Fantasy sport: A systematic review and new research directions

Dr. Richard Tacon (corresponding author)

Department of Management

Birkbeck, University of London

Clore Management Centre

Torrington Square

London

WC1E 7JL

Telephone: 020 7631 6563

Email: r.tacon@bbk.ac.uk

Dr. Stephen Vainker

Department of Management

University of Exeter Business School

Streatham Court

University of Exeter

Exeter

EX4 4ST

Email: srv202@exeter.ac.uk

1

Abstract

Research questions: Fantasy sport is an increasingly significant social phenomenon. But what do we actually know about participation in fantasy sport? We examined the extant literature to ask: how has fantasy sport participation been conceptualised; what theoretical frameworks and research approaches have been used; what are their strengths and weaknesses; and what further research is needed to improve our understanding?

Research methods: We conducted a systematic review of academic journal articles relating to fantasy sport participation. 71 articles met the inclusion criteria and we analysed them on several dimensions. We then conducted a meta-evaluation of the research approaches used in the 71 studies and extended this through critical discussion and analysis of future research possibilities.

Results and findings: Fantasy sport participation has been conceptualised in several ways, but most commonly as a form of consumer behaviour. Studies have used various theoretical frameworks and methodologies, but a majority, to date, have employed quantitative, survey-based approaches. These have advantages, enabling researchers to build on each other's work, but also have certain conceptual and methodological limitations.

Implications: If we are to understand the social significance of fantasy sport and develop appropriate managerial policies around it, we require a well-developed understanding of fantasy sport participation. This research synthesis highlights the strengths and weaknesses of existing research and offers suggestions for how future researchers can advance knowledge in

this area. In particular, the synthesis suggests we need to offer more multi-level, critical analysis.

Fantasy sport is an increasingly significant social phenomenon. It is played by more than 57 million Americans and Canadians (Fantasy Sports Trade Association, 2017) and by millions of others worldwide. As an industry, it has been estimated at between $40 and $70 billion (Forbes, 2013) and its participants are those particularly attractive to marketers: young professionals, who are college-educated, with higher than average household incomes (Roy & Goss, 2007). But what is it like to actually participate in fantasy sport? And what might an understanding of fantasy sport participation tell us about sport management and society more broadly? To address these questions, this article undertakes a systematic review of the academic literature on fantasy sport participation and a meta-evaluation of the research approaches that have been used.

This research synthesis should be of interest to a number of different audiences. First, for those already working on the topic of fantasy sport participation, it will provide a detailed analysis of research in the field. Second, for those working on associated topics, such as sport fan segmentation or online communication, it will provide a useful summary of an increasingly relevant phenomenon. Third, for those with no previous knowledge of fantasy sport, it will highlight its potential significance as a subject of academic analysis. Fourth, for those professionals in sport management and other sectors, who are interested in fantasy sport, it will provide a useful overview of the current state of academic knowledge on the subject.

The article proceeds as follows. The next section provides some background discussion on fantasy sport and research synthesis. The following section explains how the systematic review and meta-evaluation were conducted. The following section presents the results and discussion. The following section draws together suggestions for future research and the final section concludes.

Literature Overview

Fantasy sport, to take a general definition, 'involves a group of people who choose a set of individual athletes for a fantasy team from a given sport, aggregate the statistical performances of these athletes, and then compete with one another to see whose team generates the highest point totals' (Baerg, 2009, "Defining and Describing Fantasy Sports," para. 1). Accounts of its evolution vary: some trace it back to early board games, such as those manufactured by APBA and Strat-O-Matic in the 1950s and 1960s, while others trace it back to the baseball game that Harvard professor William Gamson developed and played with colleagues in the early 1960s. All, however, highlight the role played by Dan Okrent, a prominent writer and editor, in codifying and disseminating fantasy baseball, through his rotisserie league, in the early 1980s.

To date, two academic review articles have been published on fantasy sport. In the first, Baerg (2009) surveyed the nascent literature from a communication perspective, describing fantasy sport and its history, examining the few published studies and presenting potential directions for future research. In the second, Hill and Woo (2011), also from a communication perspective, reviewed the (now slightly larger) literature and interviewed industry experts. Together, these reviews cover important ground. In particular, they identify some interesting possibilities for future research – possibilities we re-examine in our concluding discussion. However, neither aimed for systematic, comprehensive coverage of the fantasy sport literature within pre-specified boundaries, which is what we seek to do here. Nor did either of them seek systematically to evaluate the research approaches of the articles they examined. Moreover, as our subsequent analysis shows, the bulk of fantasy sport research post-dates these earlier reviews.

Research synthesis, in one form or another, is part of nearly every research project. However, 'in recent years in a number of disciplines across the social sciences, interest in research synthesis as a *primary* research activity has grown' (Weed, 2005, p. 77, emphasis added). This interest has developed, in part, from recognition that many areas of social science were not utilising past research effectively. Here, we undertake a *systematic review*, which, unlike more traditional (narrative) reviews, aims for comprehensive coverage of a particular area within pre-specified boundaries (Klassen, Jahad, & Moher, 1998). This is designed to enhance replicability and reduce the likelihood of bias. We then conduct a *meta-evaluation*, which examines 'both the application of methods to topics and areas and the extent of methodological diversity in the area' (Weed, 2006, p. 7). The purpose of this, quite straightforwardly, is to understand *how* researchers have analysed participation in fantasy sport and what the strengths and weaknesses are of the research approaches used.

Method

In what follows, we describe first the systematic review procedures and then the meta-evaluation procedures.

Systematic Review

We initially searched the following key databases: Academic Search Complete; Arts and Humanities Citation Index; Business Source Premier; Historical Abstracts; PsycARTICLES; PsycINFO; Science Citation Index and Social Sciences Citation Index. We searched for academic journal articles, whose titles or abstracts contained any of the following phrases: *fantasy sport*; *fantasy sports*; *fantasy football*; *fantasy baseball*; *fantasy soccer*; *fantasy basketball*; *fantasy cricket*; *rotisserie baseball*. We searched in English

language journals (on grounds of practicality), in any year up to and including 2016.[i] This resulted in an initial retrieval of 105 abstracts, for which we retrieved the full articles.

Each author then independently read each article and made a judgement on whether or not it met the inclusion criteria, namely that it focused directly on academic analysis of fantasy sport. On 98 of the 105 articles, we independently reached the same judgement about whether or not they met the inclusion criteria, giving an initial inter-rater agreement of 93 per cent. We then met to read and discuss the seven on which we disagreed and reached consensus.[ii] As a result of this screening, we were left with 49 articles that met the inclusion criteria. We then deepened the search, checking each of the reference lists of each of the articles and using the databases (where they had this function) and Google Scholar to examine the items that cited each of the retrieved items. In total, these electronic, manual and snowball searches led to an additional 27 articles that we retrieved in full. We then independently screened these additional articles and, on 26 out of 27, we independently reached the same judgement about whether or not they met the inclusion criteria (an inter-rater agreement of 96 per cent). We met to read and discuss the one on which we disagreed and reached consensus. As a result of this screening, 22 additional articles met the inclusion criteria, so we were left with an overall list of 71 articles.

Meta-evaluation

Each author independently examined the 71 articles and extracted the following information:

(1) *Conceptualisation of fantasy sport*[iii];

(2) *Theoretical framework*[iv];

(3) *Research approach*. For this, we extracted information on:

(a) *whether the study used primary data, secondary data, both, or no specific data*;

(b) *whether, if using data, the data was quantitative, qualitative, or mixed*;

(c) *what the main methods of data collection and analysis were*; and

(d) *what samples were used*[v].

On each of these dimensions, there was initial agreement of: (1) 94 per cent (67 of 71 articles); (2) 86 per cent (61 of 71); (3a) 97 per cent (69 of 71); (3b) 98 per cent (64 of 65); (3c) 98 per cent (64 of 65); and (3d) 95 per cent (62 of 65). Again, we met to discuss articles on which we disagreed, re-read them together and reached consensus. As with any evaluation, this process involved some degree of researcher judgement. While it is not possible to recapitulate the discussion around each specific categorisation, we hope the notes above provide sufficient insight.

One further issue needs addressing before we proceed to the results and discussion, namely the relatively high concentration of authorship within the field. In total, 167 authors were involved across the 71 articles. However, 14 of these authors were involved with three or more articles (see Table 1).[vi] This should be kept in mind as we go on to examine the state of the field. As authors often use the same theoretical frameworks and/or employ similar methods of data collection and analysis, it is important to try to consider the overall state of the field, while seeking to account for the influence of a sub-set of researchers.

[Insert Table 1 around here]

Results and Discussion

Before turning to a specific discussion of *how* research on fantasy sport participation has been conducted, it is necessary to provide a more general discussion of *what* has been done. Table 2 provides an overview of the main topics addressed in the literature so far and the main outcomes.

[Insert Table 2 around here]

As Table 2 shows, the main focus of the literature so far has been the consumer behaviour of fantasy sport participants, in particular how participation relates to consumption of professional sport and what people's motives are for participating. In addition to these two streams of research, a number of studies have explored other, specific aspects of fantasy sport consumer behaviour, such as winning expectancy (Kwak et al., 2010), customer relationship management (Smith et al., 2010) and the impact of league entry fees (Drayer et al., 2013; Mills et al., 2014).

Beyond this consumer behaviour research, a smaller number of studies have focused directly on the experience of participation and, more broadly, on the nature of fantasy sport as a novel phenomenon. This has highlighted, among other things, the gendered aspects of fantasy sport (Davis & Duncan, 2006; Howie & Campbell, 2015; Kissane & Winslow, 2016a; b) and the way in which fantasy sport constitutes a 'third level' of play (Halverson & Halverson, 2008; Price, 1990). In addition, there is an ongoing debate in the literature concerning the gambling-like aspects of fantasy sport participation (see Pickering et al., 2016, for recent discussion).

To date, then, drawing on Forscher's (1963) language of knowledge construction 'in the brickyard' (p. 339), it appears that some researchers have constructed 'edifices of knowledge' (p. 339) around particular topics (e.g., participant motives and the relationship

between fantasy sport and professional sport consumption), while others have produced individual 'bricks' (p. 339) that have yet to be stacked together. In what follows, we explore this literature more closely, by focusing on conceptualisations, theoretical frameworks and research approaches. In each section, we provide a short overview, a discussion of strengths and weaknesses and a summary and recommendations.

Conceptualisation

The most obvious distinction in the literature was between studies that conceptualised fantasy sport participation as a type of consumer behaviour and studies that did not. Table 3, which sets out the conceptualisation, focus and theoretical framework (where present) of each article, shows that 48 of the 71 studies (68 per cent) conceptualised it broadly as consumer behaviour, whereas 23 of 71 (32 per cent) conceptualised it in other ways.

[Insert Table 3 around here]

Strengths and weaknesses. Those viewing fantasy sport participation as consumer behaviour have typically described it as 'a means of sport consumption' (Dwyer & Drayer, 2010, p. 207) and/or 'an ancillary sport activity' (Dwyer et al., 2011, p. 130) and have focused predominantly on individual consumption habits. This has had three main benefits. First, this unity of focus has allowed researchers to build directly on each other's work. As noted above, Drayer et al. (2010) developed a framework for fantasy football consumption, which Dwyer and Drayer (2010) and Karg and McDonald (2011) empirically tested and Dwyer and LeCrom (2013) subsequently extended. This has enabled quantifiable comparisons between aspects of fantasy sport consumption and traditional forms of sport consumption, which, as discussed above, has led to a clearer understanding of the relationship

between the two. Second and related, it has provided actionable research to sport managers and marketers. As Dwyer et al. (2011, p. 129) note, 'exploring motivational theory and consumption habits related to fantasy sport will offer sport marketers and managers valuable information to more properly package products and services to meet the unique needs and wants of this lucrative population'.

Third, it has refined wider theoretical understanding of fantasy sport participation. Indeed, the search for motivations has led researchers to examine a range of related activities. As Lee, Seo, and Green (2013) noted, in developing their Fantasy Sport Motivation Inventory:

> Fantasy sport motivation can be considered something of a hybrid. The fantasy sport context shares features with sport spectator settings, sport and leisure participation settings, sport online settings, gambling settings, and sport video game settings. Consequently, any determination of fantasy sport motives would be expected to draw on motives associated with each of these contexts. (p. 168)

This is significant, because it has demonstrated the *multi-dimensional nature* of fantasy sport participation and has indicated the importance of academic literature beyond sport spectatorship or traditional sport consumption.

However, this, in turn, has opened up earlier consumer behaviour conceptualisations to criticism. Indeed, as Larkin (2015, pp. 122-3) argues, 'Much of the aforementioned work [on motivations] (e.g., Dwyer & Kim, 2011; Farquhar & Meeds, 2007; Suh et al., 2010) was limited in the sense that they assumed fantasy sport to represent a form of sport fanship. As such, they restricted the item pool to factors that had been identified in past work on sport spectator motivation.'

More fundamentally, consumer behaviour conceptualisations are inherently individual-level and therefore open to charges of methodological individualism. Of course,

this issue is not specific to fantasy sport research. As MacInnis and Folkes (2010) argue, much consumer behaviour research, by focusing on individual consumption habits, struggles to incorporate wider societal issues into its conceptualisations. Nevertheless, it is problematic, in that such conceptualisations may neglect the ways in which fantasy sport participation is reflexively constituted within a wider social context – a point we return to below.

So, what of the other studies that did not conceptualise fantasy sport participation primarily as a type of consumer behaviour? These were more heterogeneous. For example, in an early study, based on interviews and textual analysis, Price (1990) conceptualised fantasy baseball participation as 'a third level of play' (p. 28), in which 'a game about the description of a game involves a kind of masking that enables fantasy players by disguise, by playing new roles, to discover new levels of reality and order' (p. 28). More recently, Burr-Miller (2011) conceptualised fantasy baseball as 'equipment for living in the daily lives of its participants' (p. 444), arguing that participants experience it as 'a symbolic medicine through which [they] can understand and adapt to their ever-changing social world' (p. 445).

It would be wrong to discuss these and other such conceptualisations as if they constituted a clear group. However, they do share certain characteristics. First, they have tended to focus on the *experience* of participation, rather than on *individual motivations to consume* fantasy sport. Second, they have tended to incorporate critical and multi-level understandings of participation. For example, Schirato (2012, p. 86), who undertook a conceptual analysis of fantasy sport from a media studies perspective, conceptualised participation as a form of play, but one that is 'increasingly being played out in and through the technologies and spaces of the media as business'. This way of conceptualising is valuable, as it explicitly takes account of the wider social context within which participation occurs.

However, such conceptualisations also have weaknesses. First, they often focus on one dimension of participation, such as the play element (Carlson, 2013; Price, 1990), or spectatorship (Aikin, 2013), thus neglecting the *multi*-dimensional nature of participation. Second, they have often been developed in relative isolation; that is, they have not been refined through dialogue with other conceptual work on fantasy sport. For example, both Halverson and Halverson (2008) and Burr-Miller (2011) argued that the question of why people participate has been relatively unexplored. Yet, as we have seen, much consumer behaviour research has examined motives and, while it has primarily focused on participants in the consumer role, such research could certainly inform these other conceptualisations.

Summary and recommendations. The literature on fantasy sport participation has clearly developed over the last decade. While early researchers conceptualised it primarily as a new form of sport spectatorship, more recent research has conceptualised it as a much more complex mix of activities. As Lee, Seo and Green (2013) found, fantasy sport participation is a hybrid phenomenon that incorporates elements of sport spectatorship, sport and leisure participation, general online behaviour, gambling and video gaming. Future conceptualisations, therefore, should recognise that fantasy sport participation is *multi-dimensional*.

Future conceptualisations should also acknowledge that it is something *more than consumption*. As Binkley and Littler (2008) argue, conceptualising participants solely as consumers presumes and reinforces processes of commodification and ignores, or subverts, the nature of relationships between people. While consumer behaviour researchers will understandably focus on participants in the consumer role, they should also seek to integrate insights from the sociological literature on fantasy sport participation, which highlight its capacity to function as 'competitive fandom' (Halverson & Halverson, 2008, p. 286),

'vicarious management' (Oates, 2009, p. 31), or 'equipment for living' (Burr-Miller, 2011, p. 443). Conversely, sociologists should draw on the well-developed 'motivation' literature to inform their conceptualisations of participation. This implies a need for inter-disciplinary research, in particular between sport management and sociology of sport scholars, something highlighted recently in the literature (Doherty, 2013; Love & Andrew, 2012).

Future conceptualisations should also enable *multi-level* analysis. While the dominant consumer behaviour approach permits unity of focus, it also conceptualises participation primarily as *individual* consumption, underpinned by rational-choice decision making (Littler, 1998). This can lead to neglect of the way social structures – e.g., gender inequities in wider society (Davis & Duncan, 2006) – *construct* experiences of participation. Future conceptualisations should seek to explicitly situate fantasy sport participation within its wider social context.

Theoretical Frameworks

It is often difficult to determine what theoretical framework, if any, underpins an empirical study; and, even when one is explicitly mentioned, it is often very difficult to determine whether, and, if so, how, a framework actually informed, or derived from, the collection and analysis of data. Notwithstanding these difficulties, we sought to identify the theoretical frameworks used to investigate fantasy sport participation. We set out these findings in Table 3 above and we group them in Table 4.

[Insert Table 4 around here]

Strengths and weaknesses. The first issue to note is that 18 of the 71 articles (25 per cent) had no clearly articulated theoretical framework. While this is not unusual for social

scientific research on a particular phenomenon – for example, Weed (2006) found that 38 per cent of the studies in his systematic review on sports tourism had no clear theoretical framework – it is nevertheless problematic. As Weed (2006, p. 19) himself argued, unless findings 'are located within the broader body of knowledge, and implications for, or the contribution to, this body of knowledge is identified, they contribute very little'.

The remainder of the studies were split into those that articulated clear theoretical frameworks (29 of 71; 41 per cent) and those that are best described as quasi-theoretical, meaning they discussed particular concepts or frames, without articulating a clear theoretical framework (24 of 71; 34 per cent). As Table 4 shows, where articles did employ clear theoretical frameworks, by far the most common were the attitude-behaviour relationship (A-BR) framework (eight studies) and the uses and gratifications (U&G) framework (seven studies)[vii]. The A-BR framework, in short, 'suggests a positive attitude toward a product leads to increased consumption and a negative or non-attitude leads to decreased or non-consumption' (Dwyer, 2013, p. 34), while the U&G framework, put simply, posits that individuals have a range of needs that they seek to gratify through using, or consuming, media in certain ways. Both of these are cognitive/behavioural frameworks that are well established in consumer behaviour research. Beyond these, a further 24 studies (12 theoretical; 12 quasi-theoretical) employed cognitive/behavioural frameworks. This follows through from the conceptualisations discussed above. In short, the meta-evaluation indicated a dominant theoretical grouping, drawing on consumer behaviour conceptualisations and cognitive/behavioural frames.

These frameworks have clear strengths. Most obviously, they have allowed fantasy sport researchers to build directly on one another's work. For example, as noted earlier, researchers (e.g., Dwyer & Kim, 2011) have used the U&G framework to identify and quantify motives for participation, which, in turn, has enabled managers and marketers to

segment consumers and assess the impact of various marketing strategies. Yet researchers have not simply borrowed frameworks from mainstream consumer behaviour research, they have also adapted them. For example, Drayer at al. (2010) adapted Fazio et al.'s (1983) original A-BR framework to better understand the influence of fantasy sport participation on the consumption of mainstream sports products and services. Their model proposed that: (i) fantasy football participation affects attitudes towards the NFL, which, in turn, influences an individual's NFL perceptions; (ii) norms concerning existing knowledge and feelings towards a favourite team will simultaneously guide NFL perceptions; and (iii) these altered perceptions will guide NFL consumption behaviour. Subsequently, Dwyer and Lecrom (2013, p. 126) refined the model by 'specifically exploring changes in a participant's perception of the NFL as a result of fantasy football participation'. In relation to the event itself, they found that: (i) there was cognitive dissonance among fantasy and favourite team values; (ii) participants required additional focus during in-game viewership; (iii) participants had little interest in traditional game outcomes; and (iv) interest in NFL games and programming became an all-day event. The interesting point here – beyond the specific findings – is that the complexity of the mutually constitutive relationship between fantasy sport participation and traditional sport consumption required adaptation of a more basic theoretical framework. As Drayer et al. (2010, p. 132) note, 'New and immersive activities and technologies are continually altering the sport consumption landscape'. This raises questions about the extent to which the 'novelty' of fantasy sport participation necessitates new theory development – a point we return to below.

Yet, there are also criticisms of such frameworks. Two are particularly relevant. First, it has been argued that, by focusing on needs, or trying to link perceptions to consumption behaviour, cognitive/behavioural frameworks often neglect the sociocultural, experiential, symbolic, and ideological aspects of how consumers *construct* and *engage with* various

products, or activities (Arnould & Thompson, 2005). To date, this critique has not been made explicitly within the fantasy sport literature. Indeed, criticism of research using cognitive/behavioural frameworks has largely focused on which items have been included within the 'search for motivations' (Larkin, 2015; Lee, Seo & Green, 2013), or which particular methods of data collection have been used (Hill & Woo, 2011). However, it is implicit in some of the studies discussed below (e.g., Burr-Miller, 2011; Halverson & Halverson, 2008; Schirato, 2012) that seek to address the 'the less quantifiable side of fantasy sports involvement' (Burr-Miller, 2011, p. 444).

The second criticism is that, in focusing on individual attitudes and behaviours, such frameworks deal *uncritically* with participation. This is best illustrated with reference to the U&G framework. As Nordenstreng (1970) argued, nearly half a century ago, so-called needs develop within existing social structures. As such, studies employing frameworks that seek to identify and quantify needs are likely to provide (implicit) support for existing social arrangements and the power dynamics that characterise them. This critique is present in the fantasy sport literature, albeit in a minor way. For example, Davis and Duncan's (2006) early study, which examined the way in which fantasy sport operated as a 'site for reinforcing hegemonic masculinity by creating and recreating what it means to be a man through masculine interaction' (p. 245), carries implicit criticism of frameworks that treat participation neutrally. In addition, Baerg (2009) argued in his early review that, with the exception of Davis and Duncan (2006) and Bernhard and Eade (2005), participation is accepted uncritically. This is problematic, he argued, insofar as it does not permit exploration of the broader ideological consequences of participation, or 'the kinds of power configurations and structures [that] might be affirmed by fantasy sports when it comes to race, class, and gender' (Baerg, 2009, "Directions for Future Research," para. 9).

So, what about studies outside the dominant theoretical grouping that offered alternative frameworks for understanding fantasy sport? These were much more heterogeneous and are therefore difficult to evaluate as a group. Nevertheless, they share certain strengths and weaknesses. First, as Table 4 shows, only two offered *clearly articulated* frameworks. In the first, Halverson and Halverson (2008), in a mixed-methods study, developed a framework of 'competitive fandom' (p. 286), which they summarise as follows:

> Fantasy sports games require a combination of fan culture practices and gamers' skills and habits of mind. Fandom becomes competitive when the knowledge acquired in the fan domain is transformed into strategic information to guide play in a new kind of game. This combination of frames helps describe the kinds of knowledge and motivation required to play fantasy sports and how such participation sparks further learning. (p. 286)

They explicitly argue that fantasy sport is a novel phenomenon that incorporates aspects of fan culture and competitive gaming and so develop a simple framework on which researchers can 'locate' (p. 291) participants. In the second, Aikin (2013) developed a philosophical framework of responsible spectatorship and identified how fantasy sport violates a number of the propositions.

Beyond these, 12 quasi-theoretical studies drew on, or developed, various theoretical concepts to inform understanding of fantasy sport participation. For example, Oates (2009) advanced a theory of 'vicarious management' (p. 31) through discourse analysis of fantasy football and other NFL-related media products, in which he argued that fantasy sport involves 'the presentation of athletes as commodities to be consumed selectively and self-consciously by sports fans' (p. 31). Schirato (2012), in a conceptual analysis, argued that we should

understand fantasy sport participation as a 'form of play as escape … [that] is increasingly being played out in and through the technologies and spaces of the media as business' (p. 86).

Such studies have certain strengths. First, they tend to enable a multi-level analysis of fantasy sport participation. They explicitly locate participation within its wider context, enabling (or encouraging) researchers to explore the wider societal implications of participation. Second, and related, they enable (or encourage) critical analysis of participation. That is, they tend to encourage a reflexive examination of participation, rather than presenting it neutrally as a type of consumer behaviour. So, for example, Aikin's (2013) framework not only examines the influence of fantasy sport participation on traditional forms of sport spectatorship, as some of the consumer behaviour research does, but also explicitly questions the ethical nature of this influence.

Yet such frameworks also have weaknesses. First, they rarely offer formal propositions for future researchers to examine, or test. While testing is rarely the objective of these kinds of (mostly qualitative) studies – and should not be considered a pre-requisite of social science research – it is still possible, and often desirable, for researchers to offer frameworks with certain formal propositions that can be systematically examined in subsequent research. Second, such frameworks have, to date, been developed largely in isolation. That is, researchers have seldom built directly on each other's work, or sought to refine, or synthesise, previous frameworks. So, for example, Halverson and Halverson (2008) developed their framework through an analysis of fantasy sport as a 'third plane of activity' (p. 301), yet did not incorporate the earlier insights of Price (1990), who analysed fantasy sport as a 'tertiary level of activity' (p. 30). Of course, this is due, in part, to the relative youth of the field and the fact that many of these studies were written and published contemporaneously. Nevertheless, it means that, at present, many of the frameworks developed through these studies tend to talk past one another.

So, what explains the current theoretical picture in fantasy sport research? This is not straightforward to answer, but a close reading of the articles suggests that researchers have been wrestling with the 'novelty' of the phenomenon. As discussed above, early consumer behaviour conceptualisations saw it primarily as an extension of spectator sport and therefore drew on established frameworks, such as the U&G framework. However, as findings have suggested that fantasy sport is more multi-dimensional (e.g., Lee, Seo & Green, 2013), researchers have been encouraged (or forced) to draw on theory beyond traditional sport spectatorship. The research drawing on the AB-R framework is significant here. Rather than treating fantasy sport and traditional sport consumption as straightforward, separable activities, this work has developed more nuanced theoretical frameworks to understand how they mutually influence one another.

Beyond this, several of the isolated, mostly quasi-theoretical studies emphasise the novelty of the phenomenon. These suggest researchers need to look to concepts, such as meaningful play (Huizinga, 1955) and fan culture (Jenkins, 2006) to understand participation. Yet, as noted, this is still early theoretical scoping and researchers still appear undecided as to whether existing theoretical frameworks can be used to understand fantasy sport participation.

Summary and recommendations. The first recommendation is simple, namely that future research should be theoretically informed – drawing on a clearly articulated framework and/or refining an existing framework and/or developing theory. The dominant theoretical grouping is making clear advances in the field. For example, the AB-R research has developed a nuanced understanding of the relationship between fantasy sport and professional sport consumption and recent studies (e.g., Dwyer et al., 2016) are refining this understanding. Researchers should continue to refine this theoretical framework.

Yet, this research deals with participation primarily at an individual, cognitive/behavioural level. As other studies highlight (e.g., Halverson & Halverson, 2008; Price, 1990), participation operates in and through group interaction. As such, we need more clearly articulated theoretical frameworks that examine the sub-cultural, group aspects of participation. Future consumer behaviour research, then, could usefully draw on theoretical frameworks from consumer culture theory (Arnould & Thompson, 2005) to address the experiential, sub-cultural aspects of participation.

Beyond the dominant theoretical grouping, researchers have started to sketch out other theoretical frameworks for understanding participation. At present, though, these are isolated, mostly quasi-theoretical, studies. Future research should seek to operationalise and empirically examine these frameworks. There is evidence of research moving in this direction, as Kissane and Winslow (2016a) sought to operationalise and empirically examine the hegemonic masculine aspects of fantasy sport, building on Davis and Duncan's (2006) earlier quasi-framework. More research in this vein would contribute more clearly to theory development.

Research Approaches

In the final part of the meta-evaluation, we examined the type of data, main research approaches, data collection and analysis methods and samples and populations employed in the studies. Overall, we found that 65 of the 71 studies (92 per cent) used some type of primary data, secondary data, or both (see Table 5).

[Insert Table 5 around here]

There are two obvious things to note here. First, the overwhelming majority of the studies included in the review involved the collection and analysis of *primary* data (55 of 65; 85 per cent). Second, the vast majority of studies involving data relied on the collection and analysis of exclusively *quantitative* data (40 of 65; 62 per cent).[viii] Table 6 provides a more detailed breakdown of the studies using primary data.

[Insert Table 6 around here]

Strengths and weaknesses. As Table 6 makes clear, the dominant research approach for examining fantasy sport participation has been survey-based, typically employing one or more questionnaires and one or more statistical analysis techniques. This is broadly consistent with the consumer behaviour focus of much of the research, which, as discussed, has sought to identify and quantify motives, develop and test motivational scales, segment consumers and assess the relationship between fantasy sport participation and traditional sport consumption.

The meta-evaluation also examined the populations surveyed. As Table 6 indicates, around a quarter surveyed college students. This approach is often criticised in sport management/marketing research, as it can limit the generalisability of the findings. However, the meta-evaluation indicated that it was not dominant in fantasy sport research. In addition, the most common form of sampling was convenience sampling. This is not necessarily problematic; indeed, all but two of the quantitative studies used samples of more than 100 respondents, and a majority reported demographic details that permitted some kind of comparison with relevant population statistics. Nevertheless, such research would benefit from larger and more robust samples. As one example of a more robust study, Dwyer (2011a) randomly surveyed 1,600 individuals, drawn from a pool of 5,000 Fantasy Sport Trade

Association member participants, achieving a response rate of 21.5 per cent and subjecting the data to a dichotomisation procedure on the variable of interest. The author himself notes certain limitations, but this approach permitted a relatively robust examination of the statistical relationship between fantasy football involvement and loyalty to individual NFL teams.

Researchers have also usefully employed mixed-methods approaches in order to develop and test motivational scales. For example, Dwyer and Kim (2011), within a U&G framework, used focus groups and an expert panel to develop an initial scale, which they then piloted, refined and validated, producing the *Motivation Scale for Fantasy Football Participation (MSFFP)*. In addition, Lee, Seo, and Green (2013) used initial open questions posted on message-boards to identify items for their *Fantasy Sport Motivation Inventory* (FanSMI), then confirmed and established its reliability and validity through examining the test-retest reliability and criterion validity. Researchers are also starting to use experimental designs. In the first, Kwak et al. (2013) used a 2x2 between-subjects experiment to examine the effects of marketer-controlled variables on participants' judgements and participation decisions and found that 'promotional information emphasizing control heuristics and expert knowledge can increase consumers' beliefs that they can control their outcome, which subsequently influences their decision to participate' (p. 393). Subsequently, Mills et al. (2014) and Goldsmith and Walker (2015), respectively, examined the influence of financial information on perceptions of opponents' perceived skill level and expected outcomes and the influence of fantasy sport on the attitudes and behaviours of non-fans of NASCAR. This approach is helping to provide a more fine-grained understanding of the relationship between fantasy sport and professional sport consumption and provide specific, usable information for sport managers and marketers.

The smaller number of studies using qualitative data drew on a wider range of data sources, as is typical in qualitative studies. From the beginning, there has been an interest in the online dimension of fantasy sport. For example, the analysis of fantasy sport websites, message-boards and personal and group communications has enabled some researchers to pay close attention to the discourse of fantasy sport (Davis & Duncan, 2006; Hiltner & Walker, 1996; Oates, 2009) and the decision-making strategies of fantasy sport participants (Smith et al., 2006).

These approaches have also enabled researchers to adopt a more critical stance towards the fantasy sport phenomenon than was evident in some of the consumer behaviour studies. For example, Davis and Duncan's (2006) study, which involved textual analysis of fantasy league websites, personal observations and a focus group, examined the appeals and experiences of fantasy sport, but also explored the role of fantasy sport in reinforcing hegemonic ideologies and traditional gender roles. It is interesting to note that these themes have subsequently been picked up (and largely corroborated) in survey-based research (Kissane & Winslow, 2016a).

Viewed as a group, there are certain limitations with the current set of research approaches. Most obviously, there is a lack of diversity in the main approaches used. As Table 6 shows, out of the 66 research approaches employed, 41 were surveys (62 per cent). This is not necessarily problematic; indeed, such approaches are consistent with the cognitive-behavioural consumer focus of much of the research. Yet they can be criticised on various grounds. First, even concerning their own immediate objectives, namely the measurement and/or understanding of attitudes and behaviour, it has been argued that methodologies that rely on self-reports, rather than observable behaviour, may be suspect (see Ruggerio, 2000, for discussion). Second, more broadly, critics from within consumer studies have argued that survey-based, cognitive-behavioural approaches struggle to capture the

subjective experience of consumption (Holbrook & Hirschman, 1982) and/or the ways in which individuals and groups create, maintain and use culture (Arnould & Thompson, 2005). In addition, it can be argued that methodological approaches that focus on attitudes and behaviour (and the presumed links between them) fail adequately to capture people's embodied experiences (Allen-Collinson, 2009).

Third, and more broadly again, it can be argued that survey-based research on motives and consumption habits focuses too narrowly on participants in the consumer role. This relates to the earlier discussion on conceptualisation. Early researchers typically saw fantasy sport as just another form of sport consumption (see Dwyer et al., 2016, for a discussion). It therefore made sense to conceptualise it as a form of consumer behaviour and investigate it empirically in this way. However, this very approach – as well as alternative conceptualisations – has suggested that fantasy sport is a more complex, hybrid activity (Halverson & Halverson, 2008; Lee, Seo & Green, 2013). The synthesis suggests researchers are still exploring how best to conceptualise and empirically investigate it.

The more disparate group of mostly sociological studies incorporated more explicitly critical analysis than was evident in the consumer behaviour studies. However, to date, many of these have been exploratory in nature and have lacked methodological rigour. Although sampling is treated differently in qualitative research – the typical objective being to gain in-depth insight into a phenomenon, rather than to make statistical inferences from a sample to a population – few of the articles provided much detail on their research participants and few discussed issues of transferability, that is, how future researchers might build upon their context-specific findings. In addition, very few provide detailed methodologies, so it was often difficult to understand precisely how the studies were conducted. For example, Kaplan's (1990) early article on fantasy baseball provided some rich insight into the

experience of participation, but gave no details on its methodology beyond noting that the author sent out a questionnaire.

More specifically, very few of these articles discussed data analysis in detail. As Table 6 shows, the qualitative studies typically used some form of either content analysis or thematic analysis. However, in most, it was unclear how this was done. For example, while Oates (2009) offered an insightful discourse analysis of three NFL-related texts, namely NFL-related fantasy football products, media coverage of the NFL draft and the video game Madden NFL, he did not explain *how* he analysed his data, or drew out his interpretations, beyond saying, 'I identify a theme (vicarious management), which I then follow through the "web of discourses" produced around the theme' (pp. 33-34). This is problematic. While theoretical coding within a grounded theory approach should lead to the development of clear theoretical models, this was not apparent in the work on fantasy sport, as the discussion of theoretical frameworks above made clear. By contrast, Smith et al. (2006), who conducted a 'cognitive ethnography' (p. 351) of decision-making in online fantasy sport communities, provided a highly detailed account of their data analysis strategy. They explained how coding was conducted by a group of eight researchers over a year and how open coding was used 'to extract more detailed comparisons of strategies, but the unit of data analysis became more minute to include individual words, phrases, and sentences within the threads' (p. 352). This did not lead to a clearly developed theoretical framework, but it did identify a small number of 'informal, domain-specific heuristics' (p. 347), which have yet to be empirically tested in subsequent studies. In comparison, the quantitative studies were much more varied and detailed in their data analysis methods (see Table 6).

One final weakness – or, rather, omission – of the research approaches employed so far concerns the choice of level of analysis. This is bound up with the types of research question that have been investigated so far. As Tables 2 and 3 showed earlier, the dominant

research questions to date have focused on consumer behaviour: What are the core motives for participating? What are the most appropriate scales for measuring these motives? What consumer segments exist? What is the relationship between fantasy sport and professional sport consumption? What are the influences of specific elements (e.g., entry fees) on consumption? And so on. Such questions are clearly significant for managers and marketers. One consequence, however, is that the focus tends to stay at the micro level, through gathering individual responses to survey questions. The more disparate group of mostly sociological studies have also tended to focus on the micro level, albeit sometimes incorporating more macro (societal) level analysis. Very few, then, to date, have employed research approaches explicitly examining fantasy sport participation at a meso (group, or community) level. This seems strange, given that leagues and (online) group interaction appear to play such an integral part in the fantasy sport experience.

Summary and recommendations. Consumer behaviour research on fantasy sport should build on its predominantly survey-based approach, while also embracing greater diversity. While questionnaire surveys remain a core approach, such studies should seek to test and refine the scales and typologies and, as some have started to do, refine these within different sports. Future studies should also aim to use random, representative samples, rather than the more currently common convenience samples. In addition, future studies should build on the small number of experimental studies, allowing greater insight into the effect of particular marketing strategies. Furthermore, consumer studies relying on quantitative data should seek to employ longitudinal research designs, permitting a greater understanding of how participants engage with fantasy sport over time, as well as conjoint analysis and projective techniques. Still within the consumer context, as noted, studies could incorporate more interpretive insight, through further interviews and focus groups and ethnographic research approaches.

Beyond this, studies should employ research approaches that can examine participants more holistically, not merely in the consumer role, and allow for greater critical reflexivity about fantasy sport and the nature of consumption. Such studies could include the current ethnographic and discourse analytic strategies, but should ensure methodological rigour, by including, among other things, clearer discussion of data analysis and more attention to the transferability of findings. Work that seeks to understand the experience of participation beyond the identification and quantification of motives should draw on phenomenological approaches, which are increasingly used in sport (Allen-Collinson, 2009). Finally, as noted, studies should focus more explicitly on meso-level analysis. This will involve studying the online communities through which people typically participate in fantasy sport and employing appropriate group-level research approaches. In particular, further use should be made of (online and/or offline) ethnographic approaches, which are well suited for understanding group cultures, shared meanings and social interaction.

A Framework for Future Research

The foregoing meta-evaluation has highlighted the strengths and weaknesses of existing research on fantasy sport participation and, in turn, has made a number of recommendations. In this section, we draw these recommendations together to provide a framework for future research. As discussed, fantasy sport participation is a multi-dimensional, multi-level phenomenon. Consequently, we have organised the following framework according to: (i) the level of analysis such research might adopt; and (ii) the methodological approaches that researchers might use (see Table 7)[ix].

[Insert Table 7 around here]

This framework seeks to broaden the research on fantasy sport, while building on existing streams of research. So, initially it asks researchers to more closely investigate the *experiences* of fantasy sport participants and how participation influences participants' *everyday lives*. We can see the beginnings of such a research approach in Kissane and Winslow's (2016a) recent survey-based study of how fantasy sports participation impacts players' perceptions of their relationships with others. This also offers the opportunity for more meso-level research, by exploring how fantasy sport influences wider patterns of social interaction. We also recommend developing existing streams of research, by: testing and refining motivational scales in different sports and different countries; refining our understanding of the interplay between fantasy sport participation and professional sport consumption; and examining the impact of particular management and marketing strategies.

The framework for future research then encourages a broadening out of the primarily micro-level focus of the research so far. Given fantasy sport is primarily played in and through groups, it is important to understand how fantasy sport sub-cultures operate and how participation shapes social interaction. More broadly still, we need to better understand the macro-level impact of fantasy sport. While researchers have developed a good understanding of the way attitudes and behaviours around fantasy sport shape attitudes and behaviours around professional sport consumption (and vice-versa), there is less understanding of how the fantasy sport industry is positioned in relation to the existing professional sport and media complex (Baerg, 2009). Of course, it is important to note that this is not an exhaustive list, but an indicative list, based on the main findings of the research synthesis. Indeed, it is our hope that other researchers will use this synthesis as an opportunity to develop their own ideas for research in this area.

Such research, as noted at the outset, might be conducted by and/or be of interest to scholars currently working within the field of fantasy sport, or outside. For example, for communication scholars, research conducted on fantasy sport so far has enabled insight into online conflict (Hiltner & Walker, 1996), vicarious management (Oates, 2009) and the way the technologies and spaces of the media business shape individual play (Schirato, 2012). Indeed, as Hill and Woo (2011, p. 90) pointed out, 'Because fantasy sports generally (but not always) occur in Internet-mediated platforms, virtually any scholarly study focused on fantasy sport should have some communication implications'. Future research could develop these and related insights still further, opening up discussion of individual- and group-level communication and providing an interesting context for examining online/offline communication and identity formation (Burr-Miller, 2011).

More broadly, such research should enable closer integration between the sub-disciplines of sport management and sociology of sport. A number of scholars (Amis & Silk, 2005; Love & Andrew, 2012) have noted the relative lack of collaboration across these disciplinary boundaries, despite the potential benefits such collaboration could bring. This research synthesis indicates that fantasy sport is one fruitful topic for such collaboration.

Conclusion

Research synthesis, it is argued, 'has a role to play in both providing new insights into research areas, and in contributing to a more efficient research effort' (Weed, 2005, p. 86). This article has sought to play this role in relation to fantasy sport participation. It has shown that, to date, a majority of researchers have conceptualised fantasy sport participation as a form of consumer behaviour and have used similar theoretical frameworks and predominantly quantitative, survey-based approaches in their empirical work. To draw on

Forscher's (1963) language of knowledge construction 'in the brickyard' (p. 339), we can say that such researchers have been constructing an 'edifice of knowledge' (p. 339) around consumption behaviour within fantasy sport. In addition, a smaller number of researchers have focused on other aspects of participation, offering critical insight into the role of fantasy sport in wider society. To draw on Forscher (1963) again, we can see such studies, at present, as a number of individual 'bricks' (p. 339).

The key research propositions that emerge from the analysis are as follows: (i) we need to explicitly recognise the multi-dimensional nature of participation and conceptualise it and empirically investigate it as a hybrid activity; (ii) we need to build on current research strengths around the consumer behaviour of fantasy sport participants, by further testing and refining existing models in different sports, in different countries and on representative populations; (iii) we need to broaden our focus, in order to understand how fantasy sport operates at a meso and macro level; and (iv) we need to critically reflect on participation within its wider social context.

In an early discussion of fantasy sport, Baerg (2009) argued that research on fantasy sport participation could serve as a springboard for a wider analysis of society. We agree with such an argument and hope that, whichever metaphor you prefer – the brickyard, or the springboard – this article will contribute to a more efficient research effort on a significant and growing phenomenon.

References

Aikin, S. F. (2013). Responsible sports spectatorship and the problem of fantasy leagues. *International Journal of Applied Philosophy, 27*(2), 195-206. doi: 10.5840/ijap20131296

Allen-Collinson, J. (2009). Sporting embodiment: Sports studies and the (continuing)

promise of phenomenology. *Qualitative Research in Sport & Exercise*, *1*(3), 279-296. doi:

10.1080/19398440903192340

Amis, J., & Silk, M. (2005). Rupture: Promoting critical and innovative approaches to the

study of sport management. *Journal of Sport Management*, *19*(4), 355-366.

Arnould, E. J., & Thompson, C. J. (2005). Consumer culture theory (CCT): Twenty years of

research. *Journal of Consumer Research*, *31*(4), 868-882.

Ballouli, K., Hutchinson, M., Cattani, K., & Reese, J. (2013). A qualitative inquiry into

motivations to participate in fantasy football. *International Journal of Sport Management,*

14(2), 211-232.

Baerg, A. (2009). Just a fantasy? Exploring fantasy sports. *Electronic Journal of*

Communication, 19(3-4).

Bernhard, B. J., & Eade, V. H. (2005). Gambling in a fantasy world: An exploratory study of

rotisserie baseball games. *UNLV Gaming Research & Review Journal, 9*(1), 29-42.

Billings, A. C., & Ruihley, B. J. (2013). Why we watch, why we play: The relationship

between fantasy sport and fanship motivations. *Mass Communication & Society, 16*(1), 5-

25. doi: 10.1080/15205436.2011.635260

Binkley, S., & Littler, J. (2008). Introduction: Cultural studies and anti-consumerism: A

critical encounter. *Cultural Studies*, *22*(5), 519-530.

Brock, T. P., Assemi, M., Corelli, R. L., El-Ibiary, S. Y., Kavookjian, J., Martin, B. A., et al.

(2014). A nontraditional faculty development initiative using a social media platform.

American Journal of Pharmaceutical Education, 78(5).

Brown, N., Billings, A. C., & Ruihley, B. J. (2012). Exploring the change in motivations for

fantasy sport participation during the life cycle of a sports fan. *Communication Research*

Reports, 29(4), 333-342. doi: 10.1080/08824096.2012.723646

Burr-Miller, A. C. (2011). What's your fantasy? Fantasy baseball as equipment for living.

   Southern Communication Journal, 76(5), 443-464.

   http://dx.doi.org/10.1080/10417941003725299

Carlson, C. (2013). The reality of fantasy sports: A metaphysical and ethical analysis.

   Journal of the Philosophy of Sport, 40(2), 187-204.

   http://dx.doi.org/10.1080/00948705.2013.785422

Davis, N. W., & Duncan, M. C. (2006). Reinforcing masculine privilege through fantasy

   sport league participation. *Journal of Sport & Social Issues, 30*(3), 244-264. doi:

   10.1177/0193723506290324

Dhurup, M., & Dlodlo, N. (2013). To play or not to play! Online fantasy football

   consumption motives and the relationship with attitude and future behavioural intentions.

   Mediterranean Journal of Social Sciences, 4(14), 201-211. doi:

   10.5901/mjss.2013.v4n14p201

Ditizio, A. A. (2016). Fantasy sports and gambling in sport: Marketing implications for

   branding and fan engagement. *Journal of Electronic Commerce in Organizations, 14*(4),

   52-65.

Dlodlo, N., & Dhurup, M. (2013). Are university students living in a world of fantasy?

   Fantasy football motives among students at a South African university of technology.

   African Journal for Physical, Health Education, Recreation & Dance, 19, 1068-1085.

Doherty, A. (2013). "It takes a village:" Interdisciplinary research for sport management.

   Journal of Sport Management, *27*(1), 1-10.

Drayer, J., & Dwyer, B. (2013). Perception of fantasy is not always the reality: An

   exploratory examination into blacks' lack of participation in fantasy sports. *International

   Journal of Sport Management, 14*(1), 81-103.

Drayer, J., Dwyer, B., & Shapiro, S. L. (2013). Examining the impact of league entry fees on

online fantasy sport participation and league consumption. *European Sport Management*

Quarterly, 13(3), 339-357. http://dx.doi.org/10.1080/16184742.2013.783605

Drayer, J., Shapiro, S. L., Dwyer, B., Morse, A. L., & White, J. (2010). The effects of fantasy

football participation on NFL consumption: A qualitative analysis. *Sport Management*

Review, 13(2), 129-141. doi:10.1016/j.smr.2009.02.001

Dwyer, B. (2011a). Divided loyalty? An analysis of fantasy football involvement and fan

loyalty to individual National Football League (NFL) teams. *Journal of Sport*

Management, 25(5), 445-457.

Dwyer, B. (2011b). The impact of fantasy football involvement on intentions to watch

national football league games on television. *International Journal of Sport*

Communication, 4(3), 375-396.

Dwyer, B. (2013). The impact of game outcomes on fantasy football participation and

National Football League media consumption. *Sport Marketing Quarterly, 22*(1), 33-47.

Dwyer, B., & Drayer, J. (2010). Fantasy sport consumer segmentation: An investigation into

the differing consumption modes of fantasy football participants. *Sport Marketing*

Quarterly, 19(4), 207-216.

Dwyer, B., Drayer, J., Greenhalgh, G., & Lecrom, C. W. (2013). Substitute or complement?

Fantasy football and NFL fandom. *Marketing Management Journal, 23*(2), 71-85.

Dwyer, B., & Kim, Y. (2011). For love or money: Developing and validating a motivational

scale for fantasy football participation. *Journal of Sport Management, 25*(1), 70-83.

Dwyer, B., & Lecrom, C. W. (2013). Is fantasy trumping reality? The redefined National

Football League experience of novice fantasy football participants. *Journal of*

Contemporary Athletics, 7(3), 119-139.

Dwyer, B., Achen, R. M., & Lupinek, J. M. (2016). Fantasy vs. reality: Exploring the BIRGing and CORFing behavior of fantasy football participants. *Sport Marketing Quarterly, 25*(3), 152-165.

Dwyer, B., Shapiro, S. L., & Drayer, J. (2011). Segmenting motivation: An analysis of fantasy baseball motives and mediated sport consumption. *Sport Marketing Quarterly, 20*(3), 129-137.

Fantasy Sports Trade Association. (2017). *Industry demographics*. Retrieved from: http://fsta.org/research/industry-demographics/.

Farquhar, L. K., & Meeds, R. (2007). Types of fantasy sports users and their motivations. *Journal of Computer-Mediated Communication, 12*(4), 1208-1228. doi:10.1111/j.1083-6101.2007.00370.x

Fazio, R. H., Powell, M. C., & Herr, P. M. (1983). Toward a process model of the attitude–behavior relation: Accessing one's attitude upon mere observation of the attitude object. *Journal of Personality and Social Psychology*, *44*(4), 723-735.

Forbes. (2013). The $70 Billion Fantasy Football Market. Retrieved from: http://www.forbes.com/sites/briangoff/2013/08/20/the-70-billion-fantasy-football-market/.

Forscher, B. K. (1963). Chaos in the brickyard. *Science*, *142*, 339.

Fortunato, J. A. (2011). Whitepaper summary: The relationship of fantasy football participation with NFL television ratings. *Journal of Sport Administration & Supervision, 3*(1).

Goldsmith, A. L., & Walker, M. (2015). The NASCAR experience: Examining the influence of fantasy sport participation on 'non-fans'. *Sport Management Review, 18*(2), 231-243.

Halverson, E. R., & Halverson, R. (2008). Fantasy baseball: The case for competitive fandom. *Games and Culture: A Journal of Interactive Media, 3*(3-4), 286-308. doi: 10.1177/1555412008317310

Hill, S. G., & Woo, C. W. (2011). New media, new audiences, and new questions: Exploring a communication research agenda for fantasy sports. *Journal of Sports Media, 6*(1), 85-114. doi: 10.1353/jsm.2011.0005

Hiltner, J. R., & Walker, J. R. (1996). Super frustration Sunday: The day Prodigy's fantasy baseball died; An analysis of the dynamics of electronic communication. *Journal of Popular Culture, 30*(3), 103-117. doi: 10.1111/j.0022-3840.1996.00103.x

Holbrook, M. B., & Hirschman, E. C. (1982). The experiential aspects of consumption: Consumer fantasies, feelings, and fun. *Journal of Consumer Research*, *9*(2), 132-140.

Howie, L., & Campbell, P. (2015). Fantasy sports: Socialization and gender relations. *Journal of Sport & Social Issues, 39*(1), 61-77.

Huizinga, J. (1955). *Homo ludens: A study of the play-element in culture*. Boston, MA: Beacon Press.

Ibrahim, H. (2014). Technology acceptance model: Extension to sport consumption. *Annals of DAAAM & Proceedings, 24*(1), 1534-1540.

Jenkins, H. (2006). *Cultural convergence: Where old and new media collide*. New York: New York University Press.

Kaplan, J. (1990). Universal baseball madness: The effect of rotisserie play on psyche and social life. *Play & Culture, 3*(1), 11-17.

Karg, A. J., & McDonald, H. (2011). Fantasy sport participation as a complement to traditional sport consumption. *Sport Management Review, 14*(4), 327-346. doi: 10.1016/j.smr.2010.11.004

Katz, E., Blumler, J. G., & Gurevitch, M. (1973). Uses and gratifications research. *Public Opinion Quarterly*, *37*(4), 509-523.

Kissane, R. J., & Winslow, S. (2016a). Bonding and abandoning: Gender, social interaction, and relationships in fantasy sports. *Social Currents, 3*(3), 256-272.

Kissane, R. J., & Winslow, S. (2016b). 'You're underestimating me and you shouldn't':

    Women's agency in fantasy sports. *Gender & Society, 30*(5), 819-841.

Klassen, T. P., Jahad, A. R., & Moher, D. (1998). Guides for reading and interpreting

    systematic reviews. *Archives of Pediatric Adolescent Medicine, 152*, 700-704.

Kwak, D. H., Lee, J. S., & Mahan, J. E. (2013). Ad-evoked illusory judgments in fantasy

    sports participation: Effects of customization level and expert information. *Journal of*

    Sport Management, 27(5), 393-406.

Kwak, D. H., Lim, C. H., Lee, W. Y., & Mahan, J. E. (2010). How confident are you to win

    your fantasy league: Exploring the antecedents and consequences of winning expectancy.

    Journal of Sport Management, 24(4), 416-433.

Kwak, D. H., & McDaniel, S. R. (2011). Using an extended Technology Acceptance Model

    in exploring antecedents to adopting fantasy sports league websites. *International Journal*

    of Sports Marketing & Sponsorship, 12(3), 240-253.

Larkin, B. (2015). An examination of fantasy sport participation motives and substitution

    versus attendance intention. *Sport Marketing Quarterly, 24*(2), 120-133.

Larkin, B. A., & Fink, J. S. (2016). Fantasy sport, FoMO, and traditional fandom: How

    second-screen use of social media allows fans to accommodate multiple identities. *Journal*

    of Sport Management, 30(6), 643-655.

Lee, J., Ruihley, B. J., Brown, N., & Billings, A. C. (2013). The effects of fantasy football

    participation on team identification, team loyalty and NFL fandom. *Journal of Sports*

    Media, 8(1), 207-227. doi: 10.1353/jsm.2013.0008

Lee, S., Seo, W. J., & Green, B. C. (2013). Understanding why people play fantasy sport:

    Development of the Fantasy Sport Motivation Inventory (FanSMI). *European Sport*

    Management Quarterly, 13(2), 166-199. http://dx.doi.org/10.1080/16184742.2012.752855

Lee, W.-Y., Kwak, D., Lim, C., Pedersen, P., & Miloch, K. (2011). Effects of personality and

gender on fantasy sports game participation: The moderating role of perceived knowledge.

Journal of Gambling Studies, 27(3), 427-441. doi: 10.1007/s10899-010-9218-9

Littler, D. (1998). Editorial: Perspectives on consumer behaviour. *Journal of Marketing

Management, 14*(1-3), 1-2.

Love, A., & Andrew, D. P. (2012). The intersection of sport management and sociology of

sport research: A social network perspective. *Sport Management Review, 15*(2), 244-256.

MacInnis, D. J., & Folkes, V. S. (2010). The disciplinary status of consumer behavior: A

sociology of science perspective on key controversies. *Journal of Consumer Research,

36*(6), 899-914. http://dx.doi.org/10.1086/644610

Mahan, J. E., Drayer, J., & Sparvero, E. (2012). Gambling and fantasy: An examination of

the influence of money on fan attitudes and behaviors. *Sport Marketing Quarterly, 21*(3),

159-169.

Marchica, L., & Derevensky, J. (2016). Fantasy sports: A growing concern among college

student-athletes. *International Journal of Mental Health and Addiction, 14*(5), 635-645.

Martin, R. J., & Nelson, S. (2014). Fantasy sports, real money: Exploration of the relationship

between fantasy sports participation and gambling-related problems. *Addictive Behaviors,

39*(10), 1377-1382.

Martin, R. J., Nelson, S. E., & Gallucci, A. R. (2016). Game on: Past year gambling,

gambling-related problems, and fantasy sports gambling among college athletes and non-

athletes. *Journal of Gambling Studies, 32*(2), 567-579.

Mills, B. M., Kwak, D. H., Lee, J. S., & Lee, W.-Y. (2014). Competitive environments in

fantasy sports gaming: Effects of entry fees and rewards on opposition quality and league

sorting. *International Gambling Studies, 14*(1), 161-180.

Nesbit, T. M., & King, K. A. (2010a). The impact of fantasy football participation on NFL attendance. *Atlantic Economic Journal, 38*(1), 95-108. doi: 10.1007/s11293-009-9202-x

Nesbit, T. M., & King, K. A. (2010b). The impact of fantasy sports on television viewership. *Journal of Media Economics, 23*(1), 24-41. doi: 10.1080/08997761003590721

Nesbit, T. M., & King-Adzima, K. A. (2012). Major League Baseball attendance and the role of fantasy baseball. *Journal of Sports Economics, 13*(5), 494-514. doi: 10.1177/1527002511409120

Noblit, G. W., & Hare, R. D. (1988). *Meta-ethnography: Synthesising qualitative studies*. London: Sage.

Nordenstreng, K. (1970). Comments on "gratifications research" in broadcasting. *Public Opinion Quarterly*, 130-132.

Oates, T. P. (2009). New media and the repackaging of NFL fandom. *Sociology of Sport Journal, 26*(1), 31-49.

Pickering, D., Blaszczynski, A., Hartmann, M., & Keen, B. (2016). Fantasy sports: Skill, gambling, or are these irrelevant issues? *Current Addiction Reports, 3*(3), 307-313.

Price, J. L. (1990). From the diamond to the mind: Transformations of play in fantasy baseball. *Play & Culture, 3*(1), 18-31.

Randle, Q., & Nyland, R. (2008). Participation in internet fantasy sports leagues and mass media use. *Journal of Website Promotion, 3*(3/4), 143-152. doi: 10.1080/15533610802077180

Roy, D. P., & Goss, B. D. (2007). A conceptual framework of influences on fantasy sports consumption. *Marketing Management Journal, 17*(2), 96-108.

Ruggiero, T. E. (2000). Uses and gratifications theory in the 21st century. *Mass Communication & Society*, *3*(1), 3-37. doi: 10.1207/S15327825MCS0301_02

Ruihley, B. J., & Billings, A. C. (2013). Infiltrating the boys' club: Motivations for women's fantasy sport participation. *International Review for the Sociology of Sport, 48*(4), 435-452. doi: 10.1177/1012690212443440

Ruihley, B. J., Billings, A. C., & Rae, C. (2014). As time goes by: Deciphering the fantasy sport playing teenager. *Sport Marketing Quarterly, 23*(4), 187-197.

Ruihley, B. J., & Hardin, R. L. (2013). Meeting the informational needs of the fantasy sport user. *Journal of Sports Media, 8*(2), 53-80. doi: 10.1353/jsm.2013.0013

Ruihley, B. J., & Hardin, R. L. (2011a). Beyond touchdowns, homeruns, and three–pointers: an examination of fantasy sport participation motivation. *International Journal of Sport Management and Marketing, 10*(3), 232-256. doi: 10.1504/IJSMM.2011.044792

Ruihley, B. J., & Hardin, R. L. (2011b). Message boards and the fantasy sport experience. *International Journal of Sport Communication, 4*(2), 233-252.

Schirato, T. (2012). Fantasy sport and media interactivity. *Sport in Society, 15*(1), 78-87. doi: 10.1080/03031853.2011.625278

Shapiro, S. L., Drayer, J., & Dwyer, B. (2014). Exploring fantasy baseball consumer behavior: Examining the relationship between identification, fantasy participation, and consumption. *Journal of Sport Behavior, 37*(1), 77-93.

Smith, A. A., Synowka, D. P., & Smith, A. D. (2010). Exploring fantasy sports and its fan base from a CRM perspective. *International Journal of Business Innovation and Research, 4*(1), 103-142. doi: 10.1504/IJBIR.2010.029543

Smith, B., Sharma, P., & Hooper, P. (2006). Decision making in online fantasy sports communities. *Interactive Technology and Smart Education, 3*(4), 347-360. http://dx.doi.org/10.1108/17415650680000072

Suh, Y. I., Lim, C., Kwak, D. H., & Pedersen, P. M. (2010). Examining the psychological factors associated with involvement in fantasy sports: An analysis of participants'

motivations and constraints. *International Journal of Sport Management Recreation & Tourism, 5*, 1-28. doi: 10.5199/ijsmart-1791-874X-5a

Suh, Y. I., & Pedersen, P. M. (2010). Participants' service quality perceptions of fantasy sports websites: The relationship between service quality, customer satisfaction, attitude, and actual usage. *Sport Marketing Quarterly, 19*(2), 78-87.

Weed, M. E. (2005). Research synthesis in sport management: Dealing with 'chaos in the brickyard'. *European Sport Management Quarterly*, *5*(1), 77-90. doi: 10.1080/16184740500089763

Weed, M. E. (2006). Sports tourism research 2000–2004: A systematic review of knowledge and a meta-evaluation of methods. *Journal of Sport & Tourism*, *11*(1), 5-30. doi: 10.1080/14775080600985150

Weiss, S. M., Demski, R. M., & Backen, G. J. (2011). Fantasy baseball: A new way to gamble or just another game? *Journal of Gambling Issues, 26*, 126-145. http://dx.doi.org/10.4309/jgi.2011.26.9

White, R., & Cheung, M. (2015). Communication of fantasy sports: A comparative study of user-generated content by professional and amateur writers. *Ieee Transactions on Professional Communication, 58*(2), 192-207.

Table 1. Authors involved with three or more articles

Author	Number of articles
B. Dwyer	13
J. Drayer; B. Ruihley	8
D. Kwak	6
A. Billings	5
S. Shapiro	4
R. Hardin; K. King-Adzima (née King); W. Lee; C. Lim; J. Mahan; R. Martin; T. Nesbit; P. Pedersen	3

Table 2. Main topics and outcomes of fantasy sport research

Main topic	Studies	Main outcomes
The relationship between fantasy sport participation and professional sport consumption	Randle and Nyland (2008) Drayer, Shapiro, Dwyer, Morse and White (2010) Dwyer and Drayer (2010) Nesbit and King (2010a) Nesbit and King (2010b) Dwyer (2011a) Dwyer (2011b) Fortunato (2011) Karg and McDonald (2011) Mahan, Drayer and Sparvero (2012) Nesbit and King-Adzima (2012) Dwyer (2013) Dwyer and LeCrom (2013) Dwyer, Drayer, Greenhalgh and Lecrom (2013)	• Drayer et al. (2010) developed the first framework for understanding the relationship between attitudes and behaviours concerning fantasy sport participation and professional sport consumption. This suggested that 'the combination of fantasy team perceptions and favorite team perceptions created a new definition of the NFL. An individual's "NFL experience" changed from an individual team focus to a league-wide focus.' (p. 138) • Subsequent studies (Dwyer & Drayer, 2010; Dwyer & Lecrom, 2013; Karg & McDonald, 2011) provided empirical support for, and refined, this framework. • Other empirical studies have indicated positive relationships between fantasy sport participation and televised professional sport consumption and live game attendance (e.g., Nesbit & King, 2010a; b; Nesbit & King-Adzima, 2012). • More recent studies have refined understanding of the relationship between fantasy sport participation and professional sport consumption by exploring the effect of other factors, e.g., identification (Shapiro et al., 2014) and 'fear of missing out' (Larkin & Fink, 2016). • The current consensus is that fantasy sport participation does not diminish and can, in fact, augment overall consumption of professional sport. However, participation can *alter* traditional ways of consuming professional sport and can, in some cases, diminish team

	Lee, Ruihley, Brown and Billings (2013)	loyalty.
	Shapiro, Drayer and Dwyer (2014)	
	Goldsmith and Walker (2015)	
	Larkin (2015)	
	Dwyer, Achen and Lupinek (2016)	
	Larkin and Fink (2016)	
The motives of fantasy sport participants	Farquhar and Meeds (2007)	• In the earliest study, Farquhar and Meeds (2007) identified five primary motives: (1) Entertainment; (2) Escape; (3) Social Interaction; (4) Surveillance; and (5) Arousal.
	Roy and Goss (2007)	
	Suh, Lim, Kwak and Pedersen (2010)	
	Dwyer and Kim (2011)	• Subsequent studies largely supported these findings, while identifying additional motives and suggesting differing combinations of motives.
	Dwyer, Shapiro and Drayer (2011)	
	Ruihley and Hardin (2011a)	• Early studies drew primarily on motives associated with sport spectatorship, whereas later studies have also drawn on motives associated with online sport consumption, gambling, sport video gaming and participation.
	Brown, Billings and Ruihley (2012)	
	Ballouli, Hutchinson, Cattani and Reese (2013)	• In the most comprehensive treatment to date, Lee, Seo and Green (2013a) developed the Fantasy Sport Motivation Inventory, which included the following 12 motives: (1) Game interest; (2) Becoming a general manager/head coach; (3) Love for the sport; (4) Prize; (5) Competition; (6) Entertainment value; (7) Bonding with friends or family; (8) Social interaction with other fantasy players; (9) Knowledge application; (10) Hedonic experience; (11) Escape; and (12) Substitute for a losing team.
	Billings and Ruihley (2013)	
	Dhurup and Dlodlo (2013)	
	Dlodlo and Dhurup (2013)	
	Lee, Seo and Green (2013)	

	Ruihley, Billings and Rae (2014)	
Other aspects of fantasy sport consumer behaviour	Kwak, Lim, Lee and Mahan (2010)	• Individual studies have examined specific aspects of fantasy sport consumption.
	Smith, Synowka and Smith (2010)	• Prominent examples include:
	Suh and Pedersen (2010)	o Kwak et al. (2010) found that perceived football knowledge, perceived ease of use and enjoyment influenced winning expectancy, which, in turn, influenced time and money spent.
	Kwak and McDaniel (2011)	
	Lee, Kwak, Lim, Pedersen and Miloch (2011)	
	Ruihley and Hardin (2011b)	o Drayer et al. (2013) found that participants who played for money were more motivated by social benefits than the opportunity to win money and exhibited a higher level of team-related consumption.
	Drayer and Dwyer (2013)	
	Drayer, Dwyer and Shapiro (2013)	o Ruihley and Hardin (2013) found that many fantasy sport websites were not meeting the informational needs of participants.
	Kwak, Lee and Mahan (2013)	
	Ruihley and Billings (2013)	• These studies do not constitute a clear group as such. However, they have expanded the focus on fantasy sport consumer behaviour beyond motivation and the relationship with professional sport consumption.
	Ruihley and Hardin (2013)	
	Ibrahim (2014)	
	Mills, Kwak, Lee and Lee (2014)	
	Ditzio (2016)	
Individuals' experiences of participating in	Kaplan (1990)	• Individual studies have directly focused on the way participants *experience* participation.
	Davis and Duncan (2006)	• The primary theme that emerged was gender relations:
	Halverson and Halverson (2008)	o Davis and Duncan (2006, p. 244) found that 'fantasy sports reinforce hegemonic

fantasy sport	Howie and Campbell (2015)	ideologies in sport spectatorship, emphasizing authority, sports knowledge, competition, male-bonding, and traditional gender roles'.
	Kissane and Winslow (2016a)	o Kissane and Winslow (2016a) found similar experiences, with male participants more likely to report bonding through highly-masculinised bragging and 'smack talk'.
	Kissane and Winslow (2016b)	• The secondary theme was the 'mode' of competition:
		o Halverson and Halverson (2008) found that participants experienced fantasy sport as 'competitive fandom', in which 'knowledge acquired in the fan domain is transformed into strategic information to guide play in a new kind of game' (p. 286).
The gambling-related aspects of fantasy sport	Bernhard and Eade (2005)	• There is an ongoing debate in the literature concerning the extent to which fantasy sport should be understood as gambling.
	Weiss, Demski and Backen (2011)	• In the earliest study, Bernhard and Eade (2005) found that fantasy sport had elements of a 'gambling culture', although there were few signs of pathology in participants.
	Martin and Nelson (2014)	
	Marchica and Derevensky (2016)	• Weiss et al. (2011) found that, based on perceptions of 'skill-to-chance' ratios, fantasy sport should not be considered gambling.
	Martin, Nelson and Gallucci (2016)	
	Pickering, Blaszczynski, Hartmann and Keen (2016)	• However, recent studies (Martin & Nelson, 2014; Martin et al., 2016) found that certain groups of participants among college-age students experienced gambling-related problems.
The nature of fantasy sport as a novel phenomenon	Price (1990)	• Individual studies sought to conceptualise the nature of fantasy sport.
	Oates (2009)	o In the earliest study, Price (1990) conceptualised it as 'third level of play', involving 'masking' and 'role playing'.
	Burr-Miller (2011)	

	Schirato (2012)	o Later, Oates (2009) conceptualised it as a form of 'vicarious management', in which participants identify primarily with the institutional regimes of the sport, rather than individual athletes.
		• There is no consensus from these studies concerning how fantasy sport should be conceptualised. However, the majority emphasise media interactivity and suggest that fantasy sport represents a transformation of traditional ways of engaging with sport, constituting a 'novel phenomenon'.
Other, specific aspects of fantasy sport	Hiltner and Walker (1996) Smith, Sharma and Hooper (2006) Aikin (2013) Carlson (2013) Brock, Assemi, Corelli, El-Ibiary, Kavookjian, Martin and Hudmon (2014) White and Cheung (2015)	• Individual studies have explored specific aspects of fantasy sport participation beyond consumption. For example: o Smith et al. (2006) studied decision-making and found that 'players rely on informal, domain-specific heuristics that often lead to the creation of competitive teams' (p. 347) o Aikin (2013) analysed the ethics of sport spectatorship and argued that fantasy sport participation 'occasions a peculiar kind of failure of sports spectatorship' (p. 195).

Table 3. Conceptualisations and theoretical frameworks

| Author(s) | Year | Conceptualisation | | Focus | Theoretical framework | | |
		Consumer behaviour	Other		Clearly articulated framework	Quasi-theoretical (concept(s) discussed)	No clear framework
Kaplan	1990		✓	The nature of fantasy baseball and the attitudes and behaviours of participants			✓
Price	1990		✓	The nature of play within fantasy baseball and participants' construction of meaning		'Meaningful play'	
Hiltner and Walker	1996		✓	Fantasy sport message-board behaviour			✓
Bernhard and Eade	2005		✓	The nature of fantasy sport and its links with gambling		'Activity-related social worlds'	
Davis and Duncan	2006		✓	The experiences of participants, with a focus on hegemonic masculinity		'Hegemonic masculinity'	
Smith et al.	2006		✓	Decision making in fantasy sport		'Decision-making model'	
Farquhar	2007	✓		The motives of fantasy sport participants	'Uses and		

and Meeds					'gratifications'		
Roy and Goss	2007	✓		The influences on fantasy sport consumption	'Influences on consumption'		
Halverson and Halverson	2008		✓	The nature of fantasy sport, with a focus on 'competitive fandom'	'Competitive fandom'		
Randle and Nyland	2008	✓		The relationship between fantasy sport participation and mass media use	'Role-playing'		
Baerg	2009		✓	Review of fantasy sport literature and research agenda			✓
Oates	2009		✓	The concept of 'vicarious management' and the role of fantasy sport within it		'Vicarious management'	
Drayer et al.	2010	✓		Attitudes and behaviours relating to fantasy sport and professional sport consumption	'Attitude-behaviour relationship'		
Dwyer and Drayer	2010	✓		The different modes of sport consumption exhibited by fantasy sport participants	'Attitude-behaviour relationship'		
Kwak et al.	2010	✓		The role of winning expectancy in a fantasy sport consumption context	'Illusion of control'		
Nesbit and	2010a	✓		The relationship between fantasy sport and			✓

Author	Year			Focus	Framework		
King				televised professional sport consumption			
Nesbit and King	2010b	✓		The relationship between fantasy sport and live professional sport consumption			✓
Smith et al.	2010	✓		Customer relationship management in a fantasy sport context	'Theory of reasoned action'		
Suh and Pedersen	2010	✓		The impact of perceived service quality of fantasy sport websites on attitudes and behaviours	'Service quality model'		
Suh, et al.	2010	✓		How participants' motives and constraints influence attitudes toward participation	'Uses and gratifications'		
Burr-Miller	2011		✓	The nature of fantasy baseball in the context of mediated fandom and online behaviour		'Equipment for living'	
Dwyer	2011a	✓		The relationship between fantasy sport participation and traditional NFL fan loyalty		'Consumer loyalty and involvement'	
Dwyer	2011b	✓		The relationship between fantasy sport and televised professional sport consumption	'Attitude-behaviour relationship'		
Dwyer and Kim	2011	✓		The motives of fantasy football participation and scale development	'Uses and gratifications'		
Dwyer et al.	2011	✓		The motives of fantasy baseball and a	'Uses and		

			motive-based taxonomy	gratifications'		
Fortunato	2011	✓	The relationship between fantasy sport participation and consumption of professional sport on TV			✓
Hill and Woo	2011	✓	Communication-based research agenda for fantasy sport			✓
Karg and McDonald	2011	✓	Attitudes and behaviours relating to fantasy sport and professional sport consumption	'Attitude-behaviour relationship'		
Kwak and McDaniel	2011	✓	The antecedents to fantasy sport consumption	'Theory of reasoned action'		
Lee et al.	2011	✓	The impact of gender, sensation seeking, locus of control and need for cognition on participation		'Model of involvement'	
Ruihley and Hardin	2011a	✓	The motives of fantasy sport participants	'Uses and gratifications'		
Ruihley and Hardin	2011b	✓	Message board behaviour, in the context of fantasy sport consumption	'Uses and gratifications'		
Weiss et al.	2011		✓	The gambling-related nature of fantasy sport participation			✓

Author	Year			Focus			
Brown et al.	2012	✓		The motives and media consumption habits of fantasy sport participants			✓
Mahan et al.	2012	✓		The relationship between participation, sports betting and sport-related spending			✓
Nesbit and King-Adzima	2012	✓		The relationship between fantasy baseball participation and live baseball game attendance			✓
Schirato	2012		✓	The nature of fantasy sport in the context of media interactivity		'Play-as-escape'	
Aikin	2013		✓	The ethics of sport spectatorship, with a focus on the role of fantasy sport	'Ethical sports spectatorship'		
Ballouli et al.	2013	✓		The motives of fantasy football participants			✓
Billings and Ruihley	2013	✓		The differing motivations of traditional sport fans and fantasy sport fans		'Entertainment theory'	
Carlson	2013		✓	The metaphysics and ethics of fantasy sports		'Meaningful play'	
Dhurup and Dlodlo	2013	✓		The motives of participants, attitudes towards usage and future behavioural intentions		'Motivation theory'	
Dlodlo and Dhurup	2013	✓		The motives of participants and gender-based differences		'Motivation theory'	

Drayer and Dwyer	2013	✓	The constraints that explain the low participation rate of Blacks in fantasy sport	'Hierarchical leisure constraint'
Drayer et al.	2013	✓	The impact of league entry fees on the attitudes and behaviours of fantasy sport participants	'Attitude-behaviour relationship'
Dwyer	2013	✓	Attitudes and behaviours relating to fantasy sport and favourite professional team outcomes	'Attitude-behaviour relationship'
Dwyer and LeCrom	2013	✓	Attitudes and behaviours relating to fantasy sport and professional sport consumption on TV	'Attitude-behaviour relationship'
Dwyer et al.	2013	✓	The influence of fantasy football-related media consumption on favourite team attitudes and behaviours	'Theory of reasoned action'
Kwak et al.	2013	✓	The influence of advertising on fantasy sport participants' judgements and decisions to participate	'Illusion of control'
Lee, Ruihley et al.	2013	✓	The relationship between fantasy football and team identification, team loyalty and fandom	'Motivation theory'

of the NFL

Author	Year			Title			
Lee, Seo and Green	2013	✓		The motives of fantasy sport participants and development of a motive-based scale		'Motivation theory'	
Ruihley and Billings	2013	✓		Gender differences in fantasy sport consumption		'Motivation theory'	
Ruihley and Hardin	2013	✓		Fantasy sport websites and the informational needs of participants	'Uses and gratifications'		
Brock et al.	2014		✓	The impact of fantasy football participation on faculty development			✓
Ibrahim	2014	✓		The antecedents to individual adoption of fantasy sport websites	'Theory of reasoned action'		
Martin and Nelson	2014		✓	The relationship between participation and gambling-related problems among college students			✓
Mills et al.	2014	✓		The influence of financial information, perceived skill levels and expected outcomes on participation		'Winning expectancy'	
Ruihley et al.	2014	✓		The demographics, habits, consumption, and motivations of younger fantasy sport		'Motivation theory'	

participants

Shapiro et al.	2014	✓		Identification among fantasy sport participants, relating to professional sport consumption		'Identification and points of attachment'	
Goldsmith and Walker	2015	✓		The influence of fantasy sport participation on the attitudes and behaviours of non-fans of NASCAR		'Involvement-commitment-loyalty'	
Howie and Campbell	2015		✓	The experiences of fantasy basketball participants and their wives and partners		'Hegemonic masculinity'	
Larkin	2015	✓		The influence of explicit and implicit motives on participants' sport consumption behaviour	'Cognitive evaluation theory'		
White and Cheung	2015		✓	The discourse strategies of professional journalists and amateur writers in fantasy sport articles		'Genre theory'	
Ditzio	2016	✓		The marketing implications of fantasy sport participation			✓
Dwyer et al.	2016	✓		How 'basking in reflected glory' and 'cutting off reflected failure' differs between participants	'Attitude-behaviour relationship'		

Author	Year			Description			
Kissane and Winslow	2016a		✓	The influence of participation on players' perceptions of their relationships with others		'Hegemonic masculinity'	
Kissane and Winslow	2016b		✓	Women's experiences of fantasy sport participation, with a focus on gender relations		'Hegemonic masculinity'	
Larkin and Fink	2016	✓		The relationship between participation and team loyalty, focusing on 'fear of missing out'	'Identity-based framework'		
Marchica and Derevensky	2016		✓	The relationship between participation and gambling and problems among student-athletes			✓
Martin et al.	2016		✓	Fantasy sport-related gambling among college athletes and non-athletes			✓
Pickering et al.	2016		✓	The gambling-related aspects of fantasy sport and its potential to promote over-use			✓
		48	23		29	24	18

Table 4. Theoretical frameworks

Theoretical		Quasi-theoretical		Atheoretical
Cognitive/behavioural		**Cognitive/behavioural**		
'Attitude-behaviour relationship'	8	'Motivation theory'	6	
'Uses and gratifications'	7	'Loyalty/involvement'	2	
'Theory of reasoned action'	4	'Decision-making'	1	
'Illusion of control'	2	'Entertainment theory'	1	
'Cognitive evaluation theory'	1	'Identification/consumption'	1	
'Hierarchical leisure constraint'	1	'Winning expectancy'	1	
'Identity-based framework'	1			
'Influences on consumption'	1	**Other**		
'Involvement-commitment-loyalty'	1	'Hegemonic masculinity'	4	
'Service quality model'	1	'Meaningful play'	2	
		'Activity-related social worlds'	1	

Other		'Equipment for living'	1	
'Competitive fandom'	1	'Genre theory'	1	
'Ethical sports spectatorship'	1	'Play-as-escape'	1	
		'Role playing'	1	
		'Vicarious management'	1	
	29		**24**	**18**

Table 5. Type of data used

	Primary	Secondary	Both	Total
Quantitative (only)	36	3	1	40
Qualitative (only)	14	1	0	15
Mixed	8	2	0	10
Total	58	6	1	65

Table 6. Details of studies using primary data

	Studies (or parts of studies) using quantitative data	Studies (or parts of studies) using qualitative data	Total		Studies (or parts of studies) using quantitative data	Studies (or parts of studies) using qualitative data	Total
Main research approach				**Sample type**			
Survey	40	1	41	Convenience	31	7	38
Grounded theory/narrative	0	14	14	Purposive	14	7	21
Experiment	3	0	3	Snowball	7	4	11
Discourse analysis	0	3	3	Random	10	0	10
Ethnography	0	3	3	Not reported	3	3	6
Q Methodology	1	0	1				
Case study	0	1	1	**Sample size**			
				Less than 10	0	2	2
Method of data collection				10-99	2	10	12
Questionnaire	40	2	42	100-299	23	2	25
Interviews	4	8	12	300 or more	21	1	22

Documents	0	6	6
Observation	0	6	6
Focus groups	0	5	5
Journals	0	1	1
Statement sorting	1	0	1
Method of data analysis			
Factor analysis	15	0	15
Analysis of variance	15	0	15
Regression	14	0	14
Content analysis	0	11	12
Thematic analysis	0	10	10
Structural equation modelling	5	0	5
T-tests	5	0	5
Chi-square	1	0	1
Descriptive statistics	1	0	1
Correlation	1	0	1

Not reported	3	3	6
Response rate			
Less than 10%	3	-	3
10-19%	7	-	7
20% or more	15	-	15
Not reported	25	-	25
Demographics			
Many reported	31	3	34
Few reported	16	11	27
None reported	3	4	7
Population			
College students	12	2	14
Specific website users	10	4	14
FSTA members	5	0	5

Not reported	0	1	1	Personal contacts	1	4	5
				General/unclear	17	12	28

Note: Some studies used more than one method of data collection and/or analysis and/or sample type.

Table 7. Framework for future research on fantasy sport participation

Research question	Research focus	Research approaches
Micro-level		
How do participants *experience* fantasy sport participation?	Individuals' in-depth experiences of fantasy sport participation (beyond the 'consumer role')	In-depth interviews; narrative analysis; auto-phenomenography; direct observation; discourse analysis (of communications)
How does fantasy sport participation influence participants' *everyday lives*?	Critical reflection on the role of participation in fantasy sport within individuals' everyday lives	In-depth interviews; narrative analysis; auto-phenomenography
Why do people play (different) fantasy sports (in different countries)?	Further testing and refinement of motivational scales and consumer segments in different sports and different countries	Survey-based approaches, using large, representative samples, and further use of related methodologies (e.g., Q Methodology)
How and why do participants' motivations and experiences *change* over time?	Longitudinal tracking of consumers' motives, levels of engagement and experiences	Analysis of time-series data; regular, repeated questionnaires; repeated interviews
How is fantasy sport participation reshaping *professional sport consumption*?	Further refinement of existing work on the relationship between fantasy sport and professional sport consumption	Econometric analysis; survey-based approaches, using large, representative samples; in-depth interviews; direct observation
How and why do particular *management and marketing strategies* influence fantasy sport	The effects of particular marketing and management strategies	Experimental approaches, using questionnaires and observational methods

participation?

Meso-level

How do fantasy sport *sub-cultures* operate and how does this influence participation?	Group culture within fantasy sport leagues and other online fantasy sport communities	Online and offline ethnography; discourse/content analysis of group communications; interviews; focus groups
How does fantasy sport shape *social interaction*?	Social interaction and inter-personal ties within fantasy sport	Social network analysis; online and offline ethnography; discourse/content analysis of communications
How does fantasy sport shape the interaction between people's *online and offline identities*?	The relationship between online and offline groups and communities	Online and offline ethnography; in-depth interviews; focus groups; discourse analysis

Macro-level

What is the *value* of the fantasy sport industry?	The economic value of the fantasy sport industry and its influence on other parts of the wider sport industry	Econometric analysis of secondary data
How does the *political economy* of the fantasy sport industry function?	Critical analysis of the ownership structures and the positioning of fantasy sport within larger corporate and global flows of capital, including in the existing professional sport and media complex	Econometric analysis of secondary data; in-depth interviews; multi-site ethnography
How does fantasy sport reproduce, or challenge,	Critical analysis of the social structural impacts of	Discourse analysis; in-depth interviews;

wider *social structures*?

fantasy sport participation (e.g., on class, gender   ethnography

and race)

[i] We did not consider pre-publication online versions in this search. Previous systematic reviews are split on whether or not to include such articles. We decided not to and mention this here to aid replicability.

[ii] In only including articles that focused *directly on academic analysis of fantasy sport*, we excluded articles that primarily analysed forms of mediated sport communication, such as sport blogs and fan websites, because, although they incorporated some discussion of fantasy sport, they did not focus directly on it as the principal subject of analysis. In addition, we excluded articles focusing on the educational uses of fantasy sport and articles published in law journals, focusing on specific legal aspects of fantasy sport.

[iii] We split this category broadly into: (i) 'consumer behaviour' and (ii) 'other'. While finer distinctions could have been made, this categorisation represented the main 'split' in the literature and provided the most useful framework for discussion.

[iv] In some articles, the author(s) explicitly stated their theoretical framework, provided a detailed explanation of the framework and used it clearly to inform data collection and/or analysis and/or discussion. For example, Dwyer (2013) explicitly drew on the 'attitude-behaviour relationship framework' in his survey-based study of fantasy sport participants' attitudes and behaviour toward the National Football League (NFL). In others, the author(s) explicitly developed a theoretical framework *through* their analysis and clearly articulated this framework. For example, Halverson and Halverson (2008) drew on a multiple case study of three fantasy sport leagues to develop a framework of 'competitive fandom'. In other articles, authors often discussed some relevant theory, or concepts, but did not articulate a clear theoretical framework. We categorised these as quasi-theoretical.

[v] In examining samples, we assigned articles to the following categories: (i) Random; (ii) Purposive; (iii) Convenience; (iv) Snowball. As sampling terminology is not consistent across studies, we sought to establish as clear criteria as possible. We categorised studies as 'random' when they employed a specific random sample from a larger pool. For example, Dwyer (2011a) used a random sample of 1,600 from a pool of 5,000 randomly selected Fantasy Sport Trade Association member participants. We categorised studies as 'purposive' when they deliberately targeted participants. For example, Billings and Ruihley (2013) used trained recruiters to contact, through interpersonal means, 'adult traditional sport consumers (that had not played fantasy sport in the last 12 months)' and 'adult fantasy sport consumers'. We categorised studies as 'convenience' when they either surveyed students, or posted links to surveys on websites or message-boards. Where studies used a combination of purposive and convenience sampling with snowball sampling, they were categorised accordingly.

[vi] It is difficult to make direct comparisons about authorship across systematic reviews. However, Weed (2006), in his systematic review of sports tourism research, found only five authors that had been involved with three or more articles, across a total of 80 articles, compared to 14 authors here, across a total of 71 articles. This suggests a much higher concentration of authorship in fantasy sport than in sports tourism, something that might well be expected for a comparatively new research area.

[vii] It is worth noting here, as discussed earlier, that this high incidence is due, in part, to the work of a sub-set of authors in the field. For example, one author wrote, or co-wrote seven of the eight articles using the AB-R framework. In addition, five of the seven articles using the U&G framework involved three authors.

[viii] These findings are not unusual for a meta-evaluation on a social science topic, especially when a large proportion of that literature falls within the discipline of management/marketing. For example, while Weed's (2006) meta-evaluation of sports tourism research found a slightly lower proportion of studies using primary data (68 per cent, compared to 85 per cent here), the proportion of studies using quantitative data was very similar (67 per cent, compared to 62 per cent here).

[ix] We would particularly like to thank one of the anonymous reviewers for this suggestion.