The Measurement of Sport Fan Exploratory Curiosity

Seong Hee Park  
Hankuk University of Foreign Studies

Daniel F. Mahony  
Kent State University

T. Christopher Greenwell  
University of Louisville

Curiosity has been regarded as a key intrinsic motivational drive for facilitating human exploratory behaviors in many domains, such as psychology, education, and sport. However, no attempt has been made to measure curiosity in a sport context. The purpose of this study was to develop an effective and efficient sport fan exploratory curiosity scale (SFECS). A total of 657 participants were recruited and completed surveys. Various statistical analyses were used to examine the reliability and validity of the scale. The analyses resulted in a reliable and valid scale with three factors (Excitement, New Sport Events, Sport Facility) and a total of 10-items. The SFECS was useful in predicting various sport fan behaviors. Future research should be done in an effort to further refine the scale and to examine the role of curiosity in various practical areas in a sport context.

The sport industry has become increasingly meaningful in our society (Wann, Melnick, Russel, & Pease, 2001), so understanding sport fans has become more important. Sport fans are defined as individuals who have an interest in and follow a sport, player, and/or team (Wann et al., 2001). In the recent years, sport fans have had an increasing impact on the sport industry because they are no longer just passive consumers but are becoming “prosumers” (See Toffler & Toffler, 2006). Fans are becoming more actively engaged by developing new sport activities, including new sports, like those featured in the X-Games, and fantasy sport teams. Therefore, it is clear that the role of fan is crucial in the current sport industry and research on sport fan behaviors is critical to better develop sport marketing strategies.

Despite the fact a substantial amount of research exists on the social, individual, and psychological factors influencing various fan behaviors related to sports, sport
teams, and players (e.g., Funk & James, 2001; Funk, Mahony, & Ridinger, 2002; Kahle, Kambara, & Rose, 1996; Mahony, Madrigal, & Howard, 1999; Milne & McDonald, 1999; Sutton, McDonald, Milne, & Cimperman, 1997; Trail & James, 2001; Wann, 1995), most of the literature focuses on highly identified or loyal sport fans (Park, Andrew, & Mahony, 2008). Therefore, the literature has not thoroughly examined how fans shift from being a nonfan or casual fan to a loyal sport fan. Because the current sport marketplace is highly competitive (Mahony & Howard, 2001), sport marketers need to ensure existing sport fans become loyal sport fans and to create new sport fans to expand fan base. Therefore, both researchers and practitioners need to understand why consumers are initially attracted to sports (Park et al., 2008). Curiosity is one factor that has potential to explain cognitive, sensory, psychological, and situational effects on sport fan behaviors (Park, 2007; Park et al., 2008).

Curiosity is defined as “a desire to acquire new knowledge and new sensory experience that motivates exploratory behavior” (Litman & Spielberger, 2003, p. 75). Voss and Keller (1983) also noted that “curiosity is a motivational prerequisite for exploratory behavior” (p. 17). In fact, prior studies have found that highly curious individuals are more motivated to explore new information within cognitive, perceptual, or sensational environments to satisfy their curiosity (Kashdan, Rose, & Fincham, 2004; Park, 2007). Therefore, curiosity has been regarded as one of the critical motivators of human exploratory behaviors and has been investigated in many domains, such as the educational, occupational, and recreational sectors (Berlyne, 1954, 1960, 1971; Carlin, 1999; Collins, 2000; Day, 1982; Loewenstein, 1994; Reio, Petrosko, Wiswell, & Thongsukmag, 2006).

Several arguments can be made to support the inclusion of curiosity in sport consumer behavior research. First, most sport fan behaviors are naturally exploratory. Sport fans engage in a number of exploratory behaviors including attending new sport events or events at new facilities, watching events with different people, watching new sports and new players, and surfing the Internet. In fact, some researchers have argued that people with high curiosity may naturally have a stronger level of motivation to explore and consume sports than those with low curiosity. For example, Park and Kim (2008) and Park et al. (2008) found those with high curiosity are more likely to engage in various sport fan behaviors, such as gathering new information about a sport, spending money and time to experience sport, or watching a novel sport. Second, the uncertainty of sport may provoke sport fans’ curiosity (Park, 2007). For example, an individual does not know the result of a sport event before it begins. This uncertainty would keep people curious. In addition, the differences among sports may also elicit sport fans’ curiosity. Each sport has different rules and each game has different players and strategies. Consequently, the inherent characteristics of sport are closely related to curiosity. Therefore curiosity may be a potential motivator and trigger of various sport fan behaviors, explaining why sport fans may be initially attracted to, and become interested in, sports, sport teams, and players. However, only a few studies have investigated the impact of curiosity on various sport fan behaviors (see Park, Mahony, & Greenwell, 2009; Park et al., 2008), and those studies just partially investigated some of the relationships between curiosity and sport fan behaviors.

To better apply the concept of curiosity to the study of sport fans, a better method of measuring sport fan curiosity is essential. Churchill (1979) and Netemeyer,
Bearden, and Sharma (2003) argued that developing proper measurement scale is a crucial step in establishing and undergirding a strong body of knowledge for any area of scientific research. Considering research on curiosity in a sport context is in its embryonic stage, developing an effective, valid, and reliable measurement scale is needed to help both researchers and practitioners better understand sport fan behaviors and further extend curiosity research in a sport context. Therefore, the purpose of this study was to develop a reliable and valid measurement scale for sport fan curiosity to better examine the curiosity construct in a sport setting, as well as the role of sport fan curiosity in impacting various sport fan behaviors.

Curiosity

Berlyne (1960, 1971), one of the most distinguished contributors to the curiosity research, believed curiosity is a strong motivational drive that leads individuals to behave and explore various environments for better understanding. One important aspect of Berlyne’s (1960) research on curiosity was his identification of two dimensions of curiosity based on the types of stimulation and the way a person explore the stimulation: (a) perceptual and epistemic curiosity and (b) specific and diversive curiosity. Understanding these dimensions has been the major focus for a large number of curiosity-related studies.

Perceptual curiosity is the state of high arousal “evoked by uncertain or ambiguous patterns of sensory stimulation (e.g., sights, sounds)” (Collins, Litman, & Spielberger, 2004, p. 1128). Thus, people with high levels of perceptual curiosity would be motivated by various sensory stimulation (e.g., sights or sounds; Berlyne, 1966). For example, individuals may feel perceptual discomfort or uncertainty when they are exposed to “novel, surprising, highly complex, or ambiguous stimulus patterns” (Berlyne, 1966, p. 30), and be more likely to be motivated to seek the source of stimulus. Berlyne (1960) defined epistemic curiosity as “the brand of curiosity that motivates the quest for knowledge and is relieved when knowledge is procured” (p. 274). Collins and his colleagues (2004) also argued that epistemic curiosity is the state evoked by “complex ideas or conceptual ambiguities (e.g., scientific theories, intellectual conundrums)” (p. 1127). People aroused by epistemic curiosity have the “desire to gain knowledge” (Rossing & Long, 1981, p. 25). Epistemic curiosity plays a key role in learning; those having high epistemic curiosity would be more likely to try to learn the characteristics of a novel object by asking questions about or exploring the object (Carlin, 1999).

The second dimension of Berlyne’s (1960) concept of curiosity is specific and diversive exploration. Berlyne (1960) defined specific curiosity “as the desire for actively seeking depth in one’s knowledge and experience with a particular stimulus or activity” (Kashdan et al., 2004, p. 291) to close the information gap between what individuals know and what they want to know (Cyr, 1996). Berlyne (1960) defined diversive curiosity as actively seeking out varied sources of stimulation as a result of boredom. Thus, it leads individuals to seek new experiences or contact with new stimuli (Kashdan et al., 2004).

In sum, Berlyne (1949, 1950, 1954, 1960, 1966) was one of the first researchers to argue that curiosity has multiple dimensions. However, his studies were limited in that he did not regard curiosity as a meaningful personality trait (Litman & Spielberger, 2003). However, other researchers have examined how curiosity varies
according to individual differences and its impact on human behavior. They focused both on the individual's typical behavior (i.e., trait curiosity; Day, 1971; Spielberger, 1975; Spielberger, Ritterband, Sydeman, Reheiser, & Unger, 1995) and the situation's general effect on behavior (i.e., state curiosity; Cyr, 1996; Loewenstein, 1994. Thus, it is believed that research on curiosity provides some clues of how individuals become naturally curious across a variety of situations and how certain situations may impact curiosity even for those who are not naturally more curious.

**Exploratory Characteristic of Curiosity and Its Measurement**

Curiosity has been regarded as a strong motivational drive in psychology. However, Reio et al. (2006) additionally argued that curiosity would be working as a major motivational drive outside psychology as well. For example, they argued that curiosity is one of the meaningful factors facilitating individuals’ exploratory behaviors over the lifespan in many fields such as education, sociology, and even physical activity. In other words, some individuals are more likely to exhibit exploratory curiosity as a trait that goes across a number of states. In addition, as addressed previously, a number of researchers have defined curiosity as a “desire for acquiring new knowledge and new sensory experience that motivates exploratory behavior” (Litman & Spielberger, 2003, p. 75). Therefore, the characteristic of curiosity would be intuitively related to exploratory behaviors, and further study on curiosity needs to be done based on the notion that curiosity is exploratory in nature.

As discussed previously, sport and curiosity share common characteristics because both influence sport fans exploratory behaviors; a sport context is the place in which individual may feel various perceptual, informational, or novel stimuli that influence their exploratory behaviors (Park & Moorman, 2006). Similarly, previous curiosity studies in a sport context have shown that sport fan exploratory behaviors are influenced by curiosity (see Park et al., 2008; Park et al., 2009). Given that curiosity and a sport context simultaneously influence exploratory behaviors, it would be effective for practitioners to stimulate sport fan exploratory behaviors (i.e., new consumption of sport or spectating new sports) based on what researchers have found that curiosity would be one of the meaningful motivators in inducing sport fan behaviors. Therefore, development of reliable and valid measures for sport fan curiosity is a prerequisite process to better understand curiosity and apply its concept in a sport context.

Determining how to measure curiosity has been a major focus within the curiosity literature. Researchers have found that the construct of curiosity is conceptually and distinctly separated from, but correlated with, other constructs (Byrne, 2001; Collins, 1996; Collins et al., 2004; Day, 1969, 1971, 1982; Kashdan et al., 2004; Litman & Spielberger, 2003; Naylor, 1981; Reio & Callahan 2004; Reio et al., 2006). In addition, Litman and Spielberger (2003) argued that the measurement scales for curiosity “assessed substantially related, but meaningfully different [concepts]” (p. 83). In fact, previous studies have found that curiosity is a multifaceted structure that has common underlying latent constructs (e.g., Ailney, 1987; Byman, 1993, 2001; Collins, 2000; Loewenstein, 1994, Reio, 1997; Reio et al., 2006; Spielberger & Starr, 1994).

However, measures used in previous study in psychology to assess curiosity may not be appropriate for measuring sport fan curiosity. Therefore, new measures are needed for a number of reasons. First, sport fans are different than consumers of other products. As discussed previously, sport fans are both consumers
and prosumers. Second, sport situations are different. Various sport consumption behaviors such as watching and supporting a team on television or in a stadium or wearing a jersey or jacket to cheer for a certain team are unusual examples of consumer behavior. Curiosity has been traditionally regarded “as a state” (Boyle, 1983, p. 377), and the concept of state is meaningful in sport in that sport situations are different from many other settings in which curiosity measures have been developed and used (Park, 2007; Weinberg & Gould, 1999). Third, because sport consumption is often different than other types of consumption, the wording of many of the items in existing scales would not be appropriate when measuring curiosity among sport fans.

Some researchers argued that there has been a major line of curiosity measurement based on two types of curiosity—diversive (exploratory) and specific curiosity (Reio, 1997; Reio et al., 2006), both of which may influence sport fan behavior. For example, ddiversive (exploratory) curiosity would lead sport fans to become interested in exploring new sport facility, flipping through sport network channels to watch a novel sport, or seeking sensational and novel stimulation in a sport context (see Park et al., 2008). In contrast, specific curiosity would lead sport fans to carefully examine particular stimulus or information such as searching the Internet for more information on a favorite sport, team, player, or event (Park, 2007).

Therefore, the authors believed that sport fan curiosity may consist of two different constructs—exploratory curiosity and specific curiosity. Because a number of studies have shown that curiosity consists of conceptually correlated, but clearly separate constructs (Byman, 2001; Collins et al., 2004; Kashdan et al., 2004; Litman & Spielberger, 2003; Naylor, 1981; Reio & Callahan, 2004; Reio et al., 2006), this approach to the understanding of sport fan curiosity based on these two constructs would seem to explain most of the possible sport fan behaviors related to curiosity. Even though there are two possible constructs of sport fan curiosity, the authors, in this study, focused first on the measurement of sport fan exploratory curiosity based on the following reasons. First, the previous works initially found that curiosity has significant impact on, and is clearly related to, fans’ interest in exploring novel sports (Park et al., 2008; Park et al., 2009). These prior studies were helpful in developing and testing this initial scale. Second, it would be also intuitive that exploratory (i.e., ddiversive) curiosity is initially aroused by various stimuli or novel objects first that leads people to focus on the stimuli or objects more specifically as a follow-up (see Reio, 1997). Therefore, sport fan exploratory curiosity was chosen as the first scale to develop.

Scale Development

This study developed the Sport Fan Exploratory Curiosity Scale (SFECs) in three studies largely based on Churchill’s (1979) eight stages of scale development. In Study 1, the first four stages for scale development were included. Specifically, the domain of the construct of exploratory curiosity was defined using the literature in stage 1. In stage 2, sample items reflecting the construct were developed. In stage 3, data (Sample 1) were collected (N = 417) from three large universities (one university in the Midwest; two university in the Southeast) via paper and Internet surveys. In stage 4, the reliability and validity of the items were tested using exploratory factor analyses. In Study 2, three additional stages were included. In stage 5, the
second set of data (Sample 2) were collected ($N = 250$) from the same three universities used for the first data collection. Because the authors aimed to precisely measure sport fan exploratory curiosity in this study, they attempted to survey participants who are already fans of sports. The Sport Fandom Questionnaire (SFQ; Wann, 2002), which is a reliable and valid measure including five items (e.g., Being a sport fan is very important to me), was administered on a 7-Likert type of scale to assess the participants’ level of fanship. In stage 6, various statistical analyses were performed to examine reliability and validity of the SFECs. In stage 7, the authors discussed how to develop norms and the representativeness of the SFECs. In Study 3, the authors examined the predictive validity of the SFECs, which is stage 8 of the scale development process. In this stage, the authors attempted to examine the role of sport fan exploratory curiosity in predicting participants’ both current (i.e., frequency of watching sport events on television) and future sport fan behaviors (i.e., intention to watch novel sports).

**Study 1**

**Stage One: Specify the Domains of the Construct.** As discussed previously, Study 1 consisted of four stages of scale development. The first stage of Churchill’s (1979) scale development model is to specify the domain of the construct. Even though the construct of sport fan exploratory curiosity is conceptually related to the various curiosity factors that arouse individuals’ various exploratory behaviors (i.e., Breadth of Curiosity: Ainley, 1987; Boredom: Berlyne, 1960; Exploration: Kashdan et al., 2004; Curiosity Gap (low arousal): Loewenstein, 1994; Trait Curiosity: Naylor, 1981; Novelty Experience Seeking (IS: Internal Sensation and ES: External Sensation): Pearson, 1970; Experience Seeking: Spielberger & Starr, 1994; Sensation Seeking (TAS: Thrill and Adventure Seeking and ES: Experience Seeking), Zuckerman, 1979), there has been no theory or previous study supporting and clarifying different domains of sport fan exploratory curiosity. In this stage, therefore, the authors attempted to define sport fan exploratory curiosity and operationalize this construct. For this study, sport fan exploratory curiosity is defined as seeking sensational and novel stimulation from sports, sport teams, or players that lead to engaging in various behaviors to explore new information about sport or related factors.

**Stage Two: Generating Items.** In the second stage, the authors generated items for sport fan exploratory curiosity. According to Churchill (1979), items for a new scale need to be either generated or modified from the literature (Netemeyer et al., 2003). Thus, to develop the Sport Fan Exploratory Curiosity Scale (SFECs), the authors first adapted items from existing scales related to the concept of curiosity, which were considered appropriate for measuring sport fans’ exploratory curiosity. The initial items included those from scales of thrill and adventures seeking and experience seeking (Zuckerman, 1979), internal sensation and external sensation (Pearson, 1970), and exploration (Kashdan et al., 2004). The authors then modified those items to fit sport fans and additionally generated more items based on discussions with experts.

Finally, ten items representing sport fans’ unique characteristics such as sport fans’ interaction with others, sports, sport teams, and players and their consumptive patterns in relation to media were also generated. These newly developed items seemed particularly important based on the following reasons. First, sport fans
strengthen their belongingness and solidity through affiliations with others (Dietz-Uhler, Harrick, End, & Jacquemotte, 2000; Giuliano, Popp, & Knight, 2000; Wann & Branscombe, 1993). Second, sport media (i.e., television, newspaper, Internet) has always been considered important because it has been frequently used to increase various sport fan behaviors (Park, 2008; Wann et al., 2001). Therefore, this concept needed to be reflected within the items (see Table 1). To determine the content validity of the items, three experts who had previously published numerous articles on sport fan behavior reviewed the items and assessed how clearly the items reflected the construct of sport fan exploratory curiosity and satisfied the purpose of this study.

Table 1  Initial Items for Sport Fan Exploratory Curiosity Scale

<table>
<thead>
<tr>
<th>Item</th>
<th>Pretest</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  I enjoy watching new sports that I have never seen before.</td>
<td>^</td>
</tr>
<tr>
<td>2  I enjoy watching exciting sports even if they are unconventional.</td>
<td>Z</td>
</tr>
<tr>
<td>3  I enjoy learning about people who risk their necks participating in dangerous sports.</td>
<td>^ (6 responses)</td>
</tr>
<tr>
<td>4  I enjoy taking off on a sports trip with friends without a clear preplanned route or timetable.</td>
<td>Z</td>
</tr>
<tr>
<td>5  I enjoy flipping through sport network channels when I feel bored.</td>
<td>A ** (1 response)</td>
</tr>
<tr>
<td>6  I enjoy exploring brand new sport stadiums or facilities.</td>
<td>A</td>
</tr>
<tr>
<td>7  I enjoy watching sensational sport events that fire up my emotions.</td>
<td>P</td>
</tr>
<tr>
<td>8  When I see a new sport facility on television, I want to go to it and explore it.</td>
<td>A *** with item 18</td>
</tr>
<tr>
<td>9  I enjoy watching a major sport event for the first time.</td>
<td>A</td>
</tr>
<tr>
<td>10 Watching new sport events with my friends is exciting.</td>
<td>A</td>
</tr>
<tr>
<td>11 I often imagine myself playing on a professional sports team.</td>
<td>A ** (1 response)</td>
</tr>
<tr>
<td>12 I enjoy being around “die-hard” sport fans to have a new experience.</td>
<td>A</td>
</tr>
<tr>
<td>13 I often look for new opportunities to watch sports.</td>
<td>K</td>
</tr>
<tr>
<td>14 I enjoy probing deeply into new sports or leagues.</td>
<td>K</td>
</tr>
<tr>
<td>15 I enjoy watching new and unfamiliar sports with friends.</td>
<td>L</td>
</tr>
<tr>
<td>16 I enjoy visiting a sport event I have never been to before more than one I have been to many times.</td>
<td>L</td>
</tr>
<tr>
<td>17 My curiosity is aroused when watching exciting new sport events.</td>
<td>A ** with item 8</td>
</tr>
<tr>
<td>18 When visiting a brand new sport facility, I want to explore it.</td>
<td>P ** with item 8</td>
</tr>
</tbody>
</table>

^ Developed by authors.
Z Modified from Zuckerman (1979).
K Modified from Kashdan et al. (2003).
L Modified from Litman & Spielberger (2003)
* Deleted after pilot test
* Lack of clarity or vagueness
** Inappropriateness
*** Redundancy
In the third and fourth stage, the authors collected data from Sample 1 (N = 417). Sample 1 consisted of ten participants for a field test and a sample group (N = 407) for an exploratory factor analysis. The authors purposely selected ten participants (five women and five men) from a sport management graduate class and asked them to review the items (i.e., understandability, redundancy, vagueness, appropriateness) and explain which ones they thought were inappropriate (cf. Riemer & Chelladurai, 1998). The authors fully explained to the participants the purpose of the study and why the items were generated. They reported that six items of the SFECS (e.g., items 3, 8, 11, 12, 14, 18) were considered redundant or conceptually inappropriate. For example, they reported that item 3 (e.g., I enjoy learning about people who risk their necks participating in dangerous sports) was not clear because of poor wording. After careful consideration, the authors partially agreed with the participants’ recommendation and deleted one item (item 3). The deletion of the item was supported by Netemeyer et al. (2003) in that a certain item can be deleted or modified when most of the participants had a similar opinion (see Table 1).

Given the items were newly generated or modified to fit the sport setting, the authors collected data from a large sample (N = 407) and employed an exploratory factor analysis (EFA) to identify the underlying factors of the SFECS (i.e., internal consistency of the items). The number of participants was considered appropriate for the analysis given the numbers of items in the scale (Tinsley & Tinsley, 1987). The participants were 36.9% females (N = 150) and 63.1% males (N = 257), ranged from ages 17–40 with a mean age of 21.15. The majority of the participants was Caucasian (N = 300, 73.7%). The authors used both paper (N = 300; usable responses: 269 (87%)) and Internet (N = 222; usable responses: 138 (62%)) surveys. The authors recruited the participants via the Internet from the same universities used for paper surveys which followed Dillman’s (2000) suggestions for Internet surveys. There were no significant differences in scores on the SFECS between the participants responding using the paper survey and those from the Internet survey. While there were some differences in the number of usable responses between paper and the Internet surveys, this discrepancy should not be a major concern. Those who completed the survey online were simply more likely to provide incomplete responses. This is consistent with findings in prior research in which those who respond to surveys online are more likely to stop somewhere in the middle of the survey or be affected by a number of factors such as computer skills (Dillman, 2000; Solomon, 2000). Ten participants who completed the Internet version of the survey were randomly selected by the researchers to receive $10 to increase response rate.

Churchill (1979) argued that the factor analysis is one of the appropriate analyses in this stage to establish meaningful factors underlying the construct, examine internal consistency of the items, and reduce a number of items down to shorter, manageable, and efficient variables (also see DeVellis, 2003; Netemeyer et al., 2003). Three criteria were used: Cronbach’s alpha (alpha ≥ .70), eigenvalues (greater than 1), and Cattell’s (1957) scree test (Nunnally & Bernstein, 1994). An exploratory factor analysis (EFA) was performed with the 17 remaining items using maximum likelihood method with an oblique rotation. The results indicated that three factors with eigenvalue greater than 1 emerged in the preliminary structure.
The scree plot test also supported a three-factor model. Then, based on two criteria (factor loading lower than .35 and cross loadings on more than two factors), the authors deleted one item (item 4: factor loading less than .35; Field, 2005; Kim, Atkinson, & Yang, 1999). Therefore, three factors (Factor 1: items 5, 7, 11, 12, 13, 14; Factor 2: items 1, 2, 9, 10, 15, 16, 17; Factor 3: items 6, 8, 18) were identified. The Cronbach’s alpha revealed strong internal consistency within each factor (alpha > .70). The factor loadings and Cronbach’s alpha for all initial 17 items are reported in Table 2.

To further assess reliability and internal consistency, the authors used interitem correlations (alpha ≥ .30; Robinson, Shaver, & Wrightsman, 1991) and item-total correlation (alpha ≥ .50; Hair, Anderson, Tatham, & Black, 1998) with the 16 purified items. The interitem correlations showed that all items, except one (item 16), demonstrated levels of reliability higher than the criteria (.30), ranging from .38 to .67. Item 16 was deleted from the pool due to the low correlation. The item-total correlations revealed appropriate item-total correlations higher than the criteria (.50), ranging from .53 to .75, for all items except for two (items 2, 7). Consequently, these two items were also dropped. Interitem and item-total correlations and Cronbach’s alpha are presented in Table 3.

Table 2  Exploratory Factor Analysis for the SFECS

<table>
<thead>
<tr>
<th>Item*</th>
<th>Factor Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Factor 1</td>
</tr>
<tr>
<td>SFEC5</td>
<td>.79</td>
</tr>
<tr>
<td>SFEC12</td>
<td>.68</td>
</tr>
<tr>
<td>SFEC13</td>
<td>.67</td>
</tr>
<tr>
<td>SFEC11</td>
<td>.54</td>
</tr>
<tr>
<td>SFEC14</td>
<td>.43</td>
</tr>
<tr>
<td>SFEC7</td>
<td>.42</td>
</tr>
<tr>
<td>SFEC15</td>
<td>-.08</td>
</tr>
<tr>
<td>SFEC17</td>
<td>-.06</td>
</tr>
<tr>
<td>SFEC1</td>
<td>.01</td>
</tr>
<tr>
<td>SFEC2</td>
<td>.11</td>
</tr>
<tr>
<td>SFEC10</td>
<td>.19</td>
</tr>
<tr>
<td>SFEC9</td>
<td>.24</td>
</tr>
<tr>
<td>SFEC16</td>
<td>-.04</td>
</tr>
<tr>
<td>SFEC4</td>
<td>.23</td>
</tr>
<tr>
<td>SFEC18</td>
<td>.06</td>
</tr>
<tr>
<td>SFEC8</td>
<td>.10</td>
</tr>
<tr>
<td>SFEC6</td>
<td>.19</td>
</tr>
<tr>
<td>Eigenvalue</td>
<td>6.65</td>
</tr>
<tr>
<td>% of Variance</td>
<td>39.10</td>
</tr>
<tr>
<td>Cronbach’s alpha</td>
<td>.83</td>
</tr>
</tbody>
</table>

Items loading on a specific factor are reported in bold.
* Listed in descending order of magnitude of the dominant loading.
In sum, three factors with 13 items (Factor 1: items 5, 11, 12, 13, 14; Factor 2: items 1, 9, 10, 15, 17; Factor 3: items 6, 8, 18) were identified in this stage. The researchers labeled these three factors as “Excitement” (Factor 1), “New Sport Events” (Factor 2), and “Sport Facility” (Factor 3) to represent the items in each factor “in a more general sense” (Short, Sullivan, & Feltz, 2005, p. 190).

**Study 2**

Study 2 consisted of three more stages from Churchill’s (1979) suggestions. The authors collected a second set of data (Sample 2, \( N = 250 \)) in stage 5. Respondents were also recruited from the same regional areas and target participants and paper surveys were used. In stage 6, the internal consistency of the factors was again examined with a different sample (Sample 2) to verify the underlying factors of the SFECS. In stage 7, norms were provided for future data collection using the SFECS.

**Stage Five: Second Data Collection (Sample 2).** In this stage, the second data collection was done to confirm the SFECS model through confirmatory factor analysis (CFA). Based on the suggestion of Hair et al. (1998), the sample size should be 200 or more for the CFA, so the authors administered the refined version of the SFECS questionnaire to a convenience sample of 300 students. After

---

### Table 3  Cronbach’s Alpha, Item-Total, and Item-Total Correlations of the SFECS

<table>
<thead>
<tr>
<th>Item*</th>
<th>Cronbach’s Alpha</th>
<th>Item-Total</th>
<th>Inter-Item</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Excitement</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SFEC5</td>
<td>.83</td>
<td>.66</td>
<td>.62</td>
</tr>
<tr>
<td>SFEC12</td>
<td>.65</td>
<td>.61</td>
<td></td>
</tr>
<tr>
<td>SFEC13</td>
<td>.72</td>
<td>.67</td>
<td></td>
</tr>
<tr>
<td>SFEC11</td>
<td>.65</td>
<td>.61</td>
<td></td>
</tr>
<tr>
<td>SFEC14</td>
<td>.52</td>
<td>.49</td>
<td></td>
</tr>
<tr>
<td>SFEC7</td>
<td>.49</td>
<td>.48</td>
<td></td>
</tr>
<tr>
<td><strong>New Sport Events</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SFEC15</td>
<td>.81</td>
<td>.64</td>
<td>.44</td>
</tr>
<tr>
<td>SFEC17</td>
<td>.67</td>
<td>.45</td>
<td></td>
</tr>
<tr>
<td>SFEC1</td>
<td>.53</td>
<td>.37</td>
<td></td>
</tr>
<tr>
<td>SFEC2</td>
<td>.46</td>
<td>.33</td>
<td></td>
</tr>
<tr>
<td>SFEC10</td>
<td>.55</td>
<td>.38</td>
<td></td>
</tr>
<tr>
<td>SFEC9</td>
<td>.54</td>
<td>.38</td>
<td></td>
</tr>
<tr>
<td>SFEC16</td>
<td>.36</td>
<td>.26</td>
<td></td>
</tr>
<tr>
<td><strong>Sport Facility</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SFEC18</td>
<td>.85</td>
<td>.70</td>
<td>.64</td>
</tr>
<tr>
<td>SFEC8</td>
<td>.71</td>
<td>.65</td>
<td></td>
</tr>
<tr>
<td>SFEC6</td>
<td>.75</td>
<td>.67</td>
<td></td>
</tr>
</tbody>
</table>

* Listed in descending order of magnitude of the dominant loading.

Items deleted after analysis are reported in bold.
reviewing the survey, 250 usable participants (83%) were recruited in this stage. The participants in Sample 2 were 30% females (N = 75) and 70% males (N = 175) and ranged from ages 17–37 with a mean age of 20.6 (SD = 2.8 years). The majority of the participants were Caucasian (N = 199, 79.6%). The number of participants was deemed appropriate for the CFA (Tabachnick & Fidell, 2001). Given that the Sport Fandom Questionnaire (Wann, 2002) resulted in a high mean score (M = 6.16), participants in Sample 2 were regarded as strong sport fans. The result of Cronbach’s alpha also indicated that the SFQ is a very reliable instrument (α = .90). As previously discussed, the use of participants who had a strong interest in sport was intentional.

**Stage Six: Investigation of Reliability and Validity.** In this stage, various statistical processes were used to examine the reliability and validity and confirm the structure of the SFECs. First, confirmatory factor analyses (CFA) of the 13 SFECs items were performed in this stage to investigate internal structure (i.e., internal consistency) of the scale through the maximum likelihood method using AMOS 7.0 (Fornell & Larcker, 1981). To measure construct reliability, the average variance extracted estimate (AVE) and new Cronbach’s alpha were also investigated with the acceptable criteria over .50. Further, discriminant validity using the AVE value and known groups was investigated.

The first CFA (Model 1) was conducted on the 13 SFECs items to examine the fit between the data and the model proposed by EFA using various fit indices (e.g., $\chi^2$, RMSEA, SRMR, CFI, TLI, AGFI). The results indicated that there were some inadequate fit indices of the model, so that the model did not strongly fit the data (see Table 4). Because the fit indices were not consistently adequate, the authors attempted to further examine the model to improve it. Therefore, the authors performed a step-by-step procedure for the follow-up analyses to develop a parsimonious model.

The authors examined the modification indices (MIs) to assess the fit of the SFECs. The modification index refers to “the statistical significance of an unspecified model relationship and represent the approximate reduction in $\chi^2$ that would be obtained by estimating the unspecified parameter of interest” (Netemeyer et al., 2003, p. 155). According to Byrne (2001), while an item having higher than 3.84 could be deleted due to statistically significant correlated error on an unintended factor, item deletion or modification of the model based on the MIs should be done carefully. Byrne (2001) argued that “the only model parameters for which the MIs are applicable are those that were fixed to a value of 0” (p. 91). Thus, item deletion needs to be done with a strong rationale. Even though it was possible for the authors to have a substantial improvement in the model by deleting items (e.g., cross-loading between items 10, 15; correlated measurement error between items 10, 15 and 14, 17), only one item (item 15: I enjoy watching new and familiar sports with friends) was deleted using MIs fit. This deletion was also supported by its substantial cross-loadings on, and content redundancy with, item 14 (Watching new sport events with my friend is exciting).

After deleting item 14, the second CFA (Model 2) was done with 12 remaining items of the SFECs (Excitement: Items 5, 11, 12, 13, 14; New Sport Events: Items 1, 9, 10, 17; Sport Facility: Items 6, 8, 18) to improve the hypothesized model. The results of the second CFA indicated Model 2 supported the three-factor model while showing all model fits were adequate except RMSEA and AGFI.
Table 4  Second CFA (Model 2) and Comparison Between Model 1 and Model 2 and Model 3

<table>
<thead>
<tr>
<th>Fit Index</th>
<th>Value Considered Good Fit</th>
<th>Value Considered Good Fit</th>
<th>Model 1</th>
<th>Indication of Fit</th>
<th>Model 2</th>
<th>Indication of Fit</th>
<th>Model 3</th>
<th>Indication of Fit</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\chi^2$</td>
<td>Value that exceeds the $\chi^2$ value when $H_0$ is true</td>
<td>204.33 (df 62, $p &lt; .001$)</td>
<td>Inadequate</td>
<td>131.22 (df 51, $p &lt; .001$)</td>
<td>Adequate</td>
<td>73.18 (df 41, $p &lt; .001$)</td>
<td>Adequate</td>
<td></td>
</tr>
<tr>
<td>RMSEA</td>
<td>Value lower than .06; ranging from .08 to .10 mediocre fit</td>
<td>.09</td>
<td>Acceptable but not strong</td>
<td>.08</td>
<td>Acceptable but not strong</td>
<td>.07</td>
<td>Adequate</td>
<td></td>
</tr>
<tr>
<td>SRMR</td>
<td>Value lower than .08</td>
<td>.06</td>
<td>Adequate</td>
<td>.05</td>
<td>Adequate</td>
<td>.04</td>
<td>Adequate</td>
<td></td>
</tr>
<tr>
<td>CFI</td>
<td>Value higher than .90</td>
<td>.90</td>
<td>Adequate</td>
<td>.93</td>
<td>Adequate</td>
<td>.96</td>
<td>Adequate</td>
<td></td>
</tr>
<tr>
<td>GFI</td>
<td>Value higher than .90</td>
<td>.89</td>
<td>Acceptable but not strong</td>
<td>.92</td>
<td>Adequate</td>
<td>.95</td>
<td>Adequate</td>
<td></td>
</tr>
<tr>
<td>TLI</td>
<td>Value higher than .90</td>
<td>.87</td>
<td>Inadequate</td>
<td>.92</td>
<td>Adequate</td>
<td>.95</td>
<td>Adequate</td>
<td></td>
</tr>
<tr>
<td>AGFI</td>
<td>Value higher than .90</td>
<td>.84</td>
<td>Inadequate</td>
<td>.88</td>
<td>Inadequate</td>
<td>.91</td>
<td>Adequate</td>
<td></td>
</tr>
</tbody>
</table>
\( \chi^2 (51) = 131.22, p < .001, \) RMSEA = .08 (90% confidence interval = .06–.10), SRMR = .05, CFI = .93, GFI = .92, TLI = .92, AGFI = .88). Even though Model 2, compared with Model 1, indicated good fit indices, it was still not a robust model. For example, two factor loadings had relatively low values (Items 1 = .50 and 11 = .51) that were close to the cutoff value of .50 (Hair et al., 1998). In addition, standardized residual indicating the covariance between the observed variable showed that there was one residual over the benchmark (2.58; Jöreskog & Sörbom, 1996; Items 1 and 6). The authors decided to drop items 1 and 11 and attempted a third CFA to obtain a better model. The comparison between Model 1 and Model 2 is reported in Table 4.

The third CFA (Model 3) was done with 10 items of the SFECS (Excitement: Items 5, 12, 13, 14; New Sport Events: Items 9, 10, 17; Sport Facility: Items 6, 8, 18). The results of the third CFA indicated that the Model 3 still supported three-factor model and showed good model fits \( \chi^2 (41) = 73.18, p < .001, \) RMSEA = .07, SRMR = .04, CFI = .96, GFI = .95, TLI = .95, AGFI = .91). Given the adequate fits of the SFECS, Model 3 seemed more robust than Model 2. Therefore, the authors believed no further modification was necessary and accepted Model 3. The comparison between Model 2 and Model 3 is reported in Table 4. In addition, the final factor loadings are presented in Figure 1.

![Figure 1 — Standardized factor loadings and items loaded on factors in the SFECS Model 3.](image-url)
In this phase, new Cronbach’s alpha and the average variance extracted estimate (AVE) with the acceptable criteria over .50 were used to measure construct reliability (Fornell & Larcker, 1981; Netemeyer et al., 2003). The results indicated that three factors of the SFECs had appropriate internal consistency (α = .82 for Excitement, α = .76 for New Sport Events, and α = .82 for Sport Facility). In addition, the results of the AVE value for each factor indicated that overall construct reliability of the SFECs was good because all AVE values were over the recommended criteria of .50 (AVE = .56 for Excitement, AVE = .52 for New Sport Events, and AVE = .60 for Sport Facility; Fornell & Larcker, 1981).

To investigate discriminant validity of the SFECs, the AVE values were used again. Discriminant validity is defined as “the validity of a construct that is high when the construct fails to correlate with other, theoretically distinct, constructs” (Vogt, 1998, p. 85). According to Fornell and Larker (1981), the AVE value needs to be higher than the squared correlation between a construct and other constructs compared. The results indicated that the discriminant validity of the SFECs was also appropriate.

As discussed briefly, the authors also used a known-group validity by examining “the extent to which a measure differs as predicted between groups who should score low and high on a trait” (Netemeyer et al., 2003, p. 81). It was hypothesized that those having strong intention to watch a novel sport would also likely to score high on the SFECs (see Park et al., 2008). For this analysis, Taekwondo was selected because it has been used consistently in the sport fan curiosity literature and has been found to be a good example of a novel sport for American fans (see Park et al., 2008, 2009). To examine significant group differences between known groups and comparison groups, two comparison groups consisting of fans of NCAA football (N = 77) and basketball (N = 78) who did not have an interest in Taekwondo were selected. In the same manner, a known-group sample (N = 70) who did not indicate that they were fans of both NCAA football and basketball but had a strong interest in watching Taekwondo were also selected. More specifically, for the known group, the authors first selected a total of 129 students who showed moderate level of interest in Taekwondo (a score greater than 4 on a 7-point scale on the item that asked their intention to watch Taekwondo). Then, they attempted to narrow down the sample to 70 students who had scores of 6 or 7 on a 7-point scale. Independent t tests were performed to examine significant differences in mean scores between two comparison groups and the known group. All participants in this analysis were selected from Samples 1 and 2.

The results of the independent t test indicated that those having a strong interest in the novel sport presented significantly higher scores on the SFECs. In other words, participants who were interested in watching Taekwondo indicated a significantly higher mean score (M = 5.20, SD = 1.01) than the known groups (M = 4.62, SD = .69, t = 4.01 for football fans; M = 4.42, SD = .82, t = 5.13 for basketball fans; p < .001). Therefore, it is believed that those having a high level of sport fan exploratory curiosity would be more likely to watch novel sports than those having the low curiosity. The construct validity of the SFECs was supported by the known-group comparison.

**Stage Seven: Developing Norms.** Churchill (1979) argued that “norm quality is a function of both the number of cases on which the norms are based and their representativeness of the samples for which means and standard deviations are noted” (p. 72). In other words, a new scale needs to be compared with other scales that
measure similar constructs to develop norms and confirm the representativeness of the scale. However, because this was the first attempt to assess sport fan curiosity, there are neither similar scales measuring sport fan curiosity nor scales theoretically related to SFECS in a sport context. Therefore, this stage cannot be completed without additional data collection with other similar measures. Instead, the authors attempted to develop norms by reviewing known-group comparisons based on the suggestions of Netemeyer et al. (2003) who claimed “known-group comparison can provide some useful norm information for evaluating scale results” (p. 165). As discussed, the SFECS has good known-group validity so that the current measure is expected to be effectively used for future norm development.

Study 3

In this study, predictive validity was tested using Sample 2 to examine the role of sport fan exploratory curiosity in predicting various sport fan behaviors.

**Stage Eight: Predictive Validity.** Based on the suggestion of Mahony et al. (1999), the authors in this phase examined predictive validity of the SFECS by investigating 1) the relationship between the SFECS and participants’ frequency of watching sport events on television as an example of current sport fan behavior and 2) the relationship between the SFECS and the participants’ intention to watch novel sports as an example future sport fan behavior. Based on the previous study (Park et al., 2008), the authors selected five novel sports (Field Hockey, Lacrosse, Taekwondo, Wakeboarding, and Ultimate Fighting) that possess moderate levels of newness and do not have a long fan history and high interest. The participants of this study were asked to answer the questions developed (e.g., How often do you watch sport events on television?; How much interest do you have in watching novel sports?) on a 7-point Likert scale (1 = very low, 7 = very high). The authors developed the following two hypotheses:

**H1:** There will be positive relationships between scores on the SFECS and frequency of watching sporting games and events on television.

**H2:** There will be positive relationships between the SFECS and interest in watching novel sports.

A series of multiple regressions were performed to investigate the predictive validity of the SFECS. The results of the first hypothesis showed that the overall model of the SFECS significantly predicted sport fans’ frequency of watching sporting games and events on television, $F(3, 246) = 36.29, p < .001$. In terms of individual relationships between the three predictors and the dependent variable, all predictors significantly predicted the participants’ spectatorship ($Excitement: t = 6.76, p < .001$; $Novel Sport Events: t = –3.06, p < .05$; $Sport Facility: t = 3.60, p < .001$). Therefore, the first hypothesis was supported, and the model explained about 31% of the variance in the dependent variable.

The results of the second hypothesis indicated that the overall model of the SFECS also significantly predicted the participants’ intention to watch novel sports, $F(3, 246) = 3.44, p < .05$. In terms of individual relationships between the three predictors and the dependent variable, all predictors except the third predictor significantly predicted the participants’ intention ($Excitement: t = 2.70, p < .05$; $Novel Sport Events: t = 2.27, p < .05$; $Sport Facility: t = 1.50, p = .13$). Together, the hypothesis was supported.
Discussion

The primary purpose of the current study was to develop an effective, reliable, and valid measure of sport fan exploratory curiosity to better understand and examine curiosity in a sport context. Sport fan exploratory curiosity refers to curiosity evoked by new experience, sensation, and excitement related to sports, players, sport teams, or sport facilities. The 10-item SFECS, which consists of three factors (Excitement, New Sport Events, Sport Facility), was found to be a reliable and valid measurement scale.

The first factor, Excitement, which contains four items, measured the degree to which sport fans seek various types of excitement in a sport setting to satisfy their curiosity. This factor reflected the unique characteristics of sport fans, such as their interaction with others (e.g., I enjoy being around “die-hard” sport fans to have a new experience; I enjoy watching new and unfamiliar sports with friends). Given that the items are conceptually related to excitement seeking in sport, it was surprising that items generated or modified originally based on the Zuckerman’s (1979) Sensation Seeking Scale (SSS) were not included in this factor. In prior curiosity literature (Collins et al., 2004; Litman & Spielberger, 2003), some components of the SSS (e.g., TAS: Thrill and Adventure Seeking; ES: Experience Seeking) have been conceptually and empirically related to various exploratory behaviors similar to the factors the SFECS is attempting to predict. One plausible explanation for the result is that there are close relationships between sensation seeking (Zuckerman, 1979) and novelty seeking (Pearson, 1970), which were used for the background of the SFECS. Spielberger and Starr (1994) also insisted that sensation seeking, novelty seeking, and curiosity share similar characteristics. Therefore, the exclusion of the items based on Zuckerman (1979) is deemed reasonable because items generated and modified based on novelty seeking (Pearson, 1970) were included instead. Novel stimulus objects or information in a sport context can simulate both sensation and novelty seeking that may elicit curiosity.

The second factor, New Sport Events, contains three items measuring the degree to which people would like to experience various new sport games and events. This also included the unique characteristics of sport fans who interact with others when consuming sport events. In addition, all items in this factor are related to sport fan behaviors that involve experiencing a new stimuli in a sport context. Given the fact that the works by Park et al. (2008, 2009) found significant relationships between sport fan curiosity and the intention to watch novel sports and seek new sports stimuli, the characteristics of this factor has been previously supported.

The third factor, Sport Facility, included three items measuring the desire to explore a new sport facility for the sake of experiencing new stimulation. The third factor is particularly important for the following reasons. First, this study is one of the first attempts to determine if a facility can elicit curiosity. While many studies (Kang, 2004; Mullin, Hardy, & Sutton, 2000; Park & Moorman; Shank, 2001) have argued that sport facilities are one of the unique and critical factors that distinguish the sport industry from other industry, there has been limited research on the relationship between a facility or place and the construct of curiosity.

Second, this study also suggested curiosity in a sport context is different from curiosity in contexts outside sport. Because prior literature has not found that facility
or location factors are consistently related to items measuring curiosity (see Boyle, 1983; Collins, 1996; Day, 1971; Litman, 1998; Loewenstein, 1994; Pearson, 1970; Spielberger & Starr, 1994; Zuckerman, 1994), it could be concluded that curiosity in a sport context is different than curiosity in other settings.

The overall reliability and validity of the SFECS was sufficient to meet the purpose of the study. After a series of statistical analyses, the authors identified three factors of the SFECS that are independent of each other. This seemed sound and appropriate in that most curiosity constructs are conceptually and distinctly separated from, but correlated with, other constructs (Byrne, 2001; Collins, 1996; Collins et al., 2004; Day, 1969, 1971, 1982; Kashdan et al., 2004; Litman & Spielberger, 2003; Naylor, 1981; Reio & Callahan 2004; Reio et al., 2006).

To examine the predictive validity of the scale, the relationships between the SFECS and frequency of watching sport and events on television and watching novel sports were investigated. The scale was a significant predictor of both of these behaviors. While the second factor (New Sport Event) had a negative relationship with the frequency of watching sporting games and events on television (t = –3.06), this result would be plausible in that the participants may not have many chances to watch novel sport events on television. A nonsignificant relationship between the third factor (Sport Facility) and the intention to watch novel sports was also found. This result would be logical in that participants may find little opportunity to explore many sport facilities built for novel sports. Overall, the scale had good predictive validity. In addition, factors varied in their ability to predict behaviors, which would suggest that while the three factors are related, they are distinct.

**Implications and Future Research**

Several implications emerge from the current study. First, this study broadly expanded the concept of curiosity in a sport setting. According to Churchill (1979) and Netemeyer et al. (2003), a reliable and valid measurement scale is essential for developing a strong body of new knowledge. Because the SFECS was found to be a reliable and valid measure, it is believed that the development of the SFECS will help researchers lay a new theoretical foundation for future curiosity study in sport. Second, this study could provide a new lens through which we can understand how people, who are not fans of sport, are initially attracted to both novel and popular sports. For example, the authors found that curiosity influences sport fans’ intention to watch a novel sport. In addition, the authors found that exploratory curiosity impacted the intention to watch games and events on television when the featured sport is one that has traditionally been more popular (i.e., high television ratings and attendance). In detail, the authors found that those having high scores on the SFECS showed higher intention to watch sport events than those having low scores on the SFECS. Overall, it is believed that the role of sport fan exploratory curiosity may help researchers explore the antecedents of interest in sport.

The SFECS can also be useful to sport management practitioners. Because the scale is more closely aligned with trait curiosity than state curiosity, it allows practitioners to identify the prevalence of this trait across their fan base. While a general curiosity scale could also be used, it would be less useful in predicting behavior among sport fans. Although those who are high in exploratory curiosity
are likely to exhibit curiosity across situations, it is unlikely that they would exhibit the same level of curiosity in all situations. For example, there are likely people who have a high level of exploratory curiosity, but little interest in sport so the curiosity trait would not be exhibited in a sport setting. Using a general exploratory curiosity scale, may cause users to overestimate the number of potential fans who are high on exploratory curiosity. Using the SFECS is a more efficient approach.

Once the practitioner determines if their sport or event is one that tends to attract a large percentage who are high on exploratory curiosity, they can then develop advertisements that would be particularly appealing to this group. In fact, past research has found that those who score high on curiosity do react differently to advertisements (see Park et al., 2009). They also may be able to segment the fan base using the SFECS which could then be used when developing promotional activities and advertising plans. For example, if they find that sport fans with high SFECS are most likely to experience their first event on the Internet, they could then use Internet promotions and advertisements to encourage continued exploration. If, however, they find those having high SFECS are not likely to experience the event on the Internet, they would not spend time and resources attracting these fans using the Internet and would instead use other means.

As with any study, the current study has limitations. First, this study only used participants recruited from three universities. Because this was the first attempt to measure sport fan curiosity, a future study should be done with more diverse participants to reconfirm the scale and generalize the model. Second, comparisons between SFECS and other scales measuring the behaviors of sport fans are also needed. Because the literature has found that curiosity is conceptually and empirically related to other psychological concepts (Kashdan et al., 2004; Lowenstein, 1994), it may also be true that the SFECS has relationships with other sport fan measures. Therefore, examining the relationship with other measures (i.e., motivation, socialization, or identification scales) is worth consideration to further investigate the validity (i.e., convergent validity) and the relationship with other variables.

Overall, curiosity has the potential to explain exploratory behaviors among sport fans (e.g., initial attraction to, or interest in, sports, teams, or players). It is believed that measuring sport fan exploratory curiosity would be an important first step in extending the curiosity literature into the sport setting and undergirding the study on sport fan curiosity. It is also hoped that the reliable and valid 10-item SFECS sheds light on the generation and development of sport fanship that influences various sport fan behaviors.

A number of prior studies in sport management have attempted to reveal how sport fans are influenced, socialized, and become loyal (e.g., Funk & James, 2001; Funk et al., 2002; Kahle et al., 1996; Milne & McDonald, 1999; Sutton et al., 1997; Trail & James, 2001; Wann, 1995). Much of this prior research has focused on how others lead individuals to become sport fans. The authors believe the examination of curiosity provides researchers with new means for understanding how sport fans are initially attracted to sport or casual individuals become true sports fans. The relationship between curiosity and fan behavior suggests that there are personality differences that can lead individuals toward various aspects of fan behavior. Thus far, there has been little research which has tied personality variables to fan behavior, so more work in this area is still needed.
Note

The term ‘prosumer’ is a combination of producer and consumer that explains how the traditional roles of producer and consumer would merge (Toffler & Toffler, 2006). Even though this is not a new terminology and not limited to media industry, this phenomenon becomes possible in our daily life due to the current development of media technology such as the Internet. For example, one thousand nonprofessional journalists write news on Ohmynews (www.ohmynews.com), the biggest online newspaper, which has more than one million readers every day. In the same manner, many sport fans produce and consume sport-related information simultaneously on their blogs, which is becoming influential sources and information in the sport industry.

Acknowledgments

This work was supported by Hankuk University of Foreign Studies Research Fund of 2009

References


