls et al. (1999) found only minimal differences when comparing spectators of the tennis and golf tournaments on the recall of sponsor company brand names. First, the authors used unaided recall techniques (i.e., respondents are only presented with a brand category when recalling sponsor brand names). This measure has been shown to reveal lower accuracy rates when compared to recognition measures (e.g., Du Plessis, 1994). Perhaps if a recognition test was used to compare brand name awareness at both of the events, more significant differences may have been found. Second, the sponsors of the tennis and golf tournaments were large transnational corporations which probably already have high levels of brand name awareness among spectators of both events. Therefore, the fact that these companies advertised at each of these events may not have impacted spectators’ unaided recall to the degree necessary to show significant differences between the two groups.

Unlike Nicholls et al. (1999), who measured recall of sponsors at professional golf and tennis tournaments, Stotlar and Johnson (1989) tested spectators’ recognition of stadium advertising in selected NCAA Division I football and basketball programs. When
comparing the two sports, the authors found that football spectators noticed stadium advertising more often than basketball spectators did. However, when spectators were asked to select the advertisements they had seen in the stadium (i.e., recognition accuracy), the results indicated that basketball spectators were more accurate than football spectators in selecting the correct advertisements that they were exposed to during the games (Stotlar & Johnson). Stotlar and Johnson found that “of the responses from football stadiums, 63.1% correctly identified the advertising; the accurate selection of advertisements was higher among the basketball spectators at 77.1%” (p. 97).

Stotlar and Johnson (1989) found these results to be counter intuitive. For instance, football spectators were more likely to notice stadium advertisements than basketball fans were. The authors found this result “to be somewhat of an anomaly in that basketball fans are closer to the ads than football fans are” (p. 99). However, Stotlar and Johnson did suggest that football spectators might have been more likely to notice advertisements than basketball fans because the ads were larger in football stadiums than in basketball arenas. In addition, the authors expected to observe higher recognition accuracy of stadium advertisements in football spectators than basketball fans. Stotlar and Johnson argued that, “although it was easier to recognize advertising at football games because the amount of time between plays as opposed to the more nonstop action of basketball, the accuracy rate was higher in basketball arenas” (p. 99).

Stotlar and Johnson's (1989) results did not support their original speculation that recognition accuracy should be higher in football spectators. However, one could still hypothesize that a greater amount of time in between plays allows football fans more time to process perimeter signage when compared to spectators attending basketball
games, where the action of the game moves much faster. Thus, football spectators should be better able to recall and recognize sponsoring company brand names from perimeter signage (i.e., with greater accuracy) than those individuals attending basketball games.
CHAPTER THREE: METHODS

3.0 Outline

This chapter describes the survey research that was used in this study and is divided into five sections. First, the research design will be discussed including the study participants and their compensation for participation in the study, the selection of the events, and the data collection procedures. Second, the data collection instruments that were used in this study and the justification for the inclusion of the scales used in the instruments is outlined. Third, the methods used to pre-test the survey instruments and the pilot study that was conducted are discussed. Fourth, the methods that were used to analyze the data are outlined. Finally, the research questions and their associated hypotheses are presented.

3.1 Research Design

The following section outlines the basic research design. The participants used for this study, and their compensation for participation in the study, are discussed. Further, the selection of two of the University’s varsity athletic events (i.e., a men’s basketball and football home game) are outlined and justified. Third, the procedures that were used to collect the data are described.

3.1.1 Study Participants

A purposive sample was used for this study. Participants for this study consisted of spectators attending a large Canadian University’s men’s football and basketball home game. The two athletic events were sanctioned by Ontario University Athletics (OUA). Permission of the University’s Director of Athletics and Recreational Services to survey spectators at each of these events was granted prior to the start of the study. Data
collection procedures for this study were discussed with Jim Hagen, the University’s athletic department marketing director and Chris Gilbert, the athletic department’s promotions manager. These individuals had extensive knowledge of each of these athletic events in terms of the anticipated number of spectators, stadium/gym logistics (e.g., sponsors of the event, location of sponsors’ signage, number of stadium/gym exits), and fan behaviour while at the event (e.g., when spectators begin to leave).

Typically, there are between 1000 and 4000 spectators at the University’s home football games, and between 300 and 1500 spectators at home basketball games (J. Hagen, personal communication, May 21, 2003). There is a wide range of possible spectators at these events because some of the games are played against rival schools or are promoted as being part of a special event (C. Gilbert, personal communication, May 21, 2003). At this University, football or basketball games that are played against a strong competitor, or that are part of a special event (e.g., homecoming, alumni day, children’s autograph day), tend to draw a larger number of spectators.

Approximately 3500 spectators were expected to attend the University’s football game and 300 spectators were anticipated to be in attendance for the basketball game (J. Hagen, personal communication, May 26, 2003). In actuality, 2893 spectators attended the football game and approximately 328 were in attendance at the University’s basketball game. At the football game, a total of 294 spectators (10.16% of all those who attended the game) were given a survey to complete before leaving the stadium grounds. Of these, 277 surveys were completed and retained for data analysis. The remaining 17 surveys were incomplete and could not be used for any statistical purposes. At the basketball game, a total of 85 spectators (25.91% of all those who attended the game)
were given surveys to complete as they left the University’s Gym. Of these, 81 surveys were completed and retained for data analysis. The remaining four surveys were incomplete or were biased in such a way that they could not be used for any statistical purposes.

There were a total of 18 research assistants present at the football game. At this event, each assistant recruited an average of approximately 16 spectators to complete the questionnaire. Given the speed at which the surveys were administered and the relatively short length of time available to collect the data at this event (i.e., most of the 2893 spectators in attendance left the stadium very quickly and at the same times, beginning at the half time break and at the end of each subsequent quarter) no formal response rate was calculated. Similarly, at the basketball game, there was a total of 14 research assistants recruiting participants and administering surveys. On average, each assistant at this event handed out 6 surveys in total. Given the speed at which data was collected and the short amount of time available to collect the data (i.e., the majority of the 328 spectators left the Gym very quickly, either at the half-time break or at the completion of the game) no response rate was calculated.

It was felt that the number of surveys that were distributed by each research assistant was feasible given the relatively short length of the survey instrument, the number of spectators in attendance at each of these games, and the number of assistants who administered the survey. Research assistant selection, training, and methods for the recruitment of the study participants will be discussed in greater detail in a later section.

For this study, the University’s athletic department staff were omitted from the sample population in order to avoid any response biases (Slatterly & Pitts, 2002). The
survey instruments were designed to assess spectators’ memory of the events’ sponsors. Therefore, it was expected that individuals who work in the University’s athletic department might have prior knowledge of which companies are sponsors of the events. This knowledge may serve to aid memory recall and inflate the intermediate measures of recall and recognition.

3.1.2 Compensation and Retention

In order to encourage individuals attending the football game and basketball game to participate in the study, potential respondents were informed that those who completed the questionnaire would be given a free ticket to any future home football game (i.e., for those respondents attending the football game) or basketball game (i.e., for those respondents attending the basketball game) as well as gift certificates for two local restaurants (i.e., a pizza establishment and a pub). The tickets were provided by the University’s athletic department and were valued at eight dollars each (J. Hagen, personal communication, June 23, 2003). The pizza establishment and pub that donated the gift certificates were sponsors of the sporting events examined within this study. When participants completed the survey and returned it to the research assistant, they received an envelope containing an event ticket and two gift certificates.

3.1.3 Selection of the Events

The decision to conduct the study at one of the University’s home football and basketball games was made for several reasons. First, the athletic department does not keep a formal record (i.e., name, address) of the individuals who attend any of their varsity home games. Therefore, it was necessary to conduct the study on-site because a database of names and addresses to contact spectators (e.g., by mail) of these events was
not available at the time of data collection (e.g., there was no database of season ticket holders). Second, as has been noted in Chapter One, much of the research into the recall and recognition of sponsorship signage has been conducted in large American colleges and at professional sporting events. Therefore, conducting this study at Canadian University athletic events should offer a new perspective for the sponsorship literature. Third, the University’s varsity football and basketball games appeal to a large number of spectators comprised of students, alumni, employees of the University, faculty, friends and family of the competing athletes, as well as individuals from the surrounding community which provided a strong mix of participants on which to base the results of the study. Furthermore, it was anticipated that interest in these two events would be fairly strong. The football game was played against one of the University’s long-time rivals and was promoted as an alumni event. The basketball game was played against a school that has historically been a very strong competitor in the league. Therefore, these home games provided a large sample population of spectators to draw from. Fourth, the decision to conduct the study at a football and basketball home game was made because it allowed for a between sport comparison of spectator recall and recognition.

3.1.4 Data Collection Procedures

An on-site survey at each sporting event was conducted in order to collect the data for this study. Therefore, there were two separate data collection dates. The first date was the University’s home football game that took place on September 20, 2003. The second date was the basketball game that was played on November 26, 2003. On both of these dates the University’s football and basketball team was playing their third home game of the season. In addition, respondents were exposed to all sponsors’ brand names on
perimeter signage regardless of where they sat in the stadium or gym (refer to Appendix A and B for a diagram of how the signage was displayed at the football and basketball game respectively). Ethics clearance was obtained prior to collecting the data at each sporting event (refer to Appendix C and D for a copy of the ethics approval that was granted by the Brock University Research Ethics Board and by the University of Waterloo’s Office of Research Ethics respectively).

Research assistants for this study consisted of 18 student-athletes who were members of the University’s varsity figure skating team. Permission for these individuals to help in the study was granted by the University’s Director of Athletics and Recreational Services as well as by the team’s captain. Prior to the two data collection dates a meeting was held in order to train the research assistants how to administer the survey. Research assistants wore similar clothing bearing the University’s athletic logo so that they could be easily identified by potential study participants. Further, it was felt that the similar attire brought credibility to the study, in part, by showing its affiliation with the athletic department.

A message was read to spectators by the public address announcer at the end of each quarter of the football game and during breaks in play at the basketball game. These announcements explained some of the details of the study (e.g., that study participants would be required to fill out a questionnaire, participation in the study was voluntary, incentives, length of time needed to complete the questionnaire, location of research assistants) and invited spectators to participate in the project (refer to Appendix E and F for a copy of the announcement read at the football and basketball game respectively). As was anticipated, spectators began to leave during the half-time breaks at the football and
basketball games. Upon leaving the stadium or gym, spectators were approached by trained research assistants at random and asked to complete a brief survey questionnaire. Research assistants used the same verbal script to recruit potential participants (refer to Appendix G for the verbal script used by research assistants in this study).

Research assistants worked simultaneously and were located at each exit of the stadium and gym as well as in the surrounding parking lots (at the football game only). A similar procedure was employed by Stotlar and Johnson (1989) who administered a recognition questionnaire to college basketball and football spectators at a division 1 institution in the United States. Research assistants were given a clipboard containing questionnaires and incentives and were situated at the exits/surrounding parking lots of the stadium and gym prior to the start of each event’s half time break.

At the time of data collection, research assistants were located at each exit so that they were out of sight of the playing areas. In this way, respondents were not able to see any of the signage while completing the survey. A similar procedure was used by Shannon and Turley (1997) when they assessed the influence of in-arena promotions on spectators’ purchase intentions and purchase behaviours at a division I institution’s basketball games in the United States. In addition, tables with questionnaires were set up at each of these exits of the stadium and gym so that spectators, who were not approached by a research assistant with clipboards, could fill out the survey. One research assistant was assigned to each table to administer the survey questionnaires. Respondents completed the survey on-site and returned it to the research assistant.

Respondents were given an information letter explaining the details of the study (e.g., voluntary participation, types of questions, length of time to complete the
questionnaire, ethics approval) prior to receiving the instruments (refer to Appendix H for a copy of the information letter). Once respondents returned the questionnaire to the research assistant they were given an envelope containing their incentives for participating in the study. Also included in this envelope was a feedback letter that explained the purpose and hypotheses of the study. As well, this letter provided the contact information of the student investigator and the Universities’ research ethics boards if participants had any questions about the manner in which the research was conducted or if they wished to be informed of the study’s results (refer to Appendix I for a copy of the feedback sheet). Similar to Shannon and Turley’s (1997) study, once respondents completed the survey, returned it, and received their envelope containing the feedback letter and incentive, research assistants then asked each subsequent person who passed by to respond to the survey.

3.2 Data Collection Instruments

The following section outlines the survey instruments that were utilized in this study. As well, this section will provide justification for the use of various scales (i.e., when more than one scale was available). The instruments were designed to measure the various constructs in the study’s framework presented in Figure 1.4 in Chapter One and were used to determine if there are between sport differences in spectators’ recall and recognition of embedded sponsorship stimuli. Further, the surveys allowed for a comparison of respondents’ recall and recognition scores in order to determine which type of testing reveals a higher measure of sponsor awareness (i.e., which of the two intermediate measures revealed greater respondent accuracy rates in terms of correctly identifying companies as sponsors of the athletic events).
Two separate versions of the survey instrument were developed so that there was one for each sporting event (i.e., the football and basketball game). The surveys were identical, however, the wording of the questions was applicable to spectators attending either the football or basketball game. The instruments were distributed on the day of the football game (September 20, 2003) and basketball game (November 26, 2003) and consisted of five parts (refer to Appendix J and K for a copy of the surveys that were distributed at the football and basketball game respectively).

The survey instruments were designed to be relatively short in length so that spectators who were in a rush to leave the stadium or gym were still able to participate in the study. In a similar study conducted by Cornwell et al. (2000) on spectators and television viewers of a university basketball team in the United States, the authors kept their questionnaire to three pages. Respondents required between five and seven minutes to complete Cornwell et al.’s questionnaire. This relatively brief survey, as well as groups of trained research assistants working simultaneously, allowed Cornwell et al. to collect 222 usable questionnaires during only “a brief period of time” (p. 133). The survey instrument used in this research was designed to be as short as possible in order to obtain a reasonable sample size. Each questionnaire was five pages in length and took spectators between five and seven minutes to complete.

The first part of the survey asked respondents to complete demographic questions. For example, respondents indicated whether they were male or female, their age, what team they were there to support, and their association with the team/university (i.e., alumnus of school, currently enrolled student, friend of a participating player, team booster, relative of a participating player, former team participant or a University
employee). These demographic questions were based on the NCAA Championship patron questionnaire outlined in Mullin et al.'s (2000) sample surveys. Although demographic differences on spectators' recall and recognition will not be analyzed within this study, it was felt that by having respondents fill out demographic type questions first would make them more comfortable with the surveys' questioning. For example, spectators may have been less inclined to complete the survey if the first question of the survey asked them to remember and list all of the sponsors' brand names they were exposed to (from stadium or gym signage) over the course of the event.

The second part of each instrument assessed spectators' memory of sponsoring companies' brand names using the intermediate measures of recall and recognition. First, the survey assessed spectators' brand name recall of sponsors' perimeter signage (i.e., embedded sponsorship stimuli). Similar to the question asked by Pope and Voges (1997) in their study assessing the free recall of spectators of a United Kingdom Rugby league, subjects were asked to list all the brand or company names they could remember having seen on the signs surrounding the field (football game) or court (basketball game).

Next, the survey evaluated spectators' brand name recognition of sponsors' perimeter signage (i.e., embedded sponsorship stimuli). Sandage (1983) suggested that recognition tests are used and recommended by Starch/INRA/Hooper, an industry leader in measuring advertising effectiveness. Respondents were asked to indicate, from a list of sponsors (including dummy or distractor brand names), whether or not they remembered viewing the company's name in a perimeter sign. Several studies (e.g., Harshaw & Turner, 1999; Shilbury & Berriman, 1996) that attempted to measure spectators' recognition of sponsors utilized a similar approach.
In order to limit the amount of respondent guessing in the recognition test (i.e., simply choosing a name without any knowledge of prior exposure), respondents were required to indicate on a scale from one (not very confident) to five (very confident) how confident they were that each brand name they had selected was actually on a sign that was present at the football or basketball game they had attended. However, the relationship between spectators' confidence levels and the recall and recognition of sponsor brand names will not be analyzed within the current study.

The third part of the survey determined how frequently spectators attended home games over the course of the University’s football or basketball season. Respondents were asked to provide the number of football or basketball home games, they had attended, in person, in the 2003 season. This study took place during the third home game of each of the teams’ season, therefore, respondents were asked to specify whether this was their first, second, or third home game of the season.

The fourth part of the survey assessed spectators’ level of involvement with football or basketball home games. McQuarrie and Munson’s (1987) Revised Personal Involvement Inventory (RPII) was used to determine involvement with these sporting events. Respondents were asked to complete a series of questions with respect to their level of involvement with the University’s football or basketball home games. To measure involvement with these sporting events, the RPII used 28 bi-polar adjectives (i.e., semantic differential). For example, respondents were asked questions such as whether or not the University’s football/basketball home games were important/unimportant, fun/not fun, and if they were uninterested/interested in them. The justification for the use of this scale will be discussed in the next section.
The fifth part of the survey measured spectators’ involvement with the sponsors’ advertisements (i.e., perimeter signage) at each of the sporting events. Zaichkowsky’s (1990) Personal Involvement Inventory for Advertising (PIIA) was used to determine involvement with perimeter signage. Respondents were asked to complete a series of questions with respect to their level of involvement with the sponsors’ perimeter signage. To measure involvement with these advertisements, the PIIA used 20 bi-polar adjectives (i.e., semantic differential). For example, respondents were asked questions such as whether or not the signage at the football and basketball home games was important/unimportant, relevant/irrelevant, and if they were appealing/unappealing. The justification for the use of this scale will be discussed in the next section.

3.2.1 Scale Choice Justification

There was more than one standardized scale to measure the two involvement components in the study's framework (i.e., involvement with the event and involvement with the sponsors’ advertisements). The following section provides justification for the choice of one scale over other options.

3.2.2 Involvement with the Event

McQuarrie and Munson’s (1986) RPII scale, which is based on the Personal Involvement Inventory (PII) developed by Zaichkowsky (1985) was used to measure spectators’ level of involvement with the University’s football and basketball home games. The scale has 14-items which were each be scored on a 5-point system and summed to form an overall RPII score (McQuarrie & Munson). The scale items can be scored separately in order to represent one or more of Laurent and Kapferer’s (1985) involvement dimensions (i.e., importance, pleasure, and risk). McQuarrie and Munson
reported that the reliability of the RPII had a coefficient alpha of 0.93. This scale has been widely used by researchers in order to determine involvement with a particular event or leisure activity (e.g., Havitz and Dimanche, 1997; Johnson Tew, 2000). Havitz and Dimanche reported that in the leisure literature, the RPII was used in 11 out of 42 studies and that the sub-scale alphas in these 11 studies ranged from 0.52 (Hammer, 1996) to 0.90 (Wiley, 1995) with most falling in the region 0.85.

The RPII appears to offer several practical advantages over the original PII scale created by Zaichkowsky (1985). For example, it is substantially shorter in length, 14 items compared to the 20 items in the original PII (McQuarrie & Munson, 1986). This shortened version of the PII was essential for this study given the need to keep the survey instruments relatively short in length in order to increase the response rate. Further, this version was more cost efficient due to reductions in questionnaire length and also limited respondent fatigue (McQuarrie & Munson).

3.2.3 Involvement with Sponsors’ Advertisements (i.e., Perimeter Signage)

Zaichkowsky’s (1990) PIIA scale, which is also based on Zaichkowsky’s (1985) PII was used to measure spectators’ involvement with the sponsors’ perimeter signage. This scale was selected in order to maintain consistency in question type (i.e., semantic differential). The PIIA has 10 items, as opposed to 20 in the original PII, and is specifically designed to measure involvement with advertisements. The scale captures both the personal rational relevance as well as personal emotional relevance of advertisements (Zaichkowsky, 1990). According to Zaichkowsky (1990), these elements are essential in developing a construct that measures involvement with advertisements (i.e., sponsor signage). Similar to the RPII, all items were scored on a 5-point system and
summed to form an overall measure of advertising involvement. Zaichkowsky (1990) stated that the PIIA has been checked for both content validity and construct validity. The author noted that a number of reliability and validity assessments were conducted on the PIIA, and that the coefficient alpha for the scale ranged from .91 to .96 (Zaichkowsky, 1990).

The PIIA is relatively short in length consisting of only 10 items. Although this scale is commonly used to measure involvement with a single advertisement, it was also applicable and was used in this study to measure involvement with advertisements in general (e.g., all sponsors’ perimeter signage present at an athletic event). It was felt that measuring involvement with every sponsor’s advertisement separately (i.e., having respondents fill out a separate PIIA for each company with a perimeter sign) would be impractical given the time constraints that surrounded the completion of the survey instruments (e.g., spectators in a hurry to leave the stadium or gym).

3.3 Pilot Study

Recognition testing requires subjects to correctly identify a company from a list of potential sponsors which include “dummy” brand names (Turco, 1996). Dummy brand names refer to companies that are present in the list but did not actually sponsor the event. However, Peltier and Schilbrowsky (1992) suggested there are different ways to administer a brand name recognition test when measuring advertising effectiveness. Although there are several ways to measure spectators’ recognition of sponsors of an athletic event, there is little consensus in the literature on which type of recognition test to use.
The purpose of the pilot study was to compare two different types of recognition tests to see which method revealed greater accuracy rates among viewers of an athletic event. The test that revealed the highest accuracy rates was used in the survey instruments for this study. The two different types of recognition tests that were compared in the pilot study were the Batch test and a two-item Forced-Choice test. This pilot research was conducted prior to collecting the data for this study to ensure that a potentially lower measure of recognition was not used in the actual study. Lower measures should not be used in sponsorship recognition testing because these results are often reported back to the sporting organization’s sponsors in hopes of securing essential revenues.

When a Batch Recognition test is used, subjects are presented with all of the original sponsors and all of the dummy sponsors at the same time and respondents are asked to choose those sponsors that they can remember having seen advertised at the athletic event (Peltier & Schilbrowsky, 1992). A Forced-Choice recognition test is one where subjects are asked to identify a previously seen sponsor from a list containing one or more dummy companies (Peltier & Schilbrowsky). This task is repeated once for every sponsor on the original list. Unlike batch testing, there is only one correct response per set (Peltier & Schilbrowsky). When one dummy sponsor name is used this is called a two-item test, when two dummy sponsor names are used it is a three-item test, and so on (Peltier & Schilbrowsky). Singh et al. (1988) suggested that Forced-Choice recognition tests are most appropriate in reducing response biases. For this pilot study, each test used the same dummy brand names in order to make a direct comparison between the two tests.
Participants for the pilot study consisted of 24 undergraduate students at the University of Waterloo. Subjects watched 15 minutes of an edited televised National Hockey League game (played on February 18, 2003). The video was edited so that only perimeter signage (i.e., advertisements on the boards and that surround the ice-surface) and on-ice sponsorship stimuli were visible to the respondents (e.g., the commercials were removed from the telecast). Immediately following the hockey game, participants completed one of two survey questionnaires. Each questionnaire consisted of one of the two recognition tests described earlier (i.e., the Forced-Choice or Batch Test). The actual sponsors in the list for each test included the company brand names from all the signage on the boards that surrounded the ice surface. At random, twelve participants received the Batch recognition test (refer to Appendix L for a copy of this measure that was used in the pilot study) and the other twelve participants received the two-item Forced-Choice recognition test (refer to Appendix M for a copy of this measure that was used in the pilot study).

Results from the paired-samples t-test revealed that students who completed the Forced-Choice recognition test had significantly higher recognition accuracy rates for sponsors of the event ($t = -2.54, p < .05$). On average, subjects who were given the Forced-Choice recognition test correctly identified 8.75 sponsor brand names (of a possible 20) from the signage surrounding the ice surface compared to an average of 4.33 (of a possible 20) sponsor brand names for the Batch recognition test. Therefore, the survey instruments that were used in this study included the Forced-Choice recognition test.
As recall tests do not differ in how they are presented (i.e., they simply ask respondents to name as many sponsors from the event as they can) and do not involve the use of external cues such as those used in aided recall where respondents are offered a brand category (e.g., name a soft drink company), it was felt that there was no need to include the recall measure that was used in this study in the pilot research.

3.4 Pre-test

The research assistants were asked to complete the survey instruments at the meetings that were held prior to the data collection dates. This pre-test determined the approximate length of time that it would take subjects to complete the survey (i.e., five to seven minutes). Further, the pre-test helped to ensure that the instructions on the questionnaire were easily understood and that the instrument was relatively easy to complete. Pre-testing the survey instruments allowed the research assistants to become familiar with the types of questions that were asked in questionnaire so that they could answer the questions or concerns of respondents.

3.5 Data Analysis Plan

Two separate Multivariate Analyses of Variance (MANOVAs) (i.e., one for each sporting event) and two independent-samples t-tests were utilized in order to analyze the relationships between the variables that are presented in the study framework (refer to Figure 1.4 in Chapter One). Further, two separate paired samples t-tests (i.e., one for each sporting event) were used to compare the differences between recall and recognition scores. Finally, two independent samples t-tests were used to determine whether or not there are differences between basketball and football spectators in the recall and
recognition of sponsorship stimuli. For this study, a probability level of \( p < .05 \) will be used to indicate statistical significance.

### 3.6 Research Questions and Hypotheses

The following section outlines the research questions that guided this study. Based on the research questions, a number of hypotheses were developed to test each research question. The hypotheses are presented in alternative format. Research questions are denoted by RQ and alternative hypotheses are denoted by Ha.

Section 1.7 in Chapter One provides reasoning for the nature and direction of the hypotheses connected with RQ1. Section 1.9 in Chapter One outlines the conceptual development of the framework that guided this study and presents evidence supporting the nature and direction of the hypotheses associated with RQ2. Section 1.10 in Chapter One outlines the theory behind the nature and direction for the hypotheses related to RQ3.

**RQ1:** How do recall and recognition measures differ as a means of measuring spectators’ awareness of sponsors?

**Ha1:** There will be a difference in spectators’ recall and recognition scores.

**Ha1a:** Spectators’ recognition scores will be significantly higher than recall scores.

**RQ2:** What are the factors that influence spectators’ recall and recognition of embedded sponsorship stimuli?

**Ha2:** There will be a difference in the recall and recognition of embedded sponsorship stimuli based on spectators’ involvement with the sporting events.
Ha2a: More involved spectators will have higher levels of recall of embedded sponsorship stimuli.

Ha2b: More involved spectators will have higher levels of recognition of embedded sponsorship stimuli.

Ha2c: More involved spectators will attend a greater number home games over the course of the season.

Ha3: There will be a difference in the recall and recognition of embedded sponsorship stimuli based on the number of games spectators attend over the course of the season.

Ha3a: Spectators who are exposed to embedded sponsorship stimuli more often (i.e., spectators who attend a greater number of home games) will have higher levels of recall of sponsoring companies’ brand names.

Ha3b: Spectators who are exposed to embedded sponsorship stimuli more often (i.e., spectators who attend a greater number of home games) will have higher levels of recognition of sponsoring companies’ brand names.

Ha4: There will be a difference in the recall and recognition of embedded sponsorship stimuli based on spectators’ involvement with the sponsors’ perimeter signage.

Ha4a: Spectators’ who are more involved with the sponsors’ perimeter signage will have higher levels of recall of sponsoring companies’ brand names.

Ha4b: Spectators’ who are more involved with the sponsors’ perimeter signage will have higher levels of recognition of sponsoring companies’ brand names.

RQ3: Are there sport differences in the recall and recognition of embedded sponsorship stimuli?
Ha5: There will be a difference in the recall and recognition of embedded sponsorship stimuli when comparing spectators of the two sporting events.

Ha5a: Spectators of the University’s football game will have significantly greater recall of sponsoring companies’ brand names compared to those spectators of the University’s basketball game.

Ha5b: Spectators of the University’s football game will have significantly greater recognition of sponsoring companies’ brand names compared to those spectators of the University’s basketball game.
CHAPTER FOUR: RESULTS

4.0 Outline

Chapter Four presents the results of the questionnaires that were distributed at the University's home football and basketball game. First, it outlines the process of data input and cleaning. Second, the general results are discussed including issues relating to the response rates and characteristics of the respondents (i.e., demographics). Third, the descriptive statistics for each question in the two survey instruments are outlined. Finally, the results of hypothesis testing are presented.

4.1 Data Input

Data from each questionnaire was entered by the researcher into SPSS over a period of three weeks following the football game and one week following the basketball game. Once all of the data had been entered, two steps were taken in order to ensure the data was "cleaned." First, each variable was checked to ensure that the values were within acceptable ranges. For example, respondents' brand name recall and recognition percentages were checked to ensure that they fell between zero and 100 and scores on the summated involvement scales (prior to recoding) were checked to ensure they were between one and five. Any other values were considered an error. No errors were uncovered in this step. Second, 14 questionnaires (5%) from the football game and four questionnaires (5%) from the basketball game were randomly drawn and each entry was checked for accuracy, no errors were found.

4.2 General Results

The following section outlines the general results for each sporting event examined within the study. Issues relating to response rates and the demographic
characteristics of respondents who attended each game are presented. Where applicable, the means and standard deviations of these characteristics are given.

4.2.1 Response Rate

No formal response rate was calculated due to the data collection procedures (refer to Chapter 3). Research assistants were unable to accurately keep track of how many spectators they approached versus how many actually completed the survey. However, the total number of spectators at each event was known (i.e., 2893 people attended the football game and 328 people attended the basketball game). Therefore, the percentage of spectators who completed the survey relative to the total size of the study’s population at each sporting event was calculated. At the football game, 294 spectators (10.16%) completed a survey before leaving the stadium. Data from 277 of these surveys was entered into SPSS for statistical analysis. The remaining 17 surveys were incomplete and could not be used for any further data analysis.

At the basketball game, 85 spectators (25.91%) completed a survey as they left the University’s gym. Data from 81 of these surveys was entered into SPSS for statistical analysis. The two remaining surveys were incomplete and could not be used for any data analysis. One of the surveys was eliminated from the sample because the respondent was in view of the signage when completing the survey and the second survey was not included because the respondent was an employee of the athletic department.

4.2.2 Characteristics of the Respondents

Respondents from each sporting event were asked to complete a series of demographic questions (e.g., gender, age, team/university supported, and association with the team/university). The following is a summary of the demographic information
collected from the football and basketball spectators. The majority of respondents at the football game were male (61.96%) as opposed to female (38.04%). Similarly, at the basketball game there were more male (51.85%) than female (48.15%) respondents.

The average age of respondents who completed the survey at the football game was 26.86 (SD = 13.46) and ranged from 18 to 87 with the majority of respondents being 18 (21.30%). In fact, most of the spectators who were surveyed at this event (n = 201, 72.83%) were between the ages of 18 to 24. The next largest age cohort was 43 to 51 (n = 26, 9.42%) followed by 51 and older (n = 21, 7.61%). The remaining age cohorts were represented by 5% or fewer of the football game’s respondents.

The average age of respondents who completed the survey at the basketball game was slightly older at 28.91 (SD = 15.94) and ranged from 18 to 68. The majority of basketball respondents were 19 (21.00%). Similar to what was observed in the football game’s respondents, the majority of spectators surveyed at the basketball game (n = 54, 66.66%) were between the ages of 18 to 24. The next largest age cohort at this event was 51 and older (n = 14, 17.28%) followed by respondents between the ages of 43 to 51 (n = 6, 7.41%).

The majority of spectators attending both of these events were between the ages of 18-24. This pattern was not unexpected given that most spectators surveyed at the football and basketball game were students of the participating Universities. The demographic information relating to the types of spectators (e.g., students, alumni, friends of participating players, relatives of participating players, team boosters, university employees, non-supporters, friends/relatives of alumni, friends/relatives of
students, community members) attending each sporting event will be discussed in more
detail in a later part of this section.

Almost an equal number of respondents surveyed at the football game were
supporters of the home Team/University ($n = 130, 47.10\%$) and the visiting
Team/University ($n = 129, 46.74\%$). This result was not surprising given that the
participating Universities share the use of the football stadium and their campuses are in
within walking distance from one another. Further, only a small number of spectators
surveyed at the football game supported neither of the participating University’s teams ($n$
$= 14, 5.07\%) or both of the participating University’s teams ($n = 3, 1.09\%)$.

In contrast, at the basketball game the majority of respondents were there to
support the home University’s team ($n = 67, 82.72\%$), as opposed to the visiting
University’s team ($n = 11, 13.58\%$). Similar to the football respondents, only a small
number of spectators surveyed at the basketball game supported neither of the
participating University’s teams ($n = 3, 3.70\%)$ while none of the respondents reported
supporting both of the participating University’s teams.

Over half of the respondents surveyed at the football game were students ($n =$
$141, 51.09\%)$. The next largest category of spectators were friends of participating
players ($n = 43, 15.58\%$) followed by alumni ($n = 28, 10.14\%$). The remaining categories
of spectators (i.e., relatives of participating players, team boosters, former team
participants, university employees, non-supporters, friends/relatives of alumni,
friends/relatives of students, members of the surrounding community) were represented
by fewer than eight percent of respondents (7.61\% to 0.72\%).
A similar pattern of association with the participating Teams/Universities was observed in basketball respondents. For example, the majority of spectators surveyed at the basketball game \((n = 24, 29.63\%)\) were students followed by friends of participating players \((n = 22, 27.16\%)\) and relatives of participating players \((n = 8, 9.88\%)\). The remaining categories of spectators (i.e., alumni, team boosters, former team participants, university employees, non-supporters, friends/relatives of alumni, friends/relatives of students, members of the surrounding community) were represented by fewer than 10% of respondents \((8.64\% \text{ to } 0.00\%)\). It is not surprising that there were more alumni respondents at the football game than the basketball game because the football game was promoted as an alumni event for the home Team/University. Please refer to Table 4.1 for a summary of the demographic characteristics of the football and basketball respondents.
Table 4.1 Demographic Characteristics of Football and Basketball Respondents

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Football Spectators ($N = 276$)</th>
<th>Basketball Spectators ($N = 81$)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$n$</td>
<td>%</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>171</td>
<td>61.96</td>
</tr>
<tr>
<td>Female</td>
<td>105</td>
<td>38.04</td>
</tr>
<tr>
<td>Age Cohort</td>
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<td></td>
</tr>
<tr>
<td>18 – 24</td>
<td>201</td>
<td>72.83</td>
</tr>
<tr>
<td>25 – 33</td>
<td>14</td>
<td>5.07</td>
</tr>
<tr>
<td>34 – 42</td>
<td>14</td>
<td>5.07</td>
</tr>
<tr>
<td>43 – 51</td>
<td>26</td>
<td>9.42</td>
</tr>
<tr>
<td>51 +</td>
<td>21</td>
<td>7.61</td>
</tr>
<tr>
<td>Team Supported</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Home Team/University</td>
<td>130</td>
<td>47.10</td>
</tr>
<tr>
<td>Visiting Team/University</td>
<td>129</td>
<td>46.74</td>
</tr>
<tr>
<td>Neither Team/University</td>
<td>14</td>
<td>5.07</td>
</tr>
<tr>
<td>Both Teams/Universities</td>
<td>3</td>
<td>1.09</td>
</tr>
</tbody>
</table>

(Table 4.1 continues)
(Table 4.1 continued)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Football Spectators ($N = 276$)</th>
<th>Basketball Spectators ($N = 81$)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$n$</td>
<td>%</td>
</tr>
<tr>
<td>Type of Spectator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student</td>
<td>141</td>
<td>51.09</td>
</tr>
<tr>
<td>Alumni</td>
<td>28</td>
<td>10.14</td>
</tr>
<tr>
<td>Friend of a Participating Player</td>
<td>43</td>
<td>15.58</td>
</tr>
<tr>
<td>Relative of a Participating Player</td>
<td>12</td>
<td>4.35</td>
</tr>
<tr>
<td>Team Booster</td>
<td>2</td>
<td>0.72</td>
</tr>
<tr>
<td>Former Team Participant</td>
<td>3</td>
<td>1.09</td>
</tr>
<tr>
<td>University Employee</td>
<td>5</td>
<td>1.81</td>
</tr>
<tr>
<td>Non-supporters*</td>
<td>14</td>
<td>5.07</td>
</tr>
<tr>
<td>Friends/Relatives of Alumni</td>
<td>3</td>
<td>1.09</td>
</tr>
<tr>
<td>Friends/Relatives of Students</td>
<td>4</td>
<td>1.45</td>
</tr>
<tr>
<td>Community Members**</td>
<td>21</td>
<td>7.61</td>
</tr>
</tbody>
</table>

*Non-supporters represented respondents that answered “neither” to Team/University supported. Therefore, they were not required to specify their association.

**Community Members represented respondents who were fans from the local community.
4.3 Descriptive Statistics

The following section presents the descriptive statistics for each question and scale from the surveys that were distributed at the football and basketball game. The response rates for each question and scale are reported. In addition, the process for recoding the involvement scales into high and low categories is discussed. Where appropriate, the variables’ means, standard deviations, skewness, and kurtosis are presented.

4.3.1 Recall

To measure recall of sponsors, respondents were asked to list all of the sponsors’ brand names they could remember having seen advertised on the signs surrounding the football field and basketball court. For each sporting event, a response rate of 100% was achieved for this question. On average, respondents who attended the football game were able to recall 11.47% (1.61 of 14) of the sponsors’ brand names advertised on perimeter signage. Football respondents’ recall scores ranged from zero to 57% (8 of 14) of the sponsors.

In contrast, the respondents surveyed at the basketball game were able to recall an average of 7.60% (1.44 of 18) of the sponsors’ brand names advertised on perimeter signage. Basketball respondents’ recall scores ranged from 0% to 33% (6 of 18) of the sponsors. The data suggests that football respondents, on average, recalled a greater percentage of sponsors than basketball respondents. The descriptive statistics for respondents’ recall of football and basketball sponsors (i.e., means, standard deviations, skewness and kurtosis) are presented in Table 4.2 and Table 4.3 respectively.
4.3.2 Recognition

To measure recognition of sponsors, a two-item Forced-Choice recognition test adapted from Peltier and Schilbrowsky (1992) was used. This test required respondents to identify a previously seen sponsor from a list containing dummy companies (i.e., companies that were present in the list but that were not actual sponsors). Respondents had to select, from a set of two brand names (i.e., a sponsor and a dummy company), which company/campus organization was the actual sponsor that advertised on perimeter signage. This task was repeated once for every sponsor on the original list. One actual sponsor was not included in the recognition test that was completed by football respondents. Therefore, respondents’ recognition percentage at the football game was calculated using a total of 13 sponsors’ brand names unlike the 14 used to calculate recall percentage. The response rate for this question was 98.19% for the football game and 100% for the basketball game.

On average, football respondents were able to correctly recognize 51.92% (6.75 of 13) of the sponsors’ brand names advertised on perimeter signage. Football respondents’ recognition scores ranged from zero to 100% of the sponsors. In contrast, the respondents surveyed at the basketball game were able to recognize an average of 60.72% (10.93 of 18) of the sponsors’ brand names advertised on perimeter signage. Basketball respondents’ recognition scores ranged from six percent (1 of 18) to 94% (17 of 18) of the sponsors. The data suggests that basketball respondents, on average, recognized a greater percentage of sponsors than football respondents. As was expected, these results also indicate that respondents from both sporting events, on average, recognized more brand names than they were able to recall. The descriptive statistics for
respondents' recognition of football and basketball sponsors (i.e., means, standard deviations, skewness and kurtosis) are presented in Table 4.2 and Table 4.3 respectively.

Table 4.2 Recall and Recognition of Football Sponsors

<table>
<thead>
<tr>
<th>Measure</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Sponsors Recalled</td>
<td>1.61</td>
<td>1.50</td>
<td>1.11</td>
<td>1.46</td>
</tr>
<tr>
<td>Percentage of Sponsors Recalled</td>
<td>11.47</td>
<td>11.00</td>
<td>1.11</td>
<td>1.46</td>
</tr>
<tr>
<td>Number of Sponsors Recognized</td>
<td>6.75</td>
<td>3.60</td>
<td>-.38</td>
<td>-.91</td>
</tr>
<tr>
<td>Percentage of Sponsors Recognized</td>
<td>51.92</td>
<td>28.00</td>
<td>-.38</td>
<td>-.91</td>
</tr>
</tbody>
</table>

In order to limit respondent guessing in the recognition tests (i.e., simply choosing a name without any knowledge of prior exposure), respondents were required to indicate on a scale from one (not very confident) to five (very confident) how confident they were that each brand name they had selected was actually on a sign that was present at the football or basketball game they had attended. For this scale, a response rate of 85.56% and 90.12% was achieved from football and basketball respondents respectively. Overall, football respondents were somewhat confident that the brand names they had selected were actually sponsors that advertised on perimeter signage ($M = 3.43$, $SD = 1.02$). Likewise, basketball respondents also appeared to be somewhat confident in the companies they had selected for the recognition test ($M = 3.18$, $SD = 1.08$). This scale
was only included in the survey in order to deter respondent guessing in the recognition test. Therefore, it will not be addressed in any subsequent statistical analysis.

Table 4.3 Recall and Recognition of Basketball Sponsors

<table>
<thead>
<tr>
<th>Measure</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Sponsors Recalled</td>
<td>1.44</td>
<td>1.60</td>
<td>1.05</td>
<td>.23</td>
</tr>
<tr>
<td>Percentage of Sponsors Recalled</td>
<td>7.60</td>
<td>8.41</td>
<td>1.05</td>
<td>.23</td>
</tr>
<tr>
<td>Number of Sponsors Recognized</td>
<td>10.93</td>
<td>4.51</td>
<td>-.68</td>
<td>-.31</td>
</tr>
<tr>
<td>Percentage of Sponsors Recognized</td>
<td>60.72</td>
<td>25.03</td>
<td>-.68</td>
<td>-.31</td>
</tr>
</tbody>
</table>

4.3.3 Repeated Exposure (i.e., Number of Games Attended)

Respondents were asked to indicate whether this was the first, second, or third home game that they had attended over the course of the football or basketball season. The response rate for this question was 98.19% and 98.77% for football and basketball respondents respectively. The majority of respondents at the football game \((n = 174, 63.97\%)\) indicated that it was their first home game, followed by respondents who reported it being their second \((n = 81, 29.78\%)\) and third \((n = 17, 6.25\%)\) home game. Similarly, the majority of respondents at the basketball game \((n = 43, 53.75\%)\), indicated that it was their first home game, followed by respondents who reported it being their third \((n = 26, 32.09\%)\) and second \((n = 11, 32.75\%)\) home game.
Repeated exposure (i.e., whether spectators attended one, two, or three home games) to perimeter signage did not have a meaningful influence on football and basketball respondents' brand name recall or recognition when included in the MANOVA analyses. Therefore, the hypotheses relating to the difference in the recall and recognition of sponsors based on the number of games spectators attend over the course of the season (refer to Chapter Three) will not be addressed within the subsequent MANOVA analyses (refer to section 4.4.3).

The hypothesis that more involved spectators will attend a greater number of home games over the course of the season will be addressed within this study (refer to Chapter Three). However, in order to test this hypothesis using equal groups (i.e., the majority of football and basketball respondents reported that it was their first home game of the season), responses indicating how many home games football and basketball respondents' attended were condensed into two categories (i.e., those who attended one home game and those who attended more than one home game). The results from this test will be discussed in greater detail in a later section.

4.3.4 Involvement with the Event

McQuarrie and Munson's (1987) Revised Personal Involvement Inventory (RPII) was used to measure respondents' involvement with the University's football and basketball home games. The RPII is a 14-item, five-point semantic differential scale which contains 28 bi-polar adjectives. For example, respondents were asked to indicate whether or not the University's football/basketball home games were important/unimportant, fun/not fun, and if they were uninterested/interested by them. Scores for each item of the RPII scale were coded to range from one (i.e., responses that
reflected low involvement adjectives such as unimportant, not fun, and uninteresting) to five (i.e., responses that reflected high involvement adjectives such as important, fun, and interesting). The scores for each item were then summed to form an average RPII score. Therefore, respondents’ scores on the RPII scale ranged from one (low involvement) with the University’s football/basketball home games to five (high involvement) with the University’s football/basketball home games. The RPII scale achieved a response rate of 81.85% and 82.72% among football and basketball respondents respectively. The mean RPII score for football respondents was 3.13 (SD = .736) and was much higher for basketball respondents at 3.81 (SD = .672).

In order to address the hypotheses relating to involvement with an event’s influence on spectators’ recall and recognition (refer to Chapter Three), respondents’ RPII scores were re-coded in order to create the two involvement categories (i.e., high and low involvement with football and basketball home games) required to satisfy the conditions of a MANOVA design (i.e., the use of nominal or ordinal independent variables). Football respondents who had average RPII scores greater than or equal to 3.50 were considered to have high involvement with the sporting event (n = 71, 49.0%). In contrast, respondents with scores on the RPII less than or equal to 2.79 were considered to have low involvement with the sporting event (n = 74, 51.0%). At the basketball game, respondents with RPII scores greater than or equal to 4.07 were categorized as having high involvement with the sporting event (n = 27, 55.1%). Conversely, respondents who had scores less than or equal to 3.43 were categorized as having low involvement with the sporting event (n = 22, 44.9%).
The RPII scores that separated respondents into either the high or low involvement with the event categories were calculated by dividing each scale's distribution into three relatively equal groups. For instance, football and basketball respondents that fell into the high involvement category were those with RPII scores in the upper third of each scale's distribution. In contrast, football and basketball respondents in the low involvement category were those with RPII scores in the lower third of each scale's distribution. The sample sizes from the football and basketball game were large enough to eliminate the middle third of respondents' RPII scores, allowing for the creation of two very distinct involvement groups on which to compare respondents' recall and recognition of sponsors. The results of the MANOVA relating to involvement with an event's influence on respondents' recall and recognition of sponsors will be discussed in greater detail in a later section.

4.3.5 Involvement with the Advertisements

Zaichkowsky's (1990) Personal Involvement Inventory for Advertising (PIIA) was used to measure respondents' involvement with the perimeter signage displayed at each athletic event. The PIIA is a 10-item, five-point semantic differential scale which contains 20 bi-polar adjectives. For example, respondents were asked to indicate whether or not the perimeter signage displayed at the football/basketball game was important/unimportant, relevant/irrelevant, and if the signage was appealing/unappealing. Scores for each item of the PIIA scale were coded to range from one (i.e., responses that reflected low involvement adjectives such as unimportant, irrelevant, and unappealing) to five (i.e., responses that reflected high involvement adjectives such as important, relevant, and appealing). The scores for each item were then summed to form an average
PIIA score. The PIIA scale achieved very similar response rates among both football (93.86) and basketball respondents (93.83). The mean PIIA score for football respondents was 2.77 (SD = .923) and was slightly lower for basketball respondents at 2.75 (SD = .960).

In order to address the hypotheses relating to involvement with the advertisements’ influence on spectators’ recall and recognition (refer to Chapter Three), respondents’ PIIA scores were re-coded in order to create the two involvement categories (i.e., high and low involvement with the advertisements) required to satisfy the conditions of a MANOVA design (i.e., the use of nominal or ordinal independent variables). Football respondents who had average PIIA scores greater than or equal to 3.10 were considered to have high involvement with the perimeter signage displayed at the football game (n = 105, 54.1%). In contrast, respondents with scores on the PIIA less than or equal to 2.40 were considered to have low involvement with the perimeter signage displayed at the event (n = 89, 45.9%). At the basketball game, spectators with PIIA scores greater than or equal to 3.00 were categorized as having high involvement with the perimeter signage displayed at the event (n = 31, 52.5%). Conversely, respondents who had scores less than or equal to 2.40 were categorized as having low involvement with the perimeter signage displayed at the event (n = 28, 47.5%).

The PIIA scores that separated respondents into either the high or low involvement with the advertisements categories were calculated by dividing each scale’s distribution into three relatively equal groups. For instance, football and basketball respondents that fell into the high involvement category were those with PIIA scores in the upper third of each scale’s distribution. In contrast, football and basketball
respondents in the low involvement category were those with PIIA scores in the lower third of each scale’s distribution. The sample sizes from the football and basketball game were large enough to eliminate the middle third of respondents’ PIIA scores, allowing for the creation of two very distinct involvement groups with which to compare respondents’ recall and recognition of sponsors. The results of the MANOVA relating to involvement with the advertisements’ influence on respondents’ recall and recognition of sponsors will be discussed in greater detail in a later section.

4.4 Hypothesis Testing

The hypotheses outlined in Chapter Three were tested and the results of these tests are presented in the following section. This section is comprised of five parts. Hypotheses related to the differences between recall and recognition scores for each sporting event are presented. Following this, hypotheses for each linkage (excluding repeated exposure) in the “Framework for Understanding the Factors that Influence Spectators’ Recall and Recognition of Embedded Sponsorship Stimuli” (refer to Figure 1.4) are presented for each sporting event. These linkages include involvement with an event and attendance at games, involvement with an event and recall, involvement with an event and recognition, involvement with the advertisements and recall, and involvement with the advertisements and recognition. Finally, hypotheses related to sport differences in the recall and recognition of sponsors are presented.

4.4.1 Recall and Recognition Scores

Two paired samples t-tests (i.e., one for each sporting event) were conducted in order to evaluate the hypothesis that respondents would be able to recognize more sponsors that advertised on perimeter signage than they would be able to recall. This test
was significant for football respondents \( (t = -26.119, df = 271, p < .001) \) and supported the hypothesis. On average, football respondents recognized a greater percentage of brand names \( (M = 51.92, SD = 28.00) \) than they were able to recall \( (M = 11.47, SD = 11.00) \). Similarly, this test was significant for basketball respondents \( (t = -21.343, df = 80, p < .001) \) and supported the hypothesis. On average, basketball respondents recognized a greater percentage of brand names \( (M = 60.72, SD = 25.03) \) than they were able to recall \( (M = 7.60, SD = 8.41) \).

4.4.2 Involvement with the Event and Attendance At Games

Two independent-samples t-tests (i.e., one for each sporting event) were conducted to evaluate the hypothesis that more involved spectators would attend a greater number of home games over the course of the season. The test was significant for football respondents \( (t = -3.850, df = 222, p < .001) \) and supported the hypothesis. On average, football respondents who attended more than one home game \( (n = 92, 41.07\%) \) were more involved with the event \( (M = 3.35, SD = .70) \) than the respondents \( (n = 132, 58.93\%) \) who indicated that it was the first home game they had attended over the course of the season \( (M = 2.98, SD = .73) \). Similarly, this test was significant for basketball respondents \( (t = -5.063, df = 65, p < .001) \) and supported the hypothesis. On average, basketball respondents who attended more than one home game \( (n = 30, 44.78\%) \) were more involved with the event \( (M = 4.20, SD = .53) \) than the respondents \( (n = 37, 55.22\%) \) who indicated that it was the first home game they had attended over the course of the season \( (M = 3.49, SD = .60) \).
4.4.3 MANOVA

Two separate MANOVA analyses (i.e., one for each sporting event) were conducted in order to determine the effect of involvement with an event and involvement with the advertisements on respondents' recall and recognition of sponsors. The assumptions governing multivariate statistical analyses (i.e., univariate and multivariate normality, missing data) were upheld for each analysis. In addition, although recall and recognition scores (i.e., the dependent variables) were significantly correlated in both the football \( (r = .388, p < .001) \) and basketball \( (r = .465, p < .001) \) data, there was no multicollinearity between recall and recognition as they were not extremely correlated \( (i.e., r > .8) \).

The data used for each analysis upheld the assumptions of a MANOVA design. Box's tests for equality of covariance matrices were equal across both designs. Also, Levene's test of equality of error variances showed that the residual values of the dependent variables were equal across the independent variables \( (i.e., \text{involvement with the event and involvement with the advertisements}) \) for each analysis. Table 4.4 presents a summary of the multivariate and univariate analysis of variance for recall and recognition.
Table 4.4 Multivariate and Univariate Analyses of Variance for Recall and Recognition

<table>
<thead>
<tr>
<th>Source</th>
<th>Multivariate</th>
<th>Univariate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>df</td>
<td>$F^a$</td>
</tr>
<tr>
<td>Football Data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Involvement (Event)</td>
<td>2</td>
<td>4.62*</td>
</tr>
<tr>
<td>Involvement (Ads)</td>
<td>2</td>
<td>3.84*</td>
</tr>
<tr>
<td>Event X Ads</td>
<td>2</td>
<td>2.64</td>
</tr>
<tr>
<td>Basketball Data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Involvement (Event)</td>
<td>2</td>
<td>.92</td>
</tr>
<tr>
<td>Involvement (Ads)</td>
<td>2</td>
<td>.98</td>
</tr>
<tr>
<td>Event X Ads</td>
<td>2</td>
<td>.23</td>
</tr>
</tbody>
</table>

Note. Multivariate $F$ ratios were generated from Wilks’ Lambda statistic.

$^a$Multivariate $df = 2, 97$ for the football data and $df = 2, 33$ for the basketball data.

$^b$Univariate $df = 1, 98$ for the football data and $df = 1, 34$ for the basketball data.

*p < .05. **p < .01

4.4.3.1 Involvement with the Event and Recall/Recognition

The MANOVA analysis conducted on the football data revealed that involvement with the event had a significant main effect on recall and recognition with a Wilks’ lambda of .916 [$F (2, 97) = 4.46, p = .014, \eta^2 = .084$]. However, involvement with the
event did not have a significant main effect on recall and recognition from the MANOVA analysis conducted on the basketball data.

There was no significant univariate effect for involvement with the event on football respondents’ recall of sponsors. Therefore, the hypotheses that more involved spectators would have higher levels of recall was not supported in either sporting event. However, there was a significant univariate effect for involvement with the event on football respondents’ recognition of sponsors ($F = 9.02, p = .003$). With respect to effect size, involvement with the event accounted for 8.4% of the variation in respondents’ recognition scores for this event ($\eta^2 = .084$). On average, respondents who had high involvement with the event recognized a significantly greater percentage of sponsors that advertised on perimeter signage than those spectators who had low involvement with the event. More specifically, respondents who had high involvement with the University’s home football games were able to identify, on average, approximately 15% more sponsors than those who had low involvement with the University’s home football games. Therefore, the hypothesis that more involved spectators would have higher levels of recognition was supported among football respondents. Table 4.4 presents the mean recall and recognition percentages for respondents who had high and low involvement with each sporting event.
Table 4.5 Mean Recall and Recognition Percentages for High and Low Involvement with the Events

<table>
<thead>
<tr>
<th>Level of Involvement with the Event</th>
<th>Football Respondents</th>
<th>Basketball Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Recall</td>
<td>Recognition</td>
</tr>
<tr>
<td></td>
<td>Mean Percent</td>
<td>Mean Percent</td>
</tr>
<tr>
<td>Low</td>
<td>11.3</td>
<td>51.6</td>
</tr>
<tr>
<td>High</td>
<td>13.4</td>
<td>66.4</td>
</tr>
</tbody>
</table>

4.4.3.2 Involvement with the Advertisements and Recall/Recognition

The MANOVA analysis conducted on the football data revealed that involvement with the advertisements (i.e., perimeter signage) had a significant main effect on recall and recognition with a Wilks’ lambda of .927 \([F (2, 97) = 3.84, p = .025, \eta^2 = .073]\). However, involvement with the advertisements did not have a significant main effect on recall and recognition from the MANOVA analysis conducted on the basketball data.

There was a significant univariate effect for involvement with the advertisements on football respondents’ recall of sponsors \((F = 7.59, p = .007)\). With respect to effect size, involvement with the advertisements accounted for 7.2\% of the variation in respondents’ recall scores for this event \(\eta^2 = .072\). On average, respondents who had high involvement with the perimeter signage present at the football game recalled a
significantly greater percentage of sponsors’ brand names than respondents who had low involvement with the perimeter signage. More specifically, respondents who had high involvement with the advertisements were able to recall approximately 6% more sponsors than respondents who had low involvement with the advertisements. Therefore, the hypothesis that spectators who are more involved with the sponsors’ perimeter signage would have higher levels of recall was supported among football respondents.

There was no significant univariate effect for involvement with the advertisements on football respondents’ recognition of sponsors. Therefore, the hypothesis that spectators who are more involved with the sponsors’ perimeter signage would have higher levels of recognition was not supported in either sporting event. Table 4.6 presents the mean recall and recognition percentages for respondents who had high and low involvement with the advertisements displayed at each sporting event.
Table 4.6 Mean Recall and Recognition Percentages for High and Low Involvement with the Advertisements (i.e., perimeter signage)

<table>
<thead>
<tr>
<th>Level of Involvement with the Advertisements</th>
<th>Football Respondents</th>
<th>Basketball Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Recall</td>
<td>Recognition</td>
</tr>
<tr>
<td></td>
<td>Mean Percent</td>
<td>Mean Percent</td>
</tr>
<tr>
<td>Low</td>
<td>9.3</td>
<td>55.9</td>
</tr>
<tr>
<td>High</td>
<td>15.4</td>
<td>62.1</td>
</tr>
</tbody>
</table>

4.4.4 Sport Differences in Recall

An independent samples t-test was conducted to evaluate the hypothesis that spectators of the University’s football game would have greater recall of sponsors compared to those spectators of the University’s basketball game. This test was significant ($t = 3.000$, $df = 365$, $p = .003$) and supported the hypothesis. On average, football respondents were able to recall a greater percentage of sponsors that advertised on perimeter signage ($M = 11.47$, $SD = 11.00$) than were basketball respondents ($M = 7.60$, $SD = 8.41$).

4.4.5 Sport Differences in Recognition

An independent samples t-test was conducted to evaluate the hypothesis that spectators of the University’s football game would have greater recognition of sponsors
compared to those spectators of the University's basketball game. Although the test was significant \( t = -2.558, df = 351, p = .011 \), it did not support the hypothesis. On average, basketball respondents were able to recognize a greater percentage of sponsors that advertised on perimeter signage \( (M = 60.72, SD = 25.03) \) than were football respondents \( (M = 51.92, SD = 28.00) \).
CHAPTER FIVE: DISCUSSION

5.1 Introduction

The purpose of this study was to examine the factors that influence spectators’ recall and recognition of embedded sponsorship stimuli (i.e., company brand names on perimeter signage surrounding the play area) at a Canadian University’s men’s basketball game and football game. The factors included in this study were the number of games spectators attended over the course of the season (i.e., repeated exposure to sponsorship stimuli), spectators’ level of involvement with the event, and spectators’ level of involvement with the advertisements (i.e., perimeter signage). This study also examined the differences between recall and recognition as a means of measuring spectators’ awareness of sponsors, and attempted to determine if there are sport differences in spectators’ recall and recognition of perimeter signage.

Overall, the “Framework for Understanding the Factors that Influence Spectators’ Recall and Recognition of Embedded Sponsorship Stimuli,” as was presented in Chapter One, did not hold together as expected. Three of the seven research hypotheses associated with the study’s framework outlined in Chapter Three were supported. The hypothesis related to the differences between recall and recognition as a means of measuring spectators’ awareness of sponsors was supported and one of the two hypotheses associated with determining if there are sport differences in spectators’ recall and recognition of perimeter signage was supported.

5.2 Summary and Discussion

The results of hypothesis testing are discussed in the following section. This section is organized so that it follows the same order as the research questions presented
in Chapter Three. This section includes a modified conceptual framework based on the results of hypotheses testing. Implications for sport and recreation marketers will be presented and discussed in a later section, as will the limitations of the study and recommendations for future research.

5.2.1 Research Question One: What is the Difference Between Recall and Recognition as a Means of Measuring Spectators’ Awareness of Sponsors?

It was expected that spectators’ recognition scores would be higher than recall their scores. Indeed, there is much support for this notion in the advertising literature. Several researchers (e.g., Du Plessis, 1994; Krugman, 1977; Shilbury & Berriman, 1996; Singh et al., 1988) have argued that recall tests are more difficult than tests of recognition because the ad stimulus (e.g., sponsors’ brand names) is not present in recall tests, and thus, result in lower memory scores. Recall tests require respondents to retrieve a brand name from memory without any help, therefore, Du Plessis argued that visual unmasked recognition will always be higher than recall. Indeed, Aaker (1991) argued that unaided brand recall represents a higher level of consumer brand awareness than aided brand recognition.

In the case of research question one, the hypothesis that football and basketball respondents’ recognition scores would be higher than recall scores was supported. As was expected, respondents recognized, on average, more brand names from perimeter signs than they recalled. This finding suggests that recognition tests may be better suited to measure awareness of sponsors that advertise on perimeter signage than recall. Kahneman (1973) stated that the decision to employ recall or recognition tests is a function of how much attention is paid to the advertisement (i.e., signage). This
contention is consistent with Krugman (1986) who suggested that, "the advertising reported in recall tests is for the most part only advertising which elicits fairly close attention, whereas the advertising reported in recognition tests includes that too and also advertisements which elicit minimal attention" (p. 86).

It can be speculated that the majority of respondents' attention was focused on the action taking place on the football field or basketball court. Although researchers (e.g., Celsi & Olson, 1988; Mitchell, 1980; Pham, 1992) have suggested that spectators notice perimeter signage when watching an athletic event because the ads are embedded within the play area, one could argue that, in general, minimal attention is specifically directed at processing of perimeter signage present at each sporting event. The fact that recognition tests are more effective at measuring individuals' ability to remember advertisements that demand minimal attention (Krugman, 1986), may explain why football and basketball respondents were able to recognize more sponsors' brand names from perimeter signage than they were able to recall.

5.2.2 Research Question Two: What are the Factors that Influence Spectators' Recall and Recognition of Embedded Sponsorship Stimuli?

In the original framework, three factors were expected to have a positive influence on spectators' recall and recognition of embedded sponsorship stimuli: involvement with the event (i.e., the University's football or basketball home games), involvement with the advertisements (i.e., perimeter signage), and the number of games spectators attended over the course of the season (i.e., repeated exposure to perimeter signage). As well, the framework suggested that spectators who were more involved with the event would attend a greater number of home games over the course of the season.
There is much support in the advertising and sponsorship literature for including these variables when examining the factors that influence spectators’ recall and recognition of embedded sponsorship stimuli.

5.2.2.1 Involvement with the Event

Celsi and Olson (1988) defined involvement with the event as the sporting event’s perceived personal relevance to an individual. Researchers examining involvement with the event’s impact on the recall and/or recognition of sponsorship stimuli have, for the most part, argued that more involved spectators will have higher levels of recall and/or recognition (e.g., Cornwell et al., 2000; Lardinoit & Debraix, 2001; Slattery & Pitts, 2002). More specifically, researchers have suggested that a positive relationship should exist between a spectator’s level of involvement with the event and their ability to recall and/or recognize sponsors’ brand names from perimeter signage (Cornwell et al., 2000; Lardinoit & Debraix, 2001; Slattery & Pitts, 2002).

Football respondents who had high involvement with the event (i.e., those individuals who viewed attending the University’s home football games as fun, interesting, and exciting) had significantly higher brand name recognition of sponsors that advertised on perimeter signage than those individuals with low involvement with the event. In fact, involvement with the event accounted for 8.4% of the variation in football respondents’ recognition scores ($\eta^2 = .084$). This finding is consistent with past research which has suggested that a spectator’s level of involvement with an athletic event can influence the amount of attention that is directed at advertisements (Celsi & Olson, 1988; Mitchell, 1980; Pham, 1992). Pham stated that, “at low levels of involvement, little attention capacity (effort) will be allocated to the event as a whole.
Because they are inlaid in the event, sponsorship stimuli should also receive little attention. As involvement increases more overall attention is devoted to the event and also, as a result of their embeddedness, to the sponsorship stimuli” (p. 86).

In the current study, football respondents who had high involvement with the sporting event may have paid more attention to perimeter signage than individuals who had low involvement with the event, thereby resulting in higher recognition of sponsors. Although the attention of football respondents, who had high involvement with the event, may have been focused on the action taking place on the field, these individuals still processed the information contained within the ad stimuli (e.g., a sponsor’s brand name) albeit at a subconscious or peripheral level (Janiszewski, 1990). Therefore, peripheral processing may have had an impact on respondents’ memory retrieval when they were prompted to recall (i.e., when recognizing) the names of event sponsors.

The positive relationship that exists between involvement with the event and football respondents’ recognition of sponsors is also consistent with previous research which has suggested that individuals are more receptive to advertising when the medium (i.e., the sporting event) is perceived by the audience to be enjoyable, exciting, entertaining, and fun (Bennett, 1999; Nebenzahl & Hornik, 1985; Nicholls et al., 1999). Indeed, Nicholls et al. argued that spectators of an athletic event are often exposed to promotional messages under favourable conditions where there is enthusiasm, excitement, and enjoyment. Thus, the University’s home football games may have been a more favourable environment in which to be exposed to, and recognize sponsors from, perimeter signage for respondents who had high involvement with the event compared to those who had low involvement with the event.
On average, football respondents who had high involvement with the University’s home football games recalled a higher percentage of sponsors’ brand names from perimeter signage than those with low involvement with the event. However, involvement with the event did not have a statistically significant influence on football respondents’ recall of sponsors. Perhaps this finding can be explained by revisiting the differences between recall and recognition measures discussed in research question one. Some researchers (e.g., Krugman, 1986) have argued that recognition tests are better suited for measuring the effectiveness of advertisements that elicit limited attention. It can be argued that the majority of highly involved respondents’ attention was directed at the action taking place on the football field. Therefore, respondents who had high involvement with the event may have indirectly paid more attention to embedded perimeter signage than those who had low involvement with the event, resulting in heightened recognition. However, perhaps not enough of highly involved respondents’ attention was focused directly on processing the advertisements (i.e., perimeter signage) in order to have a significant influence on recall (i.e., their ability to remember sponsors’ brand names without any help or external cue).

Indeed, Lardinoit and Debraix (2001) supported this notion when they explained the low impact of sponsorship stimuli (e.g., perimeter signage) on soccer viewers’ unaided recall. The authors argued that, “it is low motivation to process information rather than the absence of ability to process that is responsible for this low impact [on recall]. It can be argued that if attention is drawn and curiosity is raised, motivation to process [sponsorship stimuli] is likely to increase” (p. 185). With respect to the amount of attention that highly involved spectators direct at perimeter signage, Slattery and Pitts
(2002) stated that, "after watching a game, it is rare to hear involved spectators comment on the sponsor signage at the arena instead of the play of the game. It is much more likely that nearly play-by-play reminiscences about many of the pays made during the sports event will be heard instead" (p. 167).

Within the current study, the fact the involvement with the event only had a significant influence on football respondents' recognition of sponsors and not recall seems to be in agreement with the earlier research examining this relationship (e.g., Cornwell, Maignan, & Irwin, 1997; Cornwell et al., 2000; Lardinoit & Debraix, 2001). For example, Lardinoit and Debraix found a significant positive relationship between involvement with a sport (i.e., soccer) and television viewers' ability to recognize sponsorship stimuli. However, while the authors did find a slightly positive relationship between involvement with soccer and the recall of television and field sponsorship stimuli, they stressed that, "this effect is marginal" (p. 187). Similarly, Cornwell et al. found no relationship between respondents' involvement with the sport of basketball and recall.

On average, basketball respondents who had high involvement with the University's home basketball games recalled and recognized more sponsors' brand names from perimeter signage than those who had low involvement with the event. However, involvement with the event did not have a statistically significant influence on basketball respondents' recall or recognition of sponsors. Perhaps involvement with the event was not significantly related to basketball respondents' recognition because of the fact that 82.72% of respondents at the basketball game were supporters of the home team compared to only 47% at the football game. Based on this information, it was not
surprising to find that basketball respondents, on average, were more involved with the event compared to football respondents. This finding makes intuitive sense and suggests that the heightened levels of involvement among basketball respondents created a less meaningful distinction between those who had high versus low involvement with the event compared to football respondents. Therefore, the influence of involvement with the event on basketball respondents’ recognition of sponsors may have become marginal.

Similar to what was observed within football respondents, involvement with the event did not have a statistically significant influence on basketball respondents’ recall of sponsors. As previously noted, it can be argued that high levels of involvement with the event implies that much of the respondents’ attention was focused on the action taking place on the basketball and, therefore, indirectly on embedded perimeter signage as well (Celsi & Olson, 1988; Mitchell, 1980; Pham, 1992). Although the current study suggests that a spectator’s level of involvement with the event (i.e., high or low) may influence spectators’ recognition of sponsors, researchers (e.g., Lardinoit & Debraix, 2001) have argued that an even greater amount of attention needs to be focused directly on processing the advertisements (i.e., perimeter signage) in order to have a meaningful influence on spectators’ (e.g., basketball respondents’) recall of sponsors.

5.2.2.2 Involvement with the Event and Attendance at Games

Cornwell et al. (2000) and Lardinoit and Debraix (2001) suggested that more involved spectators will attend athletic events more frequently which, in turn, will increase the number of exposures to perimeter signage. For example, researchers (e.g., Bennett, 1999; Harshaw & Turner, 1999) have argued that because perimeter signage is embedded within athletic events, spectators are forcibly exposed to the advertisements.
Therefore, respondents who attended more games over the course of the season were automatically exposed to perimeter signage more frequently (i.e., experienced repeated exposure to the advertisements).

As was expected, football and basketball respondents who had high involvement with the event attended more home games over the course each team’s season than those who had low involvement with the event. It makes intuitive sense that the more enjoyable, exciting, entertaining, and fun a person finds an event, the more often they will attend. Cornwell et al. (2000) found that involvement with a particular sport had “a positive influence on game attendance and resulting exposure to sponsors’ messages” (p. 127). Likewise, Lardinoit and Debraix (2001) argued that “involvement may...play a crucial role in promoting the effectiveness of sponsorship, because it is a central factor in bringing the individual to watch sports events more frequently and for longer periods of time, and thus is instrumental in achieving and extending exposure to sponsors’ messages” (p. 185).

5.2.2.3 Repeated Exposure

Petty and Cacioppo (1986) suggested that repeated exposure to an ad stimulus should result in higher recall and/or recognition accuracy. As is consistent with this notion, several researchers (e.g., Bennett, 1999; Slattery & Pitts, 2002; Turco, 1994 and 1996) have argued that repeated exposure to perimeter signage increases spectators’ recall and/or recognition of sponsors. Turco (1994) stated that the more spectators are exposed to sponsorship stimuli, the more accurately they should recall and/or recognize company brand names.
It was expected that repeated exposure to perimeter signage (i.e., the number of games spectators attended over the course of the season) would have a positive influence on spectators' recall and recognition of sponsors. More specifically, it was believed that football and basketball respondents who were exposed to perimeter signage more often (i.e., respondents who attended a greater number of home games) would recall and recognize more sponsors' brand names. However, within the current study, it became apparent that repeated exposure was an extraneous variable when attempting to understand the factors that influence football and basketball respondents' recall and recognition of sponsors. In large part, the decision to remove this variable from subsequent statistical analyses can be attributed to the fact that at the time of data collection, it was possible for respondents attending each sporting event to be exposed to perimeter signage a maximum of three times.

Several researchers (Cornwell et. al., 1997; Cornwell et al., 2000; Slattery & Pitts, 2002) have argued that a more long-term approach to measuring the influence of repeated exposure on spectators' recall/recognition may yield more favourable results. Slattery and Pitts (2002) stated that, "an overwhelming majority of sponsorship research in the academic literature involves sponsorship awareness assessments at an individual event. This type of evaluation is more likely to yield results that show that spectators' short exposure time to sponsor advertising is an evaluation of a 'one-shot' impression" (p. 170). In the present study, football and basketball respondents' recall and recognition of sponsors was only assessed at a single event which occurred relatively early in each of the teams' seasons (i.e., at the third home game). Therefore, respondents did not have
many opportunities to be exposed to perimeter signage prior to completing the recall and recognition test.

Pokrywcynski (1994) argued that spectators must be exposed to perimeter signage several times before it has an impact on memory. In fact, the author suggested that perimeter signage requires many more exposures than traditional advertising to generate the same amount of awareness. According to Pokrywcynski, at least 20 exposures to signage are needed to generate the same amount of awareness that one television ad would require. Therefore, only having the possibility for a maximum of three exposures to perimeter signage may not have been enough to impact respondents' memory in any meaningful way.

Given that football and basketball respondents in the present study had few opportunities to be exposed to the advertisements prior to data collection may also help explain why involvement with the event did not emerge as having a significant influence on respondents' recall of sponsors. Several advertising researchers (e.g., Greenwald & Leavitt, 1984; Krugman, 1965 and 1967; Leavitt et al., 1981) have argued that under conditions where minimal attention towards an advertisement exists, memory can be impacted with repeated exposures. It can be argued that the majority of highly involved spectators' attention was focused on the action taking place on the field or court and was not directly aimed at processing perimeter signage. Therefore, it is possible that football and basketball respondents who had high involvement with the event would have been able to recall a significantly greater percentage of sponsors than those who had low involvement with the event if they had been exposed to perimeter signage more often (i.e., more than a maximum of three times).
5.2.2.4 Involvement with the Advertisements

Slattery and Pitts (2002) suggested that there has only been minimal research in sport sponsorship which utilizes theories relating to the influence of involvement with the advertisement on spectators’ ability to remember sponsors of an athletic event, and that future research in sponsorship recall and recognition should explore theories examining this relationship. The authors stated that, “we believe the use of these [involvement] theories will deepen the analysis, knowledge, and understanding that exist in the current state of literature in sport sponsorship” (p. 169).

Petty and Cacioppo (1981a) defined involvement with the advertisement as the perceived personal relevance the ad has for the individual. To date, research examining involvement with the advertisement’s influence on spectators’ recall and recognition of sponsorship stimuli (e.g., perimeter signage) has been limited. A study conducted by Donthu et al. (1993) found that highway commuters who were more involved with outdoor advertisements had higher recall and recognition than those commuters with low involvement with the advertisements. In addition, Petty and Cacioppo (1983) suggested that recall and recognition of a brand name for a magazine advertisement was greater under conditions of high involvement than low involvement. Based on Donthu et al. and Petty and Cacioppo’s findings, one could argue that, within a sponsorship context, spectators who are more involved with perimeter signage should have higher recall and recognition of sponsors’ brand names.

Football respondents who had high involvement with the advertisements (i.e., those individuals who viewed sponsors’ perimeter signage as appealing, valuable, and important) had significantly higher brand name recall of sponsors that advertised on
perimeter signage than those individuals with low involvement with the advertisements. In fact, involvement with the advertisements accounted for 7.2% of the variation in football respondents’ recall scores ($\eta^2 = .072$). This finding is consistent with much of the advertising literature that has examined the influence of a consumer’s level of involvement with an advertisement on their motivation to process, attend to, and remember the ad (e.g., Buchholz & Smith, 1991; Laczniak & Carlson, 1989; Mitchell, 1980; Mitchell et al., 1980; Petty & Cacioppo, 1981b; Petty et al., 1983).

Petty et al. (1983) argued that the processing of an advertisement can either take a central or peripheral routed based on an individual’s level of involvement with an advertisement. The authors suggested that under conditions of high involvement with an advertisement, an individual actively processes the content of the message contained within the advertisement (i.e., the processing of the message takes a central route). Conversely, Petty et al. argued that under conditions of low involvement with an advertisement, an individual will not process the relevant content of the message contained within the advertisement, and instead focuses on the non-content features of the ad (i.e., the processing of the message takes a peripheral route).

In the current study, it can be argued that football respondents who had high involvement with the advertisements had significantly higher recall of sponsors than those who had low involvement with the advertisements because these individuals adopted a more central, as opposed to a peripheral, route to the processing of perimeter signage (e.g., Petty & Cacioppo, 1981b; Petty et al., 1983). It could be the case that football respondents who had high involvement with the advertisements spent more time processing the content (e.g., brand names) contained within the advertisements than those
who had low involvement with the advertisements who spent more time processing the non-content features of advertisements (e.g., the attractiveness of the ad) such as size, images, and colours (e.g., Petty & Cacioppo). Indeed, Mitchell (1980) argued that individuals who take a more central route to processing a message should be better able to retrieve, from memory (i.e., recall), information contained within the ad’s message content (e.g., a brand name).

Similar to Petty et al.’s (1983) notion of the central and peripheral routes to message processing, Mitchell et al. (1980) suggested that individuals with high involvement with an advertisement pay more attention to the ad and execute a brand processing strategy (i.e., search for information contained within the ad). Mitchell et al. found that individuals who executed a brand processing strategy (i.e., those who had high involvement with an advertisement) were able to retrieve relevant brand information from the advertisement (e.g., a brand name, address, telephone number) faster and with greater recall accuracy than those individuals who did not execute a brand processing strategy (i.e., those who had low involvement with the advertisement). As it relates to the current study, Mitchell et al.’s findings suggest that football respondents who had high involvement with the advertisements (i.e., perimeter signage) may have paid more attention to the ads and executed a brand processing strategy. This notion may also help explain why football respondents who had high involvement with the advertisements had significantly higher recall of sponsors’ brand names from perimeter signage than those who had low involvement with advertisements.

On average, football respondents who had high involvement with advertisements recognized a higher percentage of sponsors’ brand names from perimeter signage than
those with low involvement with advertisements. However, involvement with the advertisements did not have a statistically significant influence on football respondents’ recognition of sponsors. This finding does not appear to be consistent with past research (e.g., Donthu et al., 1993; Petty et al., 1983) which found a significant positive relationship between involvement with the advertisements and both awareness measures (i.e., recall and recognition). For example, Petty et al., found that individuals who had high involvement with a fictitious magazine advertisement had significantly higher recall and recognition of the company’s brand name than those who had low involvement with the advertisement. Likewise, Donthu et al., found that highway commuters who had high involvement with viewing outdoor advertisements (i.e., those individuals who paid more attention to the ads) had significantly higher recall and recognition of information contained in the advertisements (e.g., brand names) than those who had low involvement with viewing outdoor advertisements (i.e., those individuals who paid less attention to the ads).

The fact that involvement with the advertisements did not emerge to have a significant influence on football respondents’ recognition is counterintuitive. However, perhaps this finding can be attributed to the way in which the survey instruments used in the current study were designed. On the questionnaire, respondents were asked to complete the recall test first, before beginning the recognition test. Therefore, respondents were faced with a more difficult memory task before completing the less memory intensive recognition test. Respondents who had high involvement with the advertisements may have spent more cognitive effort trying to recall sponsors’ brand names than those who had low involvement with the advertisements. It is possible that
respondents who had high involvement with the advertisements were fatigued (i.e., mentally drained) by the time they began the recognition test, which may have had a negative impact on their ability to accurately complete the recognition test. Therefore, respondent fatigue may have played a key role in minimizing the difference between football respondents' who had high versus low involvement with the advertisements and their ability to recognize event sponsors.

Indeed, the current study required respondents to recall more brand names than respondents in previous studies (e.g., Donthu et al., 1993; Petty et al., 1983) where involvement with the advertisements had a significant influence on both recall and recognition measures. In the present study, football and basketball respondents were asked to recall 14 and 18 sponsors' brand names respectively. In contrast, Donthu et al. required respondents to recall 10 outdoor advertisements while Petty et al. asked subjects to recall brand names for 10 magazine advertisements. Therefore, it is possible that respondents in the current study experienced fatigue when completing the recognition test compared to respondents who participated in the Donthu et al. and Petty et al. studies. In addition, unlike Donthu et al. and Petey et al. who used experimental settings when conducting their research, the current study measured respondents' recall and recognition of sponsors in a natural (i.e., more realistic) setting.

On average, basketball respondents who had high involvement with the advertisements recalled and recognized more sponsors' brand names from perimeter signage than those who had low involvement with the advertisements. However, involvement with the advertisements did not have a statistically significant influence on basketball respondents' recall or recognition of sponsors. Perhaps, involvement with the
advertisements was not significantly related to basketball respondents’ recall of sponsors because of how conducive the speed of play is to the processing of perimeter signage. For example, there are not nearly as many stoppages in play during basketball games compared to football games to allow spectators to focus their attention solely on perimeter signage (Stotlar & Johnson, 1989) which, in turn, may have limited basketball respondents’ ability to take a central route to the processing of perimeter signage (e.g., Petty & Cacioppo, 1981b; Petty et al., 1983) or to activate a brand processing strategy (e.g., Mitchell et al., 1980).

Similar to what was observed with football respondents, involvement with the advertisements did not have a statistically significant influence on basketball respondents’ recognition of sponsors. Basketball respondents who had high involvement with the advertisements may have spent more cognitive effort trying to recall sponsors’ brand names than those who had low involvement with the advertisements. Therefore, it may be the case that basketball respondents who had high involvement with the advertisements became fatigued (i.e., mentally drained) when completing the subsequent recognition test, resulting in lowered recognition scores.

5.2.2.5 Modified Conceptual Framework

In the case of research question two, three of the seven hypotheses were supported. First, the analysis suggested that involvement with the event had a significant influence on football respondents’ recognition of perimeter signage. Second, the analysis revealed that involvement with the advertisements (i.e., perimeter signage) had a significant influence on football respondents’ recall of perimeter signage. Third, the results indicated that football and basketball respondents who had high involvement with
the event attended more games over the course of each team’s season. However, repeated exposure (i.e., the number of games spectators’ attended over the course of the season) did not appear to have a meaningful influence on football or basketball respondents’ recall and recognition of sponsors. Therefore, this factor was removed from the MANOVA analyses. Based on the results of hypotheses testing, a modified conceptual framework for each sporting event was constructed in order to illustrate the significant relationships that emerged from each analysis (refer to Figure 5.1 and 5.2 for the modified conceptual frameworks that emerged from the football and basketball game respectively).

Figure 5.1 Modified Conceptual Framework (Football Game)

![Diagram of Modified Conceptual Framework (Football Game)]
In contrast to what was observed among football respondents, involvement with the event did not have a significant influence on basketball respondents’ recall or recognition of perimeter signage. In addition, involvement with the advertisements did not have a significant influence on basketball respondents’ recall or recognition of perimeter signage.

Figure 5.2 Modified Conceptual Framework (Basketball Game)

As is consistent with the present study’s findings, Cornwell et al. (2000) found that involvement with the sport positively influenced respondents’ attendance at games. However, after finding no direct relationship between involvement with a sport and spectators’ recall or recognition of sponsorship stimuli, Cornwell et al. stated that, “it is entirely reasonable that involvement with the sport would not directly influence awareness of sponsors. It is also possible that a different measure of involvement might show a more direct relationship” (p. 139). Indeed, within the current study, two different
measures of involvement than those utilized by Cornwell et al. did show a more direct relationship with spectators’ recall and recognition of sponsors. First, involvement with attending the University’s home football games (i.e., involvement with the event) appeared to have a positive influence on respondents’ recognition of sponsors. Second, involvement with the advertisements (i.e., perimeter signage) appeared to have a positive influence on football respondents’ recall of sponsors.

5.2.3 Research Question Three: Are there Sport Differences in the Recall and Recognition of Embedded Sponsorship Stimuli?

It was expected that respondents from the football game would have significantly higher recall and recognition of sponsoring companies’ brand names compared to those respondents from the basketball game. This notion is consistent with past research (e.g., Stotlar & Johnson, 1989) which suggests that football games are better suited for the processing of perimeter signage. Stotlar and Johnson argued that football games allow spectators more time to directly process perimeter signage because there are more stoppages in play compared to the more non-stop action that occurs in basketball games.

Based on the pace of the game, Stotlar and Johnson (1989) speculated that football spectators should have higher recall and recognition accuracy compared to basketball spectators. In the case of research question three, the hypothesis that football respondents would have significantly higher recall of sponsors’ brand names was supported. However, the hypothesis that football respondents’ would have significantly higher recognition of sponsors’ brand names was not supported.

As was expected, football respondents were able to recall a greater percentage of sponsors that advertised on perimeter signage than basketball respondents. This finding is
consistent with Stotlar and Johnson (1989) who found that football spectators noticed more stadium advertisements than basketball spectators. Therefore, as was suggested by Stotlar and Johnson, it appears that football respondents in the current study had higher levels of recall because they had more time to process perimeter signage than basketball respondents (i.e., there were more stoppages in play during football game).

Further, the fact that football respondents had higher recall of sponsors is consistent with this study’s finding which suggests that football respondents who had high involvement with the advertisement (i.e., perimeter signage) were able to recall a significantly greater percentage of sponsors brand names. Overall, football respondents were more involved with perimeter signage than basketball respondents which may explain, in part, the heightened levels of recall among those respondents who attended the football game.

Contrary to what was expected, basketball respondents were able to recognize a significantly greater percentage of sponsors that advertised on perimeter signage than football respondents. This finding is also consistent with Stotlar and Johnson (1989) who found that basketball spectators had higher recognition of sponsors than football spectators. The authors argued that basketball fans are closer to perimeter signage than are football fans. In the current study, it may have been easier for respondents who attended the basketball game to process and recognize perimeter signage while watching the game because they were closer to the ads than were respondents who attended the football game.

Further, the finding that respondents who attended the basketball game had higher recognition of sponsors is consistent with the finding that football respondents who had
high involvement with the event (i.e., the University’s home games) were able to recognize a significantly greater percentage of sponsors' brand names. For instance, overall, basketball respondents were more involved with the University’s home games than football respondents which may explain the heightened levels of recognition among those respondents who attended the basketball game.

5.3 Limitations

There were limitations associated with the current study. As with Pham’s (1992) study, background factors such as spectators' prior familiarity with the sponsors' brands advertised on the signage present at each of the athletic events was not controlled for within this study. Respondents may have had high levels of brand awareness for some of these brands either from product use or some other form of communication even before attending any of the events. This prior familiarity with one or more of the sponsor’s brand may serve to bias the results of brand name recall and recognition tests. However, as Pham suggested, “this is a common drawback of using real marketing stimuli instead of artificial ones” (p. 91).

As was noted by Pham (1992), restricting an investigation that measures awareness of sponsors to only the visible signage present at the event (as was done in the current study) was a limitation of his study. Brooks (1994) suggested that measuring the communication effectiveness of sponsors' messages through awareness (i.e., recall and recognition tests) may be problematic because, typically, a company will use other marketing and communication tools, in addition to sponsorship, to enhance brand name awareness. Therefore, it becomes difficult to isolate the sponsorship element (i.e., perimeter signage) and measure its effect on spectators of an athletic event (Brooks). The
fact that an individual is able to identify a sponsor’s brand name that was on a sign surrounding a football field may be because the company is widely advertised on television or radio and, in fact, may have nothing to due with the brand’s association with the athletic event.

In addition to having the possibility that recall and recognition of sponsors’ brand names are influenced by advertising and communications that exists outside of an athletic event, such measures may also be impacted by the variety of sponsorship communication vehicles that may be present within an athletic event as well. Sponsors of today’s athletic events seek to leverage their brands through sponsorship arrangements by looking for several opportunities to associate themselves with the event or team (IEG, 1997). For example, a company may receive on-site signage, an advertisement in the team’s printed promotional material (e.g., a program), and an on-site retail opportunity from the agreement. Therefore, an individual may be able to recall and/or recognize a sponsor’s brand name because of another sponsorship communication vehicle present at the event and not solely from perimeter signage as has been established in this study.

To illustrate this limitation, at the basketball and football game where the data was collected for this study, announcements were read to spectators acknowledging the support of the athletic departments sponsors (refer to Appendix N and O for a copy of the announcements that were read by the public address announcer at the football and basketball games respectively). Here, the sponsors’ brand names were read aloud to spectators in attendance at the events. In addition, at each of the sporting events, some companies that advertised on stadium or gym signage also had an advertisement in the games’ programs that were distributed to spectators as they entered the stadium or gym.
(see Appendix P and Q for a copy of the football and basketball games’ programs respectively). Therefore, respondents’ brand name recall and recognition of sponsors may stem from one of these communication vehicles instead of from the events’ signage. In order to limit this from occurring, questions on the survey relating to the recall and recognition of sponsors’ brand names were designed to clearly indicate that respondents were to only remember names from the signage that was present at the athletic events. Also, research assistants were trained to convey this message to subjects when any confusion may have arisen (i.e., when respondents were unsure of what brand names the question was referring to).

Studies using recall and recognition tests may be subject to what some researchers refer to as a market prominence bias or heuristic (e.g., Jorhar & Pham, 1999; Pham & Johar, 2001). For example, Johar and Pham found that identification accuracy (i.e., brand name recall and/or recognition accuracy) was higher when the event was sponsored by a prominent brand as opposed to a less prominent brand. Likewise, Pham and Johar found that “sponsor identification tends to be biased in favor of brands that are prominent in the marketplace” (p. 137). According to the authors, “market prominence refers to consumers’ use of variations in the market prominence of potential sponsors as a source of information when inferring the identity of event sponsors” (Pham & Johar, p. 124). Pham and Johar suggested that perceived market prominence may be a result of factors such as the brand awareness, market share, and visibility of a company. The authors stated that, “everything else equal, companies and brands that are perceived to be more prominent in the marketplace (e.g., Nike) are more likely to be identified (accurately or inaccurately) as event sponsors than brands that are less prominent (e.g., Converse)”
(Pham & Johar, p. 124). Pham and Johar argued that one of the reasons that sponsor identification is biased in favour of more prominent brands is because these brands are more accessible from memory and therefore, are more likely to be retrieved when completing sponsor identification tasks (e.g., recall and recognition tests) than are less prominent brands. Thus, within the current study, spectators may have recalled and recognized brands such as Pepsi and McDonalds not because they remember being exposed to their signage at the events, but rather because brand names for these companies were easily accessible from memory (i.e., had higher perceived market prominence) when completing the survey.

In addition to market prominence bias, Johar and Pham (2001) also suggested that sponsor and event relatedness is a second major heuristic that spectators rely on when completing sponsor identification tasks such as the ones that are used in the current study (i.e., recall and recognition tests). Johar and Pham stated that, “relatedness capitalizes on the semantic relationship that many consumers assume should exist between events (e.g., a track-and-field competition) and the sponsoring companies (e.g., athletic shoes)” (p. 124). The authors argued that, “companies and brands that appear to be related to an event are more likely to be identified as the actual sponsors of the event than companies and events that seem unrelated” (p. 124). Within the current study, Saxson and Wilson sporting goods may not have been recalled or recognized from their event signage that was present at the football and basketball game, but rather for their relatedness to the two sporting events in general (the two companies manufacture and supply several football and basketball events, including the events in this study, with essential equipment such as game balls and team uniforms). Therefore, spectators may assume that a relationship
exits between these sporting good companies and the sporting events examined within this research, thereby inflating respondents’ recall and recognition scores.

The present study sought to understand spectators’ short-term responses to sponsorship stimuli present at an athletic event. Spectators were surveyed (i.e., given recall and recognition tests) as soon as they left the stadium or gym. However, Cornwell et al. (2000) suggested that most people can recall or recognize what they just saw or heard (e.g., a sponsor brand name on perimeter signage). The authors explained that responses to sponsorship of interest to marketing managers should involve more long-term memory. A long-term approach is of greater interest to marketers because “unless the product is being sold on site, people must be able to recall or recognize the brand days or weeks later” (Cornwell et al., p. 140).

Recall and recognition scores from the basketball game may be inflated as a result of the possible differences in the length of time spectators were exposed to sponsors’ signage during each of the sporting events examined in this study. The basketball game was the second game of a double header that featured the University’s Women’s varsity game first. Several spectators may have stayed for the duration of both events. Therefore, some spectators of the Men’s basketball game may have been exposed to event signage for as long as four hours. This is almost double the amount of time spectators could have been exposed to signage at the football game. Nevertheless, spectators who attended the Women’s basketball game beforehand can still be considered spectators of the Men’s basketball game, and therefore, they were not excluded from participating in the study.

While the home University controlled the basketball venue that was examined in this study, the football stadium was actually controlled and operated by the visiting
team’s University, thereby opening the potential for sponsor and signage conflicts. For example, Dominos pizza was present on a sign at the football game, however, the Pizza Pizza brand was actually sold at the event and had a permanent logo on the surface of the football field. This situation may have made the recall and recognition tests challenging especially when subjects were asked to distinguish between these two brands in the recognition test. Indeed, Peltier and Schilbrowsky (1992) argued that “when distractors [dummy companies] are too similar to targets [actual sponsors], the task becomes very difficult and memory differences that otherwise may have existed may also be eliminated” (p. 98).

It is difficult to generalize the results of this study to other populations of spectators. Sporting events take place in a variety of settings (e.g., professional, amateur, American Universities, Canadian Universities), all of which have different sponsors and signage opportunities. Therefore, because each event or team is unique in terms of its sponsors and the spectators it draws (e.g., demographics, attendance patterns, number of spectators present, interest level) it is difficult to apply the results of this study to spectators attending other sporting events. The results are valid only within the context of the current study. The framework needs to be examined in a variety of other sport settings in order come to a consensus regarding the nature and direction of factors that influence spectators’ recall and recognition of sponsors.

Finally, in the current study, the hypotheses relating to the differences between recall and recognition as a means of measuring spectators’ awareness, and sport differences in the recall and recognition of perimeter signage were not tested in the
MANOVA analyses. Therefore, there was an increased likelihood for making a Type I error (i.e., rejecting the null hypothesis when it is true) when analyzing these results.

5.4 Implications for Sport and Recreation Marketers

Now, more than ever, sponsors of athletic events demand to see evidence of a commercial return, such as enhanced brand awareness, for their investment of cash or non-cash resources (Lough et al., 2000). The current study suggests that recognition tests produce higher memory scores compared to recall tests when measuring the effectiveness of stadium signage. Although recall tests have been described as a more powerful measure advertising effectiveness (Aaker, 1991; Du Plessis, 1994), sport and recreation properties attempting to show sponsors a maximum return on investment should use data consistent with recognition measures.

Sport and recreation marketers can play a key role in helping event sponsors realize their desired awareness objectives. The present study suggests that perimeter signage does influence spectators' awareness of sponsoring companies when the event (e.g., the University’s home football/basketball games) and the medium (i.e., perimeter signage) are viewed by spectators in a positive manner. By offering enjoyable and involving events, sport and recreation marketers may not only increase attendance at their venues, but also may help increase spectators' brand name recognition of event sponsors. Likewise, by ensuring that perimeter signage is interesting and appealing, sport and recreation marketers may help increase spectators' brand name recall of event sponsors. Indeed, efforts should be made by sport and recreation marketers to draw spectators' attention to perimeter signage and to explain the value and importance of such initiatives.
The current study also found that there were differences in the recall and recognition of sponsors between spectators of two different sporting events. This finding suggests that a sport or recreation marketer may be able to charge an organization more for sponsoring certain types of events because they produce higher levels of brand awareness (i.e., recall and/or recognition). Therefore, it is important for sport and recreation marketers to conduct recall and/or recognition tests periodically in order to determine which events generate the most amount of brand awareness so that they charge association fees accordingly.

5.5 Recommendations for Future Research

Although the current study looked at the effect of signage on brand name recall and recognition, it can be hypothesized that complementary advertising (e.g., companies who have several sponsorship communication vehicles present at an athletic event) should result in higher levels of spectator recall and recognition than those sponsors that only use one form of communication (e.g., advertise only event signage). Future research in sponsorship identification should explore this relationship.

Sales are the ultimate goal of advertising (Naccarato & Neuendorf, 1998). Future research should continue to examine the relationship between awareness of event sponsors (i.e., a spectators’ ability to recall and/or recognize brand names from perimeter signage) and subsequent sales. One of the first studies examining this relationship was conducted by Shannon and Turley (1997) at an NCAA division 1 institution’s varsity men’s and women’s basketball games. The authors found that in-arena promotions (e.g., signage) can influence both the purchase intentions and purchase behaviour of spectators of an athletic event.
To show that awareness of event sponsors leads spectators to subsequently purchase products or services is a major challenge facing sponsorship researchers. After being exposed to a perimeter sign, a spectator may make a purchase from the sponsor that day, or several years later. Therefore, it is important that future research attempts to develop more sound methods of tracking purchases from event sponsors.

Researchers have examined the influence of involvement with mediums such as magazine advertisements (e.g., Petty et al., 1983) and outdoor advertisements (e.g., Donthu et al., 1993) on consumers’ recall and recognition. However, there have been few studies in the sponsorship literature examining the influence of a spectators’ level of involvement with perimeter signage on the recall and recognition of sponsors. Future research should continue to explore the nature and direction of this relationship.

There has been a considerable amount of research examining how individual spectator characteristics influence brand name recall and/or recognition. The current study examined characteristics such as spectators’ level of involvement with the sporting event, level of involvement with the advertisements (i.e., perimeter signage), and the influence that repeated exposure to perimeter signage has on spectators’ recall and recognition of sponsors. However, there has only been a limited amount of research aimed at understanding how specific characteristics of the medium itself (i.e., perimeter signage) influences spectators’ recall/recognition. Therefore, future research should explore how these advertisements’ presentational characteristics (e.g., size, colour, logo, shape, and font) affect spectators’ brand name recall/recognition.

Future research using recognition measures should continue to assess respondents’ level of confidence in their responses. This technique has the potential to
limit respondent guessing and may yield some interesting results. For example, one can speculate that the more confident respondents are in the companies they have selected, the higher their recognition accuracy should be.

5.6 Concluding Remarks

Turco (1996) suggested that perimeter signage sales are a major revenue source for sport operations and are being pursued more aggressively than ever before. In order to determine whether brand awareness objectives are being met from this form of promotion, it is important for sport and recreation organizations to understand what influences a spectators’ ability to remember brand names of these companies. If sport and recreation organizations can quantify and report enhanced brand awareness to event sponsors, they may gain considerable financial resources and ensure the long-term stability of the partnership (Turco, 1996). With increased revenues, sport and recreation providers can improve the quality of their event/service offerings.
REFERENCES


Appendix A: Signage Diagram (Football Game)
Appendix B: Signage Diagram (Basketball Game)
Appendix C: Research Ethics Approval (Brock University)

Senate Research Ethics Board

DATE: September 16, 2003

FROM: Joe Engemann, Chair
Senate Research Ethics Board (REB)

TO: Paula Johnson Tew, Recreation and Leisure Studies
Luke Potwarka

FILE: 03-029, Potwarka

TITLE: A Framework for Understanding the Factors that Impact Spectators’ recall and Recognition of Embedded Sponsorship Stimuli

The Brock University Research Ethics Board has reviewed the above research proposal.

DECISION: Accepted as clarified.

This project has been approved for the period of September 16, 2003 to November 26, 2003 subject to full REB ratification at the Research Ethics Board’s next scheduled meeting. The approval may be extended upon request. The study may now proceed.

Please note that the Research Ethics Board (REB) requires that you adhere to the protocol as last reviewed and approved by the REB. The Board must approve any modifications before they can be implemented. If you wish to modify your research project, please refer to www.BrockU.CA/researchservices/forms.html to complete the appropriate form REB-03 (2001) Request for Clearance of a Revision or Modification to an Ongoing Application.

Adverse or unexpected events must be reported to the REB as soon as possible with an indication of how these events affect, in the view of the Principal Investigator, the safety of the participants and the continuation of the protocol.
If research participants are in the care of a health facility, at a school, or other institution or community organization, it is the responsibility of the Principal Investigator to ensure that the ethical guidelines and approvals of those facilities or institutions are obtained and filed with the REB prior to the initiation of any research protocols.

The Tri-Council Policy Statement requires that ongoing research be monitored. A Final Report is required for all projects, with the exception of undergraduate projects, upon completion of the project. Researchers with projects lasting more than one year are required to submit a Continuing Review Report annually. The Office of Research Services will contact you when this form REB-02 (2001) Continuing Review/Final Report is required.

Please quote your REB file number on all future correspondence.
Appendix D: Research Ethics Approval (University of Waterloo)

The recommended revisions/additional information requested in the initial ethics review of your ORE application entitled 'A framework for understanding the factors that impact spectators' recall and recognition of embedded sponsorship stimuli' ORE #11115 have been reviewed and are considered acceptable. As a result, your application now has received full ethics clearance.

A signed copy of the Notification of Full Ethics Clearance will be sent to the Principal Investigator or Faculty Supervisor in the case of student research.

ADDITIONAL REVISIONS OR RESPONSES TO COMMENTS:

N/A

******************************************************************************

Note 1: This clearance is valid for four years from the date shown on the certificate and a new application must be submitted for on-going projects continuing beyond four years.

Note 2: This project must be conducted according to the application description and revised materials for which ethics clearance have been granted. All subsequent modifications to the protocol must receive prior ethics clearance through our office and must not begin until notification has been received.

Note 3: Researchers must submit a Progress Report on Continuing Human Research Projects (ORE Form 105) annually for all ongoing research projects. In addition, researchers must submit a Form 105 at the conclusion of the project if it continues for less than a year.

Note 4: Any events related to the procedures used that adversely affect participants must be reported immediately to the ORE using ORE Form 106.

Good luck with this project.

Susanne

Susanne Santi
Manager, Research Ethics
Office of Research Ethics
NH 1027
University of Waterloo
Waterloo, Ontario
Canada N2L 3G1

Phone: 1-519-888-4567 ext. 7163
Fax: 1-519-725-9971
Appendix E: Stadium Announcement (Football Game)

Please read the following during the football game:

Ladies and Gentleman, when you leave University Stadium today, you are invited to participate in a study being conducted in partnership with the University of Waterloo’s athletic department. The study pertains to Intercollegiate sporting events. Participation in the study is completely voluntary and should require no more than about five minutes of your time. If you choose to participate, in recognition of your contributions to this study, you will receive a ticket to any future Warriors home game and gift certificates for two local restaurants.

Research assistants will be located at the exits as you leave the stadium, if you wish, please take a few moments and participate in the survey. Your responses are important to us.

Thank you.
Appendix F: Gym Announcement (Basketball Game)

Please read the following during the basketball game:

Ladies and Gentleman, when you leave the gym today, you are invited to participate in a Masters Thesis study being conducted in partnership with the University of Waterloo’s athletic department. Participation in the study is completely voluntary and should require no more than about five minutes of your time. If you choose to participate, in recognition of your contributions to this study, you will receive a ticket to any future Warriors home game and gift certificates for two local restaurants.

Research assistants will be located at the exits as you leave the gym, if you wish, please take a few moments and participate in the survey. Your responses are important to us.

Thank you.
Appendix G: Verbal Script For Recruitment of Participants

Hello, my name is ______________ and I am assisting in a study being conducted by Luke Potwarka, a Graduate student in the Department of Recreation and Leisure Studies at Brock University. He is currently working on my Masters thesis under the supervision of Dr. Paula Johnson Tew at Brock University. We are conducting a study pertaining to the sponsorship of sporting events. The University of Waterloo’s athletic department is supporting this research.

If you are leaving the stadium/gym at this time and choose to volunteer as a participant in this study, you will be asked to fill out a brief questionnaire. We request that if you work for the University of Waterloo’s Athletic Department that you do not complete the survey. The survey should take you no longer than 5 minutes to complete. The questions on the survey will assess your ability to remember the sponsors of the sporting event you have just watched, the number of games you have attended over the course of the season, and your level of interest (involvement) with the sporting event and sponsor advertisements (signage). There are no right or wrong answers, however, we would ask that you not refer to any other materials that may contain the event’s sponsors such as a program or media guide when completing the survey.

For your participation in today’s study we will be offering you a free ticket for any future home basketball/football game and gift certificates for two local restaurants.

This project has received ethics review and clearance through the Office of Research Ethics at the University of Waterloo and by the Research Ethics Board at Brock University.

If you are interested in participating in this study please take this questionnaire, complete it, and return it to me.

Thank you very much.
Appendix H: Information Letter

Brock University / University of Waterloo

Department of Recreation and Leisure Studies
Brock University
St. Catharines, ON. L2S 3A1

September 20, 2003 / November 26, 2003


Dear Sir or Madam,

You are being invited to participate in a Masters thesis study that is being conducted by Luke Potwarka, a graduate student in the Department of Recreation and Leisure Studies at Brock University under the supervision of Professor Paula Johnson Tew. Although you may not personally benefit from your participation in this study, the information that is gained from this research will help us to better understand the effectiveness of sport sponsorship initiatives at Canadian Universities. The purpose of this study is to determine some of the factors that impact spectators’ ability to remember sponsors of an athletic event. Thus, I would appreciate the opportunity to explain some of the details of the study.

Participation in this study is voluntary and would involve filling out a brief 5 to 7 minute survey before leaving the stadium/gym. The questions on the survey will assess your ability to remember the sponsors of the sporting event you have just watched, the number of games you have attended over the course of the season, and your level of interest (involvement) with the sporting event and sponsor advertisements (signage). Once the survey is completed, we would ask that you return it to the research assistant, and you will receive a free ticket to a future Warriors home game as well as two food vouchers for local restaurants.

There are no known or anticipated risks for your participation in this study. You may decline answering any questions you feel you do not wish to answer. All information you provide will be considered confidential and grouped with responses from other participants. Further, you will not be identified by name in my report, future thesis or any publication resulting from this study. The data collected through this study will be kept for a period of 1 year in my supervisor’s office at Brock University. It is estimated that the results of this study will be ready in June of 2004. If you wish to view the results from this study contact me by email in the next couple of days at Luker15@hotmail.com. I will email you a summary of the results when they are ready.

If you have any questions about this study or would like additional information to assist you in reaching a decision about participation please see one of the research assistants. If,
after completing the survey, you still have questions about the study or any procedures used in it, please feel free to contact Professor Paula Johnson Tew at pjohnson@brocku.ca.

As with all University of Waterloo projects involving human participants, this project has been reviewed by, and received ethics clearance through, the Office of Research Ethics at the University of Waterloo. Should you have any comments or concerns resulting from your participation in this study, please contact Dr. Susan Sykes in the Office of Research Ethics at 888-4567, ext. 6005. Or you may contact a Research Ethics Officer at Brock University 905-688-5550, ext. 3035. You may also contact Judy McCrae, the University of Waterloo’s director of athletics by email at jamccrae@uwaterloo.ca, or by phone at 519-888-4567 ext. 3663.

Thank you for your assistance with this project.

Yours sincerely,

Luke R. Potwarka
Student Investigator
Appendix I: Feedback Sheet to Participants

Brock University / University of Waterloo

Department of Recreation and Leisure Studies
Brock University
St. Catharines, ON. L2S 3A1

September 20, 2003 / November 26, 2003


Thank you for your participation in this study. The purpose of this project was to determine the factors that impact spectators’ ability to remember sponsoring company brand names on signage surrounding an athletic event through the use of two measures of advertising effectiveness (i.e., recall and recognition tests). It is believed that the more one attends the athletic event the better able he or she should be at remembering the event’s sponsors. This study also speculates that the more interested or involved spectators are with the event and sponsor advertisements, the more accurately they should recall/recognize company brand names. Further, a comparison of spectator recall and recognition will be made between the University’s football and basketball spectators.

The results from this study will help us in gaining a better understanding of measuring sport sponsorship effectiveness at Canadian Universities. Your participation in this study is appreciated and the information we learn will be quite valuable. It will take approximately six months before the results of this study are fully analyzed. If you would like to receive a summary of the results of this study or any reports that are written with the data collected, please contact me via email at Luker15@hotmail.com. In the meantime, I have included several references related to this study that may be of interest to you.

This project has been reviewed by, and received ethics clearance through, the Office of Research Ethics at the University of Waterloo and you may contact this office at (519) 888-4567, ext. 6005 if you have any comments or concerns resulting from your involvement in this study. This project was also reviewed by, and received ethics clearance through, the Research Ethics Board at Brock University and you may reach them at 905-688-5550, ext. 3035.

If you have any questions regarding the study itself, please contact Dr. Johnson Tew at 905-688-5550, ext. 4784 or by e-mail at pjohnson@brocku.ca. Or, you can also contact Luke Potwarka at Luker15@hotmail.com.
Related References:


Appendix J: The Survey Instrument (Football Game)

Introduction

There are five parts to this questionnaire. Instructions for filling out each part are provided at the beginning of each section. Remember, there are no “right” or “wrong” answers.

Part A

Please put a checkmark (✓) in the box that applies to you.

1. Sex:
   - Male
   - Female

2. How old are you? _________

3. Which team are you here to support today?
   - University of Waterloo Warriors
   - Wilfrid Laurier University Golden Hawks
   - Neither team**

**If you answered ‘neither team’ please skip to Part B, question 1, on the next page.

4. If you have selected the University of Waterloo Warriors or the Wilfrid Laurier University Golden Hawks in question 3, please place a checkmark (✓) in the box that most closely describes your association with this team. Please check only one box.

   - Alumnus of school
   - Currently enrolled student
   - Friend of participating player
   - Team booster club member
   - Relative of participating player
   - Former team participant
   - University employee
   - Other ___________________
Part B

The following two questions assess your ability to remember the sponsors of today's football game.

1. List all the **brand or company names** (including those of any campus / university organizations) that you can remember having seen **advertised on the signs located in front of the football field on the sidelines, which faced the seating area.**

*Once you have finished, please go to the next page.*
2. For each of the following sets of companies (each set consists of the company in the left hand column and the corresponding company in the right hand column, e.g., IBM and Descartes), please select the brand or company name (including those of any campus organizations) that you can remember having seen advertised on the signs located in front of the football field on the sidelines, which faced the seating area. Place a checkmark (√) in the appropriate box (select only one company per set).

There is only one correct company for each set of potential sponsors. DO NOT REFER TO THE PREVIOUS PAGE FOR HELP. For each company you have selected, please circle a number from one (not very confident) to five (very confident), that shows how confident you are that the brand name you have selected was actually on a sign surrounding the football field.

<table>
<thead>
<tr>
<th>IBM</th>
<th>Descartes</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>McDonalds</td>
<td>Burger King</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Imprint</td>
<td>The Cord</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Domino’s Pizza</td>
<td>Pizza Pizza</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Comfort Inn</td>
<td>Holiday Inn</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Pepsi</td>
<td>Coke</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Warrior Website</td>
<td>Hawk Website</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Wilson</td>
<td>Nike</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Champion Athletics</td>
<td>Saxon Athletics</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Morty’s Pub</td>
<td>Front Row</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Federation of Students</td>
<td>Student’s Union</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Toronto Sun</td>
<td>The Record</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Career Services</td>
<td>Campus Rec</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
Part C

Please choose the statement that best represents your attendance at University of Waterloo's (UW's) home football games so far this season.

1. Please place a checkmark (✓) in one of the boxes.

- This is the first UW home football game that I have attended this season.
- This is the second UW home football game that I have attended this season.
- This is the third UW home football game that I have attended this season.

Part D

This section refers to how you feel about UW Warrior football HOME games. Please complete all questions even if you have no interest in attending the University of Waterloo's home football games. The following questions DO NOT APPLY to Wilfrid Laurier University (WLU) Golden Hawks' home football games.

1. For each of the following items, please put a checkmark (✓) in the box that most reflects how you feel about your attendance at UW's home football games.

<table>
<thead>
<tr>
<th>Important</th>
<th>Of no concern</th>
<th>Unimportant</th>
<th>Of concern to me</th>
<th>Relevant</th>
<th>Means a lot to me</th>
<th>Means nothing to me</th>
<th>Matters to me</th>
<th>Risky</th>
<th>Easy to go wrong</th>
<th>Hard to go wrong</th>
<th>Easy to pick</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Appealing</th>
<th>Unappealing</th>
<th>Boring</th>
<th>Interesting</th>
<th>Unexciting</th>
<th>Exciting</th>
<th>Fun</th>
<th>Not Fun</th>
<th>Says something about me</th>
<th>Says nothing about me</th>
<th>Tells me about a person</th>
<th>Shows nothing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

195
Part E

This section refers to how you feel about the sponsors' advertisements (i.e., the signs located in front of the football field on the sidelines, which faced the seating area). Please complete all questions even if you have no interest in any of the sponsors or their products/services.

1. For each of the following items, please put a checkmark (✓) in the box that most reflects how you feel about the sponsors’ advertisements that were present at today’s football game.

   Important □ □ □ □ □ | Unimportant □ □ □ □ □
   Boring □ □ □ □ □ | Interesting □ □ □ □ □
   Relevant □ □ □ □ □ | Irrelevant □ □ □ □ □
   Exciting □ □ □ □ □ | Unexciting □ □ □ □ □
   Means nothing to me □ □ □ □ □ | Means a lot to me □ □ □ □ □
   Appealing □ □ □ □ □ | Unappealing □ □ □ □ □
   Fascinating □ □ □ □ □ | Mundane □ □ □ □ □
   Worthless □ □ □ □ □ | Valuable □ □ □ □ □
   Involving □ □ □ □ □ | Uninvolved □ □ □ □ □
   Not needed □ □ □ □ □ | Needed □ □ □ □ □

Thank-you for completing the questionnaire. Your participation in this study is greatly appreciated.

Please return the survey to the research assistant.

If you have questions about the study, please ask the research assistant. They will be happy to answer any questions you might have.
Appendix K: The Survey Instrument (Basketball Game)

Introduction

There are five parts to this questionnaire. Instructions for filling out each part are provided at the beginning of each section. Remember, there are no “right” or “wrong” answers.

Part A

Please put a checkmark (✓) in the box that applies to you.

1. Sex:
   - Male
   - Female

2. How old are you? _________

3. Which team are you here to support today?
   - University of Waterloo Warriors
   - Brock University Badgers
   - Neither team**

**If you answered ‘neither team’ please skip to Part B, question 1, on the next page.

4. If you have selected the University of Waterloo Warriors or the Brock University Badgers in question 3, please place a checkmark (✓) in the box that most closely describes your association with this team. Please check only one box.

   - Alumnus of school
   - Friend of participating player
   - Relative of participating player
   - University employee
   - Currently enrolled student
   - Team booster club member
   - Former team participant
   - Other ___________________
Part B

The following two questions assess your ability to remember the sponsors of tonight’s basketball game.

1. List all the **brand or company names** (including those of any campus / university organizations) which you can remember seeing **advertised on the signs surrounding the basketball court**. These signs were located on the floor behind each basket and were attached to the stands above the court.

Once you have finished, please go to the next page.
2. For each of the following sets of companies (each set consists of the company in the left hand column and the corresponding company in the right hand column, e.g., IBM and Descartes), please select the brand or company name (including those of any campus organizations) which you can remember seeing advertised on the signs surrounding the basketball court (i.e., the signs located on the floor behind each basket and those attached to the stands above the court) by placing a checkmark (√) in the appropriate box (select only one company per set).

There is only one correct company for each set of potential sponsors. Do not refer to the previous page for help. For each company you have selected, please circle a number from one (not very confident) to five (very confident), that shows how confident you are that the brand name you have selected was actually on a sign surrounding the basketball court.

<table>
<thead>
<tr>
<th>Set of Companies</th>
<th>Not Very Confident</th>
<th>Very Confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM &amp; Descartes</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>McDonald's &amp; Burger King</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Imprint &amp; UW Gazette</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Domino’s Pizza &amp; Pizza Pizza</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Comfort Inn &amp; Holiday Inn</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Waterloo Chronicle &amp; The Reporter</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Pepsi &amp; Coke</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Champion Athletics &amp; Saxon Athletics</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Warrior Website &amp; OUA Website</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Wilson &amp; Nike</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>B&amp;K Motors &amp; Midas Muffler</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Morty’s Pub &amp; Front Row</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Federation of Students &amp; Student Services</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Toronto Sun &amp; The Record</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Career Services &amp; Campus Rec</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>UW Homecoming &amp; UW Booster Club</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>UW Shop &amp; Computer Store</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Warrior Fan Club &amp; Warrior Kids’ Club</td>
<td>2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>
Part C

Please choose the statement that best represents your attendance at University of Waterloo’s (UW’s) home basketball games (varsity men’s) so far this regular season (not including the Naismith basketball tournament).

1. Please place a checkmark (√) in one of the boxes.

☐ This is the first UW home basketball game that I have attended this season.
☐ This is the second UW home basketball game that I have attended this season.
☐ This is the third UW home basketball game that I have attended this season.
Part D

This section refers to how you feel about UW Warrior basketball men’s home games. Please complete all questions even if you have no interest in attending the University of Waterloo’s home basketball games. The following questions DO NOT APPLY to Brock University Badgers’ home basketball games.

1. For each of the following items, please put a checkmark (\(\checkmark\)) in the box that most reflects how you feel about your attendance at UW’s home basketball games.

<table>
<thead>
<tr>
<th>Important</th>
<th>Unimportant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Of no concern to me</td>
<td>Of concern to me</td>
</tr>
<tr>
<td>Irrelevant</td>
<td>Relevant</td>
</tr>
<tr>
<td>Means a lot to me</td>
<td>Means nothing to me</td>
</tr>
<tr>
<td>Doesn’t matter to me</td>
<td>Matters to me</td>
</tr>
<tr>
<td>No Risk</td>
<td>Risky</td>
</tr>
<tr>
<td>Easy to go wrong</td>
<td>Hard to go wrong</td>
</tr>
<tr>
<td>Hard to pick</td>
<td>Easy to pick</td>
</tr>
<tr>
<td>Appealing</td>
<td>Unappealing</td>
</tr>
<tr>
<td>Boring</td>
<td>Interesting</td>
</tr>
<tr>
<td>Unexciting</td>
<td>Exciting</td>
</tr>
<tr>
<td>Fun</td>
<td>Not Fun</td>
</tr>
<tr>
<td>Says something about me</td>
<td>Says nothing about me</td>
</tr>
<tr>
<td>Tells me about a person</td>
<td>Shows nothing about a person</td>
</tr>
</tbody>
</table>
Part E

This section refers to how you feel about the sponsors’ advertisements (i.e., the signs that surrounded the basketball court, on the floor behind each basket and attached to the stands above the court). Please complete all questions even if you have no interest in any of the sponsors or their products/services.

1. For each of the following items, please put a checkmark (√) in the box that most reflects how you feel about the sponsors’ advertisements that were present at tonight’s basketball game.

| Important | | | | | | Unimportant |
|----------|---|---|---|---|---|
| Boring   | | | | | | Interesting |
| Relevant | | | | | | Irrelevant |
| Exciting | | | | | | Unexciting |
| Means nothing to me | | | | | | Means a lot to me |
| Appealing | | | | | | Unappealing |
| Fascinating | | | | | | Mundane |
| Worthless | | | | | | Valuable |
| Involving | | | | | | Uninvolving |
| Not needed | | | | | | Needed |

Thank-you for completing the questionnaire. Your participation in this study is greatly appreciated.

Please return the survey to the research assistant.

If you have questions about the study, please ask the research assistant. They will be happy to answer any questions you might have.
Appendix L: The Batch Recognition Survey (Pilot Study)

Respond to the following question by trying to remember the hockey game you have just watched.

For the following list of companies, please select all sponsor advertisements that you can remember having seen on the boards surrounding the ice surface by placing a check (✓) in the appropriate box (leave all other boxes blank).

Please try not to guess. If you are completely unsure if the company is one of the sponsors, please leave it blank. If you have any questions please raise your hand and the investigator will assist you.

1. IBM  
2. Subway  
3. Casino Niagara  
4. McDonalds  
5. Coffee Time Donuts  
6. Pizza Pizza  
7. Federal Express  
8. Siemens  
9. Air Canada  
10. Sprint Canada
<table>
<thead>
<tr>
<th></th>
<th>Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.</td>
<td>TD Waterhouse</td>
</tr>
<tr>
<td>12.</td>
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Once you have completed the survey please place it in the envelope, seal it, and return it to the researcher.
Appendix M: Two-Item Forced-Choice Recognition Survey (Pilot Study)

Respond to the following questions by trying to remember the hockey game you have just watched.

For each of the following sets of companies (each set consists of the company in the left hand column and the corresponding company in the right hand column, e.g., IBM and Dell Computers), please select the sponsor advertisement you can remember having seen on the boards surrounding the ice surface by placing a check (✓) in the appropriate box (select only one company per set).

Please try not to guess. If you are completely unsure which company is the sponsor, please leave it blank. If you have any questions please raise your hand and the investigator will assist you.

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<td>Canada Post</td>
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7. Siemens  □  Manulife Financial  □

8. Esso  □  Petro-Canada  □

9. NHL.com  □  Mapleleafs.com  □

10. Destina.ca  □  itravel2000.com  □

11. American Airlines  □  Air Canada  □

12. TD Waterhouse  □  CIBC  □

13. Dynamic  □  C.I. Mutual Funds  □

14. Sprint Canada  □  Bell  □

15. Coors Light  □  Labatt Blue Light  □
16. Sony ☐ Hitachi ☐

17. Ernst & Young ☐ Accenture ☐

18. Toronto Sun ☐ Toronto Star ☐

19. Casino Niagara ☐ Casino Rama ☐

20. Lotto Super 7 ☐ Pro Line ☐

Once you have completed the survey please place it in the envelope, seal it, and return it to the researcher.
Appendix N: Public Address Announcements (Football Game)
GAME THREE- FOOTBALL ALUMNI / AUTOGRAPH DAY
VS. LAURIER

1:00 pm - Music Starts, Gates Open
1:50 pm - PRE-GAME ANNOUNCEMENTS

Game Sponsors: McGinnis Front Row.
Fans, Welcome to the 2003 Ray Owens Memorial Football Game. Today the Waterloo Warriors play Wilfred Laurier Golden Hawks. Today’s Game sponsor is Mc Ginnis Front Row.

Programs:
Fans make sure your pick up a copy’s of today’s program for a chance to win tickets to this years Vanier Cup on November 22 at Skydome. Programs are available for $2 and can be purchases at the Warrior Booth underneath the stands. You can also purchase your Warrior tattoos for only a dollar.

Mc Ginnis:
Meet at McGinnis Front Row before and after every game. A different special everyday of the week, 160 University Ave at Phillip. A proud sponsor of Waterloo Football for over 10 years.

Football Autograph Day:
Kids' and fans be sure to stay after the game today to get your Free Warrior Autograph Poster and get the autographs from your own favourite Waterloo Warriors.

Community:
UW Athletics would like to give a warm welcome to the myte Thunderbirds Football team.

General Sponsors:
Warrior Football would like to thank our sponsors for the season including Domino’s Pizza, Pepsi, McGinnis Front Row, Pepsi, The Record, Wilson Athletics, Descartes, M & T Printing, The Imprint, Gatorade, UW Shop and Campus Recreation.
Merchandise:
Show your Warrior pride by wearing Waterloo gear. You can purchase Waterloo Warrior apparel at the Varsity Shop booth under the stands.

Opening Ceremonies:
1:50pm Team Introductions- Laurier Golden Hawks /Warriors
1:55pm National Anthem- O Canada: Warrior Band (Back-up: CD)
2:00pm Game Starts

1ST QUARTER
Programs:
Fans make sure your pick up a copy’s of today’s program for a chance to win tickets to this years Vanier Cup on November 22 at Skydome. Programs are available for $2 and can be purchases at the Warrior Booth underneath the stands. You can also purchase your Warrior tattoos for only a dollar.

McGinnis:
Wondering where to take the kids after the Game? It’s Kids night every night at McGinnis Frontrow. Special Kids menu, TV’s in every booth, free kids’ sundae cart and more! McGinnis is located at 160 University Ave at Phillip St.

Community:
UW Athletics would like to give a warm welcome to the myte Thunderbirds Football team.

Football Autograph Day:
Kids’ and Fans be sure to stay after the game today to get your Free Warrior Autograph Poster and get the autographs from your own favourite Waterloo Warriors

Team-Up:
If we have any teachers in attendance, we encourage you to take part in the TEAM-UP school outreach program. With this program UW Varsity Athletes visit your school and speak to your class or team. Pick up a registration form under the stands. For more information contact the UW Athletics Department or visit our website at www.athletics.uwaterloo.ca.
Wilson:
Wilson Sports Equipment proudly supports Ontario University Athletics and it’s over 9000 student athletes. Wilson, the Official Football of the OUA.

University of Waterloo Athletics Corporate Partners:
University of Waterloo Athletics would like to thank the following major corporate partners for their continuing of university athletics.

- Descartes Systems
- Gatorade
- Dominos Pizza
- M& T Printing group
- The Record
- Mc Donald’s Restaurant
- Saxon Athletics
- And Pepsi

Halftime:
Fans, be sure to stay around for half time for the McGinnis Twisted frozen t-shirt contest and the McGinnis T-shirt Sling.

2ND QUARTER:
Kids’ Club:
If you are one of our young Warrior fans who is 12 or under, and loves the Waterloo Warriors. You should become part of the Warrior Kids’ Club. As a member you will receive Junior Warrior Kids’ Club Newsletters, have a chance to win cool prizes in the Kids’ Club specials and meet other Kids’ Club fans. The Club is absolutely FREE; Registration forms are available at the Kids’ Club booth under the stands.

Survey:
Ladies and Gentleman, when you leave University Stadium today, you are invited to participate in a Masters thesis study being conducted by a graduate student in partnership with the University of Waterloos athletic department. Participation in the study is completely voluntary and should require no more than about five minutes of your time. In order to encourage your participation in this research, the University of Waterloo's athletic department will be giving away a free pair of tickets to a future Warriors home game. Research assistants will be located at the exits as you leave the
stadium, if you wish, please take a few moments and participate in the survey. Your responses are important to us.

Merchandise:
Show your Warrior pride by wearing Waterloo gear. You can purchase Waterloo Warrior apparel at the Varsity Shop booth under the stands.

Football Autograph Day:
Kids’ be sure to stay after the game today to get your Free Warrior Autograph Poster and get the autographs from your own favourite Waterloo Warriors

Half- time:
Fans, be sure to stay around at half time for the McGinnis Twisted frozen t-shirt contest and the McGinnis T-Shirt Sling.

Programs:
Fans make sure your pick up a copy’s of today’s program for a chance to win tickets to this years Vanier Cup on November 22 at Skydome. If page #1 of your program is signed by our #2, DJ Karimwambo, please go to the Warrior Merchandise Table to contact your prize.

Team-Up:
If we have any teachers in attendance, we encourage you to take part in the TEAM-UP school outreach program. With this program UW Varsity Athletes visit your school and speak to your class or team. Pick up a registration form under the stands. For more information contact the UW Athletics Department or visit our website at www.athletics.uwaterloo.ca. For more information on this great program for youth and be sure to book early as this program is very popular.

HALFTIME:
As soon as the players clear the tunnel. START OF HALF TIME.

Fans, if you please direct your attention to your field for your Half time presentation today.
University of Waterloo Athletics Corporate Partners:
University of Waterloo Athletics would like to thank the following major corporate partners for their continuing support of university athletics.

- Descartes Systems
- Pepsi
- Dominos Pizza
- M& T Printing Group
- The Record
- Saxon Athletics
- Gatorade
- And McDonald's Restaurant

U of W Player of the Week.
The University of Waterloo Athletics Department will be selecting an "Athlete of the Week". This year the U of W Athlete of the week is sponsored by the Imprint, Saxon and Domino's pizza. Watch for the UW Athlete of the Week in the Imprint.

Survey:
Ladies and Gentleman, when you leave University Stadium today, you are invited to participate in a Masters thesis study being conducted by a graduate student in partnership with the University of Waterloo's athletic department. Participation in the study is completely voluntary and should require no more than about five minutes of your time. In order to encourage your participation in this research, the University of Waterloo's athletic department will be giving away a free pair of tickets to a future Warriors home game. Research assistants will be located at the exits as you leave the stadium, if you wish, please take a few moments and participate in the survey. Your responses are important to us.

Football Autograph Day:
Kids’ be sure to stay after the game today to get your Free Warrior Autograph Poster and get the autographs from your own favourite Waterloo Warriors.

Next Game:
The next home game for your Waterloo Warriors is Saturday October 11 at 7:00 pm. The Waterloo Warriors will be playing the Guelph Gryphons.
Merchandise:
Check out the Varsity Shop booth under the stands for Waterloo Warrior apparel.

McGinnis:
Calling all Students! Hungry, but on a tight budget? McGinnis Frontrow has awesome food specials Monday thru Wednesday. Come enjoy our cheap wing night, half price appetizers, wacky menu and more! Drop by McGinnis after the game...McGinnis is in walking distance from the stadium in the University Shops Plaza.

Program:
Fans make sure you pick up a copy a copy of today’s program for a chance to win tickets to this year’s Vanier Cup on November 22 at Skydome. If page #1 of your program is signed by our #2 DJ Karimwambo, please go to the Warrior Merchandise Table to contact your prize.

4th Quarter:
Wilson:
Wilson Sports Equipment proudly supports Ontario University Athletics and it’s over 9000 student athletes. Wilson, the Official Football of the OUA.

Football Autograph Day:
Kids be sure to stay after the game today to get your Free Warrior Autograph Poster and get the autographs from your own favourite Waterloo Warriors.

Survey:
Ladies and Gentleman, when you leave University Stadium today, you are invited to participate in a Masters Thesis study being conducted by a graduate student in partnership with the University of Waterloo’s athletic department. Participation in this study is completely voluntary and should require no more than about five minutes of your time. In order to encourage your participation in this research, the University of Waterloo’s athletic department will be giving away a free pair of tickets to a future Warriors home game as well as coupons for two local restaurants. Research assistants will be located at the exits as you leave the stadium, if you wish, please take a few moments and participate in the survey. Your responses are important to us.
U of W Player of the Week.
The University of Waterloo Athletics Department will be selecting an “Athlete of the Week”. This year the U of W Athlete of the week is sponsored by the Imprint, Saxon and Domino’s pizza. Watch for the UW Athlete of the Week, in the Imprint.

Ray Owens:
Fans, a reminder that immediately following the game, well be making a special presentation on the field which has become an annual tradition with the Waterloo and Laurier Football game honouring the memory of the late Ray Owens. Please remain in the stands for a few moments when the game has concluded. Thank you.

Next Game:
The next home game for your Waterloo Warriors is Saturday October 11th at 7:00 pm. The Waterloo Warriors will be playing the University of Guelph Gryphons.

McGinnis Player of the Game (3 Minute Mark)
Fans, at each Warrior home game, we’ll be selecting a Warrior Player of the Game sponsored by McGinnis Front Row Restaurant. Today, we are pleased to announce that Waterloo Warrior __________________________ has been selected as McGinnis Front Row Warrior player of the Game. Drop by McGinnis after the game... Mc Ginnis is in walking distance from the stadium in the University Shops Plaza.

POST GAME:

Could we please ask both teams to line up on the respective 45 yard lines for our presentation!
Ladies and Gentlemen, please direct your attention to center field where we will present the Ray Owens Memorial Player of the Game Awards. We would like to welcome Carol Owens, representing the Owens family and University of Waterloo’s Director of Athletics Judy McCrae.

This Sixteenth annual award is presented in the memory of the late Ray Owens, who shared a unique relationship with both universities. Ray was an
Omsbudperson at the University of Waterloo, a graduate student at Laurier, an organizer of WLU's graduate students' association and an assistant football coach with the Hawks.

Ladies and Gentlemen the player of the game for Wilfred Laurier Golden Hawks is ______________________.

And the player of the game for the Waterloo Warrior is ______________________.

A cash donation in the name of today's award winners will be made to the charity of their choice. Congratulations to both players for a great game today and the 2003 Ray Owens Memorial winners.

Next Game:
Come out on Saturday October 11th, to see the Waterloo Warriors battle the University of Guelph Gryphons. The game starts at 7 pm.
Thank you for supporting your Waterloo Warriors and have a safe drive home.
Enjoy the rest of your afternoon.

MUSIC
Appendix O: Public Address Announcements (Basketball Game)
Announcements for All Games:

Please Read at all Games:

FIRST HALF:
General Sponsors
Warrior Basketball would like to thank our sponsors The Record, Federation of Students, Alumni Development, Imprint, The Chronicle, Warrior Weekend, Dominos Pizza, Wilson and Saxon Athletics.

DURING HALF TIME:
Survey:
Ladies and Gentleman, when you leave the stadium tonight you are invited to participate in a Masters Thesis study being conducted by a graduate student in partnership with the University of Waterloo athletic department. Participation in this study is completely voluntary and should require no more than about five minutes of your time. In order to encourage your participation in this research, the University of Waterloo Athletic department will be giving away a free pair of tickets to a future Warriors home game as well as gift certificates for two local restaurants. Research assistants will be located at the Red North and Blue North exits as you leave the gym. If you wish, please take a few moments and participate in the survey. Your responses are important to us.
SECOND HALF:
University of Waterloo Athletics Corporate Partners:
University of Waterloo Athletics would like to thank the following major corporate partners for their continuing of university athletics.

⇒ Descartes Systems
⇒ Gatorade
⇒ Dominos Pizza
⇒ M& T Printing group
⇒ The Record
⇒ Mc Donald’s Restaurant
⇒ Saxon Athletics
⇒ And Pepsi
Appendix P: Game Day Program (Football Game)
game day

Welcome
UW Football Alumni

WILFRID LAURIER
GOLDEN HAWKS
(3-0)

VS

WATERLOO
WARRIORS
(1-2)

ATHLETICS.UWATERLOO.CA
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<td>Brown</td>
<td>LB</td>
<td>6’0”</td>
<td>201</td>
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Official Supplier of Warrior Uniforms
and leading supplier of Quality Football Jerseys and Pants
to Canadian University and High School Teams

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Authorized Saxon Dealer,
Please Call:
1-866-879-8766

Official Supplier of Warrior Uniforms
GET IT ON
www.saxonathletic.com

224
# NAME | POS. | HT. | WT. | YEAR
---|---|---|---|---
1 | Jeri Wright | Wide Receiver | 5'11 | 195 | 2
3 | Andrew Agro | Slot Back | 5'10 | 170 | 3
4 | Mike Maurice | Wide Receiver | 6'5 | 210 | 4
7 | Ryan Pynn | Quarterback | 5'11 | 175 | 2
8 | Lee Crad | Linebacker | 5'10 | 195 | 2
9 | Robbie Kennett | Quarterback | 5'10 | 186 | 1
10 | Dave Wierch | Defensive Back | 5'6 | 185 | 2
11 | David Agro | Safety | 5'11 | 177 | 5
12 | Blair Ryan | Defensive Back | 5'9 | 180 | 2
15 | Will Northcutt | Wide Receiver | 6'5 | 208 | 2
16 | Ian Logan | Defensive Back | 5'9 | 185 | 3
17 | Jamie Partington | Quarterback | 6'3" | 200 | 2
18 | Brian David | Kicker/Punter | 6'0" | 190 | 3
19 | Nat Both | Defensive Back | 6'0" | 175 | 2
20 | Bryan Hickey | Running Back | 6'2" | 209 | 3
21 | Jon Cumes | Wide Receiver | 5'9 | 180 | 1
22 | Steve Surya | Defensive Back | 6'0" | 165 | 2
25 | Steve Fiske | Wide Receiver | 6'1 | 190 | 4
26 | Jeff Sauzon | Defensive Back | 5'10 | 190 | 3
28 | Geedan Ken | Slotback | 5'8 | 175 | 4
30 | GJ Toste | Fullback | 5'11 | 230 | 4
31 | Nick Cameron | Running Back | 5'10 | 210 | 2
34 | Derek Medler | Running Back | 5'9 | 208 | 2
34 | Brandon Kela | Fullback | 6'4 | 230 | 2
40 | Lee Maggiano | Linebacker | 6'1 | 205 | 4
41 | Anthony Maggiano | Linebacker | 6'1 | 200 | 1
41 | Dave Monroya | Linebacker | 6'1 | 220 | 1
42 | Yanke Carter | Defensive Back | 6'1 | 185 | 1
43 | Elliot Forwell | Linebacker | 6'2 | 225 | 2
45 | Adrian Howser | Defensive Back | 5'11 | 195 | 1
50 | Kevin MacNeill | Linebacker | 6'2 | 225 | 1
52 | Jason Thomson | Linebacker | 6'1 | 218 | 4
53 | Jon Matts | Offensive Lineman | 6'8 | 285 | 2
54 | Brian Sted | Linebacker | 5'11 | 228 | 2
55 | Josh Alexander | Defensive Line | 6'4 | 316 | 5
56 | Jesse Alexander | Linebacker | 6'0 | 233 | 2
57 | Mitch McInnis | Offensive Line | 6'4 | 215 | 3
58 | Chris Scherer | Offensive Line | 6'3 | 295 | 4
59 | Tony Bentney | Defensive Lineman | 6'2 | 245 | 5
60 | Bill Giet | Offensive Line | 6'7 | 300 | 1
61 | Steve Skalka | Offensive Lineman | 6'1 | 290 | 5
65 | Kyle Watson | Offensive Lineman | 6'3 | 300 | 1

# NAME | POS. | HT. | WT. | YEAR
---|---|---|---|---
66 | Jeff Hicks | Offensive Line | 6'3 | 290 | 4
67 | Ryan Jeffrey | Offensive Tackle | 6'4 | 275 | 4
68 | Owen Thompson | Offensive Line | 6'3 | 225 | 4
70 | Ryan McCreiff | Linebacker | 6'3 | 240 | 1
71 | Adam Schneider | Slot Back | 6'3 | 190 | 1
80 | Josh Martin | Running Back | 5'11 | 180 | 3
88 | Andrew Backman | Receiver | 210" | 170 | 1
90 | Scott Brown | Defensive Line | 6'6 | 230 | 2
91 | Justin Shatral | Defensive Line | 6'7" | 250 | 4
95 | Kyle Armour | Defensive Line | 6'1 | 275 | 2
130 | Mark Betsch | Linebacker | 6'2 | 225 | 1
131 | Stephen Brown | Offensive Lineman | 6'0" | 235 | 1
133 | Ian Cullen | Wide Receiver | 6'1 | 165 | 1
190 | Chad Davis | Defensive Back | 6'0" | 175 | 2
191 | Andrew Dietrich | Offensive Line | 6'2 | 260 | 1
192 | Tyler Feisher | Offensive Line | 6'2 | 230 | 1
193 | Todd Galloway | Wide Receiver | 6'1 | 195 | 3
194 | Peter Gillard | Defensive Back | 5'9 | 190 | 2
195 | Mike Gilmour | Defensive Back | 5'11 | 180 | 1
196 | Josh Goldberg | Running Back | 6'2 | 243 | 1
197 | Don Goodwin | Defensive Back | 6'10 | 170 | 1
198 | Rob Green | Slot Back | 6'0 | 195 | 1
199 | Will Harris | Slot Back | 6'0 | 180 | 2
201 | Brent Hickey | Defensive Back | 5'10" | 175 | 1
202 | Matt Harworth | Quarterback | 6'0" | 178 | 1
203 | Nathan Jarrett | Running Back | 5'10 | 180 | 1
204 | Scott Jorgensen | Slot Back | 5'11 | 170 | 1
205 | Dylan Koch | Defensive Back | 5'10 | 170 | 1
206 | Joe Lasaks | Defensive Line | 6'1 | 225 | 1
207 | Ben Lawson | Defensive Lineman | 6'0 | 225 | 2
208 | Peter Maddocks | Quarterback | 6'1 | 180 | 1
209 | Andrew McLean | Slot Back | 5'11 | 168 | 5
210 | Chris Murray | Offensive Line | 6'2 | 220 | 1
211 | Shawn Parker | Fullback | 6'0 | 203 | 1
212 | Reid Parker | Running Back | 5'7 | 185 | 1
213 | Kyle Phillips | Defensive Back | 6'2 | 180 | 1
214 | Justin Phillips | Defensive Back | 6'2 | 205 | 1
215 | Andrew Sacharow | Defensive Back | 5'11 | 185 | 1
216 | Eric Solon | Offensive Line | 6'0 | 260 | 1
217 | Reid Smart | Defensive Back | 6'10 | 185 | 1
218 | Craig White | Defensive Lineman | 6'1 | 225 | 2

WILFRID LAURIER GOLDEN HAWKS

WARLOR AUTOGHAP DAY

All the Warriors will be on the field after the game to sign autographs.

NEXT WARRIOR HOME GAME
Saturday, October 11, 2003
2:00 PM, University Stadium

225
Warrior Game Recap - Waterloo 24 at Ottawa 29

(by Anthony Moroney)

On a warm and overcast September afternoon in Ottawa, the Gee Gees tried their best to give a victory to the Warriors, but Waterloo squandered their opportunities and left Frank Clair Stadium with a 29-24 loss, dropping their record to 1-2. The Warriors defense stopped the Ottawa running game and knocked David Azi and quarterbacks Mike Crabtree and John Crupi out of the game, but they still could not stop the Gee Gees passing attack, surrendering 380 yards in the air.

Up 18-12 at halftime, it was time for the offence to put some points on the board and solidify a victory against a wounded Gee Gees team. No David Azi and the backup quarterback in, it was a perfect opportunity to take advantage. Unfortunately, the Warrior offense struggled for only 4 points in the second half.

Ian Forde had his usual electric performance with 5 receptions for 96 yards and a touchdown, and 9 kick returns for 107 yards. But midway through the 4th quarter, with Waterloo trailing 22-21, the normally sure handed Forde allowed a punt to bounce off his pads and right into the hands of an Ottawa defender. The next play was a 30 yard touchdown toss, giving Ottawa a 29-21 lead, which was good enough to win the game for the Gee Gees.

Kicker Matt Armstrong kicked a 52 yard punt. But he only hit 2 of 6 field goals.

The Warriors played a good game on Saturday, but not a complete game. Football boils down to execution and composition, and both of those were absent during the 4th quarter in Warriors heartbreaking loss to Ottawa.

The Warriors look to put a complete game together this weekend as Waterloo hosts Laurier in the annual Battle of Waterloo. Game time is scheduled for 2pm on Saturday, September 20 at University Stadium.
Appendix Q: Game Day Program (Basketball Game)
WATERLOO WARRIORS (M)

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BROCK BADGERS (M)

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WARRIORS NEXT HOME GAME
SATURDAY, NOVEMBER 29, 2003, (W) 12:00 PM, (M) 2:00 PM
UNIVERSITY OF WATERLOO PHYSICAL ACTIVITIES COMPLEX

ATHLETICS.UWATERLOO.CA