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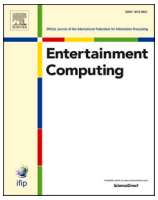

The revised model for initial and continued involvement in fantasy football

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ABSTRACT

Fantasy football (FF) is an online game that plays an increasingly central role in fan engagement with the sport. Wilkins et al.'s [45] Model for Initial and Continued Involvement in Fantasy Football (MICIFF) proposed several possible motivations for FF participation. The present study examined the validity of this model whilst also exploring potential age-related differences in perspectives. Integrative content analysis of qualitative responses from 698 FF players revealed support (i.e., >8% coverage) for 12 of the 15 factors in the model, with 'mimics real football' (45.7 % coverage) and 'maintaining friendships' (44.8 %) most frequently cited. No evidence was found for two factors, whilst amendments were made to another factor. Two new factors emerged from the analysis. Chi-square tests identified significant differences between younger and older adults in five factors. These changes are reflected in a revised MICIFF. The findings enhance our understanding of why individuals participate in FF and have implications for both players and stakeholders in the game.

1. Introduction

Fantasy football ('soccer' in some parts of the world) is a type of online computer-based strategy game in which participants assemble virtual teams composed of real-life football players and compete against each other based on the statistical performance of those players in actual football games. The game is typically played over the course of a season, with participants drafting their teams prior to the start of the season and making roster changes and trades throughout the year. The game runs in parallel with the live season, adding a layer of strategy as participants are rewarded for decisions that anticipate or reflect real-world football outcomes such as team and player form, injuries, and managerial decisions. In some versions of FF, additional features are incorporated to enhance the gamification and strategic elements of the experience. For example, in Fantasy Premier League (FPL) – the official game of the English Premier League – participants can use a 'bench boost' once per season, which adds the points of their benched players to their total score for one week.

Most major football leagues around the world have their own version of the game, though FPL is considered the most popular, with around 11 million people playing worldwide during the 2022–23 season[34]. The popularity of FF is reflected in its strong presence on social media, where influencers and communities have emerged, fostering interaction and engagement around the game. This growing social media activity has further amplified FF's influence, creating an ecosystem where users not only engage with the game but also with the sport itself on a deeper level. Thus, FF, and fantasy sports (FS) more generally, have become an increasingly important mechanism by which a league can advertise their sport and increase their audience's consumption and engagement with the sport[21]. Indeed, in American sports, it is common for television and radio shows to dedicate whole segments to discussing the fantasy implications of real-world sporting events[23].

Research exploring FS is scarce, with existing literature tending to focus on American football or FS as a general entity. Most publications have explored the relationship between FS participation and sports consumption, or the impact of FS on the gambling industry and legal regulations[43]. Of relevance to the present study, however, is the experiences of FS (specifically football) participants, with particular reference to psychosocial and behavioral factors.

The first studies published in this area were by Dlodlo and Dhurup [11] and Dhurup and Dlodlo [10]. Using the same sample of 193 students from a South African university, both studies adopted a questionnaire approach with scales and items either amended to address fantasy football (FF), or specifically developed to address FF. In the work

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by Dlodlo and Dhurup [11], factor analysis identified five motivations behind FF participation: eustress (the desirable stress-like symptoms such as physical arousal), achievement (the tangible rewards on offer in the game), aesthetics (the recognition of the game as a work of art, largely due to the qualities of the sport on which it is based), enjoyment (the intrinsic amusement and entertainment of the game), and ease of use (the simplicity of learning to play and participate in the game). Correlation analyses in the adjacent paper by Dhurup and Dlodlo [10] showed that these five factors had significant, moderate-to-strong relationships with one's attitudes towards the game, whilst a regression analysis found that the factors explained 51 % of the variance in one's intentions to participate in the game.

One reason not identified by Dlodlo and Dhurup, but which appears regularly in other studies of motivations for FS participation[40], is that of escapism. Indeed, Dastidar and Roy [9] explicitly examined this factor within the context of FF gameplay during the COVID-19 pandemic; that is, the extent to which FF acts as an effective distraction during the pandemic. The results showed that FF was used as a form of escape for most participants, and that the extent of this escapism was greater for individuals who were more competitive and who had higher levels of engagement with the game.

These findings, specific to FF, are corroborated by similar research carried out across other sports, or FS more generally. For instance, early work by Farquhar and Meeds [16] identified five types of FS players which were characterized by the importance given to factors such as entertainment, escape, arousal, social interaction, and surveillance (i.e., "information gathering, working with statistics, and staying in touch with real-world sports", pp. 1212). Competition, entertainment/escapism, and social interaction were identified in Dwyer and Kim's [12] study of fantasy American football participants, whilst the same motivations plus that of gambling were reported in Dwyer et al.'s [14] study of fantasy baseball participants. Martin et al. [26] conducted a systematic review of motivations for FS participation and from the 21 publications identified, found that entertainment, competition, social interaction, and arousal were the four most often reported motivations, with escapism, rewards, vicarious involvement, self-esteem, surveillance, knowledge utilization, and love of sport also featuring regularly. In terms of impact on wellbeing, surprisingly few studies have examined this outside of FF, with the only ones found focusing strongly on the interconnection between daily fantasy sports and gambling-related problems (e.g., [15,24,30], as opposed to the direct relationship between FS participation and one's emotional or mental health.

The previous literature provides a good account of the FS and FF literature in this area, but most relevant to the current paper is the recent study by Wilkins et al. [45]. Here the authors used a qualitative approach to explore in more detail the positive and negative experiences of those who take part in FF. Fifteen male participants with an average of 8.1 years of FF experience took part in one-to-one interviews which were then thematically analyzed. This analysis yielded four *meta*-themes – "Potential Positives", "Potential Negatives", "Mediating Factors", and "Future Game Play" – and several further themes and sub-themes.

The present study focuses on the Model for Initial Involvement and Continued Involvement in Fantasy Football (MICIFF; see Fig. 1 below) which was developed from the "Potential Positives" *meta*-theme of Wilkins et al. [45]. This model explains the factors at work when someone first starts playing the game, and then when someone chooses to continue playing the game. Initial involvement factors are divided into those relating to personal benefits (lighter green box in Fig. 1), social connections (lighter yellow box), and involvement in football (lighter blue box). Continued involvement factors are divided into the same areas and are represented by darker shades on the left side of the figure. Initial involvement factors also exist within the continued involvement dimension, though continued involvement factors are reasons that individuals only become cognizant of once they begin playing FF, hence the cyclical relationship illustrated.

The MICIFF supports the existing literature of motivations for participation in FS, some of which were discussed earlier. It is also successful in helping to expand our understanding of the sport-specific factors that are applicable to fantasy *football* players, a sport that has received considerably less attention compared to fantasy versions of the game such as American football or baseball. Given the potential implications that can be generated from the model by stakeholders within the FF industry, it is important that evidence is generated to validate the hypothesized model. For instance, the model highlights the important role that social connections have in initiating and continuing one's involvement in FF, and therefore game creators may be inclined to utilize this by building functions that enable greater methods of interaction within the software platforms of the game. To have confidence in adopting such strategies, though, the model needs to be validated by additional studies which use different methodologies and do so with different samples of participants to the original study from which the MICIFF is based.

Similarly, the MICIFF could be used to optimize how FF (and FS more generally) are advertised to prospective players by highlighting specific,

Fig. 1. Wilkins et al.'s [45] MICIFF Note. Green = Factors relating to "Personal Benefits"; Yellow = Factors relating to "Social Connections"; Blue = Factors relating to "Involvement in Football". (For interpretation of the references to color in this figure legend, the reader is referred to the web version of this article.)

targeted factors that lead one to play the game. Aside from providing evidence to support each of these potential motivations, additional research examining the MICIFF may be able to enhance the model by factoring in potential age-related differences that could exist within each factor. Previous research by Brown et al. [5], found that older FS players – defined as those over the age of 35 – were less motivated with the entertainment and surveillance-affording factors and more motivated by using FS as a means of "passing time" compared to those aged 18–34. Age-related differences did not exist for the motivations of arousal, enjoyment, escapism, and self-esteem. Further evidence for age-related differences in game-playing motivations and experiences comes from Whitbourne et al. [42]. Although their focus was on videogames as opposed to FF or FS, they found that, compared to other age groups, the social and competitive benefits were a greater motivation for adults aged 18–29, stress relief a greater motivation for adults aged 30–59, and the desire for 'challenge' a greater motivation for adults aged over 60. Thus, age seems to be an important variable to consider when exploring motivations and experiences in a game such as FF but is currently not considered within the MICIFF.

Aims of the Present Study: The present study aimed to examine the validity of Wilkins et al.'s [45] MICIFF, whilst also incorporating an analysis that allowed for potential age-related differences in the factors of the model to be elicited.

2. Methods

Study Design and Procedure: A cross-sectional, open-ended, online questionnaire approach was taken. It should be noted that the present study formed part of a larger project exploring the experiences and wellbeing of FF players more generally. This larger project utilized closed questionnaires and additional open-ended questions. For ease of reading, only information relevant to the present study are reported. Ethical approval was obtained from the second author's institution prior to participant recruitment and the study adhered to the tenets of the Declaration of Helsinki.

The study was advertised via social media and through two FF websites (fantasyfootballscout.co.uk and fantasyfootballhub.co.uk) between 23/08/2022 and 15/11/2022. These websites are the two most popular FF websites globally, with estimated monthly visits in the range of 1.5 to 3 million (SimilarWeb, n.d. [37]). The advertisements contained a link to the online questionnaire that began by ensuring that prospective individuals were informed what their participation would consist of and then required their agreement to a consent statement. Participants were not incentivized or reimbursed for their involvement. Further ethical considerations were adhered to throughout the questionnaire (i.e., informing participants of their ability to withdraw at any point and their ability to not answer a question if they do not wish to). Of relevance to the present study was one question. This question asked: *"In your opinion, what are the benefits associated with playing Fantasy Premier League?"* Participants were provided with an unlimited text box in which to give their answer. Utilizing a single, open-ended question was deemed preferable to asking participants multiple questions about each individual factor of the MICIFF, as it was believed that this would ensure more honest and less biased responses, whilst also keeping the questionnaire to a manageable length.

Participants: In total, 701 participants provided a text response to the question, though three participants were subsequently removed for reporting their age to be under 18. Of the final sample of 698, 24 (3.4 %) were female. The mean age of the participants was 34.0 (± 12.2). This age is consistent with most of the FS literature (e.g., [13,44]and whilst the male–female ratio is slightly higher in terms of male representation than the majority of previous research, samples of 96 % or more males are not uncommon (e.g., [8,35]. The mean FF experience was 6.8 years. A considerable plurality of the participants were from the United Kingdom (47.2 %), with Ireland (6.1 %), India (5.2 %), and United States of America (5.0 %) next most represented. In total, participants were reported from 75 different countries. This nationality data is similar to that of Wilkins et al. [44] and demonstrates, not surprisingly, the UK-centric base of FF participation, but also the global reach of the game.

Data Analysis: Data was analyzed using both deductive and inductive content analysis. Content analysis is a flexible approach that can be used on a wide variety of written texts, including responses to a single-item question[4]. Deductive content analysis is used when the aim is "to validate or extend conceptually a theoretical framework or theory" and provides a more structured approach compared to other methods [20], pp. 1281). The inductive aspects of integrative content analysis allowed for the open coding of data and therefore new factors to possibly emerge; a benefit given the untested nature – and therefore potential for evolution of – the MICIFF.

The content analysis followed the nine-step process outlined by Neuendorf [29] and is depicted as a flowchart in Fig. 2. As discussed, the aim of the present study was to examine the validity of the factors within Wilkins et al.'s [45] MICIFF. The compartmentalized nature of this model makes it suitable for the deductive aspects of integrative content analysis (step one, theory and rationale). That is, the model encompasses two dimensions (initial involvement and continued involvement) across which there are 15 factors specifically identified. These factors act as ready-made coding categories to which the qualitative data can be initially counted (step two, conceptualizations). Table 1 provides descriptions of each factor and acts as the coding framework for the data collection process.

The hand coding process involved the lead author and third author analyzing responses to a single open-ended question which asked participants, *"In your opinion, what are the benefits associated with playing Fantasy Premier League?"* The wording allowed us to address the specific aims of the study (step three, operationalizations), whilst also being easily understandable across all ages and individuals for which English may not be their first language. From this, the first author was able to create a codebook and coding form (see Appendix) which was revised as necessary during subsequent steps of the process (step four, coding schemes). Responses from the entire sample of participants was analyzed. The extent to which this sample is representative of the wider FF playing population has been touched upon in the preceding 'Participants' subsection and will be discussed again later in the paper (step five, sampling).

To begin the analysis process, both authors re-read the paper by Wilkins et al. [45] to increase familiarity with the work and ensure understanding of, differences between, and criteria that would constitute each factor. Next, a random subset of 20 responses were coded by both individuals together, discussing thoughts before agreeing upon the factor(s) which they reflected (step six, training and pilot reliability). Responses were coded through both implicit and explicit identification as this provides a richer definition of meaning [7]. After this, all remaining responses were coded twice, three weeks apart, by the lead author only, with the discrepancies in coding highlighted. Intrarater reliability was calculated for each factor by dividing the number of discrepant codes by the total number of codes and converting this value to a percentage. The mean reliability across all factors was considered very good at 89 % and ranged from 62 % ('Pass the Time', a new factor) to 99 % ('Maintaining Friendships') (step seven, coding). Following this, both the lead author and the third author read Wilkins et al. [45] again, discussing the factors to re-affirm consistency in understanding, before collaboratively reviewing and then deciding upon the coding for the discrepant responses previously highlighted. Importantly, this stage also included discussion of newly emerged factors identified with the inductive aspect of the content analysis. Finally, another subset of 30 responses not previously reviewed was randomly chosen and coded by both authors separately, with intercoder reliability (ICR) calculated using Cohen's kappa (step eight, final reliability). An ICR value of $k = 0.76$ was obtained and was interpreted as "substantial" [28].

The results of the content analysis were reported as coding coverage percentages; that is, the percentage of the participant sample for which

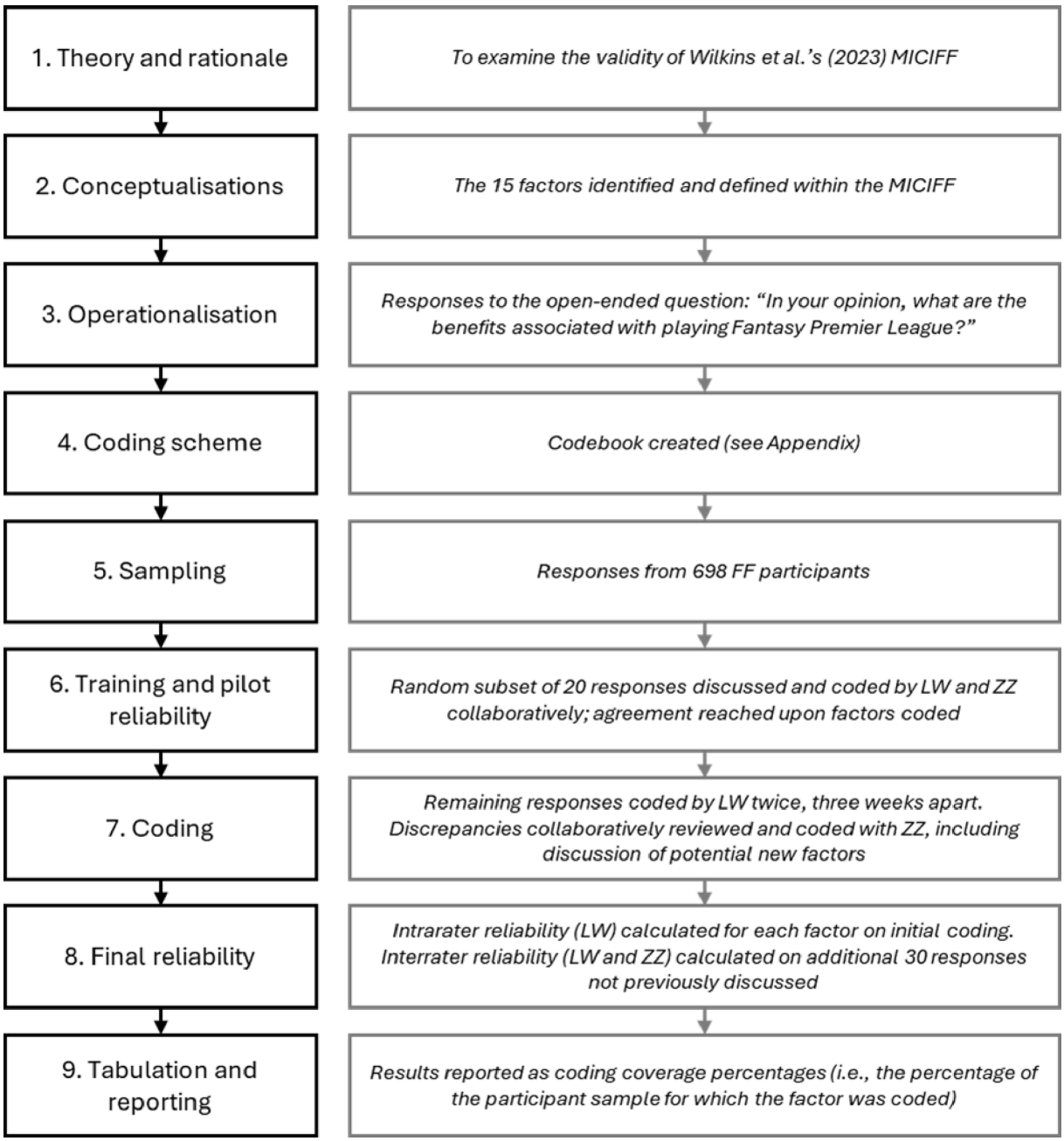

Fig. 2. Flowchart for the Content Analysis, Adapted from Neuendorf [29]Notes. LW and ZZ refer to manuscript authors.

the factor was coded. To examine age-related differences in factors, a chi-square test of independence was employed with the data from the content analysis (i.e., categorical values of either 'coded' or 'not coded' for each factor and each participant). Cramér's V was used to indicate the effect size and an alpha level of $p < 0.05$ was used as the threshold for statistical significance (step nine, tabulation and reporting).

3. Results

From the 698 participants who provided text responses to the question, 1,955 codes were recorded that spanned all 15 of the factors from the original MICIFF by Wilkins et al. [45], as well as two newly emerged factors. Responses from four participants did not fit into any category; one responding with "none" (i.e., there are no benefits to FF), another responding with incomprehensible text, and two responding with "helps to relax" and "it's just a game", which were deemed not to map to any existing or newly emerging factor.

As can be seen in Fig. 3 below, strong support (i.e., greater than 33 % coverage) was found for three of the 15 factors and reasonable support (i.e., between 8 and 33 % coverage) was found for a further nine. Little support was found for the factors of "provides a routine" (2.15 %), "big part of life" (0.43 %), and "pre-season anticipation" (0.14 %) and therefore they were excluded from further analyses and reporting. Additionally, the inductive aspects of the content analysis identified two new factors: "pass the time" (8.74 %), and "financial benefits" (8.60 %). It also highlighted the need to amend one factor; that of "develops transferrable skills". Given the overwhelming prominence of 'decision-making' in the responses that coded for this factor, it was deemed appropriate to re-name the factor to reflect this added insight, thus the new factor of "develops decision-making and other transferrable skills" (17.77 %).

In terms of the new factors, "pass the time" refers to FF as 'something

Table 1
Descriptions of the factors in Wilkins et al.'s [45] MICIFF.

	Factor	Explanation
Personal Benefits	Enjoyment	References to the inherent enjoyment, entertainment, joy, fun, and thrill of playing the FF game. (1).
	Escapism	References to the distractive capacity of FF; it acting as an escape or a break from normal or other aspects of life.
	Opportunity to compete	References to FF providing a way to compete with others and/or engage their competitive personality/desires.
	Big part of life	References that indicate FF to be more than just a hobby or game; that it is an important part of their life.
	Challenging	References to the challenge provided by FF, the intrapersonal competition, or the difficulty of success (from a positive perspective).
	Rewarding	References to the positive emotions received as a consequence of the various successes that can be had in FF (notably, scoring points, but also success with decisions and strategies).
	Provides a routine	References to FF providing a structure to their week, year, or life – the positives of the (mostly) consistent routine to the game.
	Develops transferrable skills	References to how FF enables the development and practice of skills that are useful in other areas of life, and which allow for personal development and growth.
Social Connections	Creating friendships	References to FF as a source for the creation of new friendships and new relationships. (2).
	Maintaining friendships	References to FF as a way to maintain existing friendships and relationships; a reason to keep in contact with friends and family; a topic of conversation with friends and current or former colleagues. (2).
	Sense of community	References to the positive community aspect generated by FF; feeling as if one belongs to a group and having a shared interest with others (without adjoining reference to existing or newly made friends).
Involvement in Football	Increases knowledge of football	References to FF as a means of increasing knowledge about ('real-world') football, likely players and teams, but also general 'goings-on'.
	Mimics real football	References to FF reflecting (positively) football in 'the real world'; acting as an addition to and/or replacement for one's involvement with the sport. (3).
	Opportunity to strategize	References to FF as providing the opportunity to engage in football-related strategic thinking, akin to that of a 'real-world' football manager/coach. (4).
	Pre-season anticipation	References to FF as a vehicle to enhance the anticipation and excitement for real-world football during the off-season.

Notes. (1) Comments adjoining enjoyment to another factor code only to the other factor. E.g., "makes watching football more fun" would code only as 'Mimics Real Football'. (2) In responses where "social benefits" are referred to without further detail, both 'Creating Friendships' and 'Maintaining Friendships' are coded. (3) FF as a reason to increase the amount of football watched, or enjoyment gained from watching football, is coded as 'Mimics Real Football'. (4) If references to strategizing allude to the development of this as a skill (as opposed to simply something to experience) then this is also coded as 'Develops Transferrable Skills'.

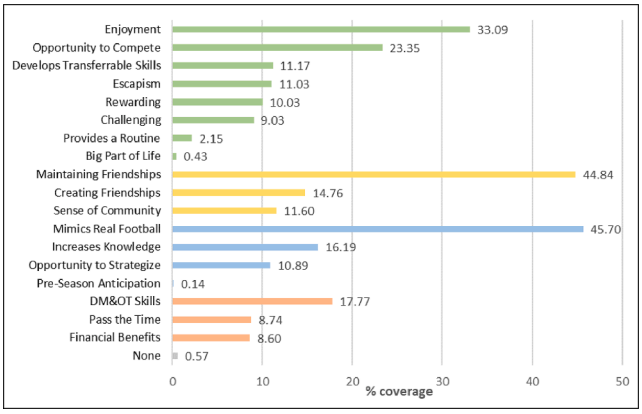

Fig. 3. Coding coverage from the content analysis *Notes.* Green = personal benefits theme; yellow = social connections theme; blue = involvement in football theme; orange = newly emerged/amended factor. DM&OT = Develops decision-making & other transferrable. "None" refers to the four non-coded responses. (For interpretation of the references to color in this figure legend, the reader is referred to the web version of this article.)

to do'; a hobby individuals take part in for the sake of occupying oneself when not engaged in more prominent/necessary activities in life such as work or education. Importantly, when coding this factor, there was no affective aspect adjoined to the response. That is, 'an enjoyable hobby' would not be included, as this would code for the factor of "enjoyment" instead. "Financial benefits" refers to the positive, monetary aspect of FF. Most often this included references to FF as a preferable alternative to gambling, though there were also responses that mentioned the 'free' and 'value for money' nature of the game, as well as some responses that alluded to winning financial prizes through playing.

To provide a semblance for the qualitative data collected, responses from five individuals have been presented below, with the coding of factors indicated using squared brackets [ ] and the age, gender, and experience of the individual also reported. These five responses were specifically chosen as they manage to include all 14 of the final factors identified in the present study. Table 2 provides further representative quotes for each factor, though in these cases, only the text that pertained to each factor from the response has been included.

"For me fantasy football amplifies the joy of watching the game [Mimics Real Football]. *I also enjoy studying about fantasy football and try to make the best decisions possible from that information* [Develops Decision-Making and Other Transferrable Skills]. *I am a highly competitive person and I strive to get an overall rank as high as possible* [Opportunity to Compete]. *Overall, I play the game mostly for enjoyment* [Enjoyment] *and the competitive side of the game."* (21-year-old, male FF player with 2 years of experience).

"It is something external to focus my attention on, away from my 'real life' [Escapism] *and it continues for most of the year (June/July when it launches to May when it ends). It allows me use my knowledge and enjoyment of Premier league football* [Mimics Real Football] *to predict results and outcomes without there being any financial penalty for making errors of judgment* [Financial Benefits]*"* (65-year-old, male FF player with 9 years of experience).

"No risk and friendly competition [Opportunity to Compete] *with friends and family* [Maintaining Friendships] *in mini league and a good challenge* [Challenging] *revolving around tactical decisions, strategy* [Opportunity to Strategize] *and planning* [Develops Decision-Making and Other Transferrable Skills] *based around football (don't like computer games for meeting this sort of thing)"* (53-year-old, male FF player with 10 years of experience).

"The game is a positive social catalyst, encouraging interaction with friends, co-workers etc. [Maintaining Friendships]. *For those who choose to engage further, the online FPL community is also vast and passionate* [Sense

Table 2
Representative quotes for each factor in the revised Model for Initial and Continued Involvement in Fantasy Football (r-MICIFF).

	Factor	Representative Quote
Personal Benefits	Enjoyment	*"Just fun innit."* (18, M, 2)
	Opportunity to compete	*"…I am a highly competitive person and I strive to get an overall rank as high as possible."* (21, M, 2)
	Escapism	*"It allows escapism from day-to-day issues."* (51, M, 17)
	Develops decision-making and other transferrable skills	*"FPL being a Knapsack Problem helps me to have better decision-making skills especially when it comes to comparing 3–4 players and reasoning why I went for 1 player out of those 3–4. This helps in real life scenario too to choose 1 if there are 3–4 options to choose from."* (31, M, 9)
	Challenging	*"Enjoy a challenging game."* (36, M, 10)
	Rewarding	*"…the satisfaction of finding the right players after doing some research."* (26, M, 4)
	Financial benefits	*"…I find it provides a similar thrill to gambling without the negatives, it is impossible to chase winnings."* (46, M, 20)
	Pass the time	*"It distracts from the great cosmic boredom."* (54, M, 12)
Social Connections	Maintaining friendships	*"I think it provides a great bonding tool especially for men who sometimes need a reason to keep friendship/ acquaintances going. A very handy extension to the standard general man conversation of sport…"* (56, M, 12)
	Creating friendships	*"…Good source of making connections and friends."* (21, M, 6)
	Sense of community	*"The belonging to a larger community that enjoys football as much as I do…"* (26, F, 4)
Involvement in Football	Mimics real football	*"Benefits for me are after playing* [football] *for 30 years and older and no longer able to play…"* (50, M, 2)
	Increases knowledge of football	*"Increased football knowledge – I have learnt so much more about players, teams, tactics etc. through playing FPL…"* (34, F, 3)
	Opportunity to strategize	*"I also really like the strategic part of the selection, choices and planning"* (24, M, 2)

Note. Comments adjoining enjoyment to another factor code only to the other factor. E.g., "enjoy a challenging game" would code only as 'Challenging'. Text in brackets refers to participant age, gender, and years of experience. E.g., (22, M, 3) indicates a 22-year-old, male participant with 3 years of FF experience.

of Community] – *which means there is an almost endless wealth of information online, making the game a valid time-killer/hobby* [Pass the Time]. *Questionable how important this is but FPL also tends to improve one's knowledge of the Premier League and what is going on with certain teams/ players* [Increases Knowledge of Football]." (35-year-old, male FF player with 5 years of experience).

"*1. Actively engaged in the Premier League season in a deeper way than just supporting one team or passively watching* [Mimics Real Football], *2. Meet/engage with new people* [Creating Friendships] *within the growing FPL media ecosystem* [Sense of Community], *3. Strategy-based game* [Opportunity to Strategize], *4. Competition – competitive nature* [Opportunity to Compete], *5. Getting things right – satisfaction of predicting; safer version of betting I think* [Financial Benefits], *6. Getting the blue stars next to my players if they are in the team of the week or season of the weak – personal favorite because it looks so cool!* [Rewarding]" (Male FF player with 6 years of experience; age undisclosed).

For the analysis of age differences in responses, participants were divided into two groups: younger adults (aged 18–34) and older adults (aged 35 and over). Younger adults comprised 361 participants (*M* age of 25.3 years; 2.5 % females) whilst older adults comprised 273 participants (*M* age of 45.5 years; 3.7 % females) (note: 64 participants did not disclose their age and, thus, are not included in this part of the analysis). The age ranges chosen for these two groups match those used by Brown et al. [5], the only other examination of age within the FS literature, as well as those which are commonly used more generally in research (e.g., [17,32].

Independent samples t-tests showed a non-significant difference between the younger adults and the older adults in the number of words per response ($p = 0.898$, younger adults $M = 26.2 \pm 23.4$, older adults $M = 23.9 \pm 28.7$) and in the number of codes per response ($p = 0.622$, younger adults $M = 2.7 \pm 1.4$, older adults $M = 2.6 \pm 1.5$). Thus, age differences in the findings from the content analysis cannot be attributed simply to one group writing more in their responses.

The Chi-square independence tests showed that the two age groups significantly differed in five of the factors: "opportunity to compete" ($\chi^2 = 6.343$, $df = 1$, $p = 0.012$, Cramér's V = 0.100), "escapism" ($\chi^2 = 8.549$, $df = 1$, $p = 0.003$, Cramér's V = 0.116), "challenging" ($\chi^2 = 10.185$, $df = 1$, $p = 0.001$, Cramér's V = 0.127), "rewarding" ($\chi^2 = 12.371$, $df = 1$, $p < 0.001$, Cramér's V = 0.140), and "mimics real football" ($\chi^2 = 6.887$, $df = 1$, $p = 0.009$, Cramér's V = 0.104). Coding for "opportunity to compete", "rewarding", and "mimics real football" was significantly higher in younger adults compared to older adults, whilst coding for "escapism" and "challenging" was significantly higher in older adults compared to younger adults. Fig. 4 depicts the contribution to percentage coverage from the content analysis for each age group and highlights the significant differences found.

The two age groups did not significantly differ in "enjoyment" ($p = 0.596$), "maintaining friendships" ($p = 0.381$), "creating friendships" ($p = 0.107$), "sense of community" ($p = 0.717$), "increases knowledge of football" ($p = 0.313$), "opportunity to strategize" ($p = 0.789$), "develops decision-making and other transferrable skills" ($p = 0.728$), "pass the time" ($p = 0.792$), and "financial benefits" ($p = 0.284$).

4. Discussion

The present study's primary aim was to examine the factors within Wilkins et al.'s [45] MICIFF. A secondary aim was to explore potential age differences in the prevalence of these factors. Integrative content

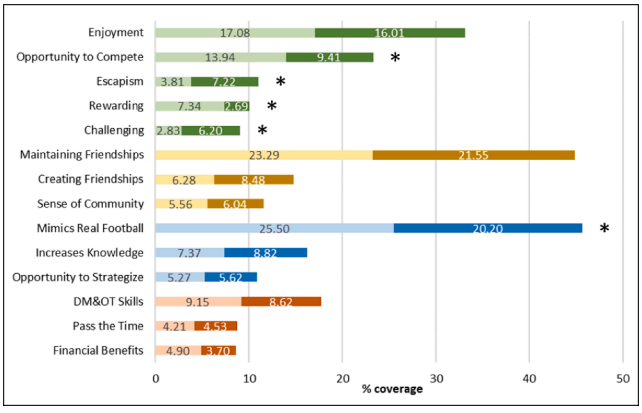

Fig. 4. Age-related differences in coding coverage from the content analysis
Notes. * Denotes significant difference between age groups at the $p < 0.05$ level. Green = personal benefits theme; yellow = social connections theme; blue = involvement in football theme; orange = newly emerged/amended factor. Lighter shades of each color = younger adults. Darker shades of each color = older adults. DM&OT Skills = develops decision-making & other transferrable. Only factors that make up the revised Model for Initial Involvement and Continued Involvement in Fantasy Football (r-MICIFF) are included. (For interpretation of the references to color in this figure legend, the reader is referred to the web version of this article.)

analysis of responses to the question; *"In your opinion, what are the benefits associated with playing Fantasy Premier League?"* confirmed the presence of 12 out of the 15 factors in the MICIFF. Minimal evidence was found for FF "providing a routine" (2.15 % coverage), being a "big part of life" (0.43 %) and increasing "pre-season anticipation" (0.14 %). Additionally, two new factors emerged – "financial benefits" (8.60 %) and "pass the time" (8.74 %) – whilst an amendment was deemed necessary to change "develops transferrable skills" to "develops decision-making and other transferrable skills". Significant age differences were found for five factors. Older adults were more likely to report "escapism" and "challenging" as potential positives of FF, whilst younger adults were more likely to report "opportunity to compete", "rewarding", and "mimics real football" as potential positives. These findings are reflected in a revised Model for Initial and Continued Involvement in Fantasy Football (r-MICIFF) illustrated in Fig. 5 below.

The majority of factors within the r-MICIFF align with existing FS literature, most notably, the systematic review of motivations for FS participation conducted by Martin et al. [26]. Indeed, the most frequently observed motivation in the systematic review was "social interaction", whilst "maintaining friendships" – which sits within the theme of social connections – was the second most reported benefit of FF in the present study. Of the 14 factors in the new r-MICIFF, it could be argued that all map to varying degrees with the motivations for participating in FS listed in Table 1 of Martin et al.'s [26] paper. Interestingly, it is the most reported factor in the present study – that of "mimics real football" – which seems to have the least clearcut match. This factor likely encompasses aspects of vicarious involvement, love of sports/fanship, and entertainment.

Changes to the game mechanics of FPL were minimal between the data collection periods for the present study and the work of Wilkins et al., [45], from which the original MICIFF was developed (Willcocks, [48]). As such, the specific differences in findings between the two studies can be rationalized by the contrasting methodologies employed by each. For instance, it is logical to think that a questionnaire approach (utilized here) would encourage more casual FF players to volunteer compared to an interview approach (utilized in [45] that necessitates more protracted engagement. Whilst engagement with the game and experience with the game are differing constructs, the fact that the mean years of playing experience in the current sample was 6.8 years compared to 8.1 years in Wilkins et al. [45] possibly hints at a more casual FF player in the present study. If this is the case, then it should be expected that the factors "big part of life", "pre-season anticipation", and "provides a routine" would be less evident. These three factors allude to a level of commitment and connection to the game that is developed over a considerable period of time, and therefore is probably contained to long-serving, passionate players of the game. More casual and less experienced FF players would be less likely to engage with the game enough for these three factors to be considered when responding to the research question. Future research could look to examine more precisely how differing levels of engagement impact the perceived benefits of FF.

There are a couple of points worth noting about the lack of support found for these three factors. First, data for the present study was collected *during* the season, compared to in the *off-season* for Wilkins et al. [45]. Thus, it is reasonable that the response of "pre-season anticipation" was more easily retrieved for participants in the latter. Since the factor was coded in only one of the 698 responses and given that the FF season lasts approximately 10 months whilst the off-season lasts only two months, there is logic in removing "pre-season anticipation" from the r-MICIFF. Nevertheless, future research could benefit from verifying this with a more strategic approach, perhaps one that specifically investigates potentially seasonally dependent categories. It may be that certain benefits of FF vary throughout the year, peaking or disappearing in common and/or individualized periods. For instance, "increases knowledge of football" may take greater priority for many FF participants at the start of the season when there are new players, managers, and teams to the Premier League to learn about, whilst "escapism" may take precedence at more individualized times that align with one's peak stressful periods at work or home. A future study could track participants across different points in the FF calendar to examine how the importance of specific benefits fluctuates based on both seasonal and individual life events.

The decision to remove the "provides a routine" factor could be justified by noting that the new factor, "pass the time," may represent a similar underlying concept along the same continuum. The description of "provides a routine" in Table 1 emphasizes the structure and consistency to one's week, and whilst not necessarily elucidated in the responses of participants, it is conceivable that having 'something to do' is providing some of the same elements. Indeed, had it not been for a major event that disrupted the English Premier League during the season in which this data was collected (the death of Queen Elizabeth II, which led to the postponement of football for one weekend and inconsistent rescheduling of matches), it may have been that specific references to routine, structure, and consistency were more contemplatable to participants in the present study. FF may well "provide a routine" for players when circumstances permit (i.e., in a normal, non-disrupted football season).

The two new factors that have been added to the r-MICIFF based on the current study's findings are also cogent based on previous research.

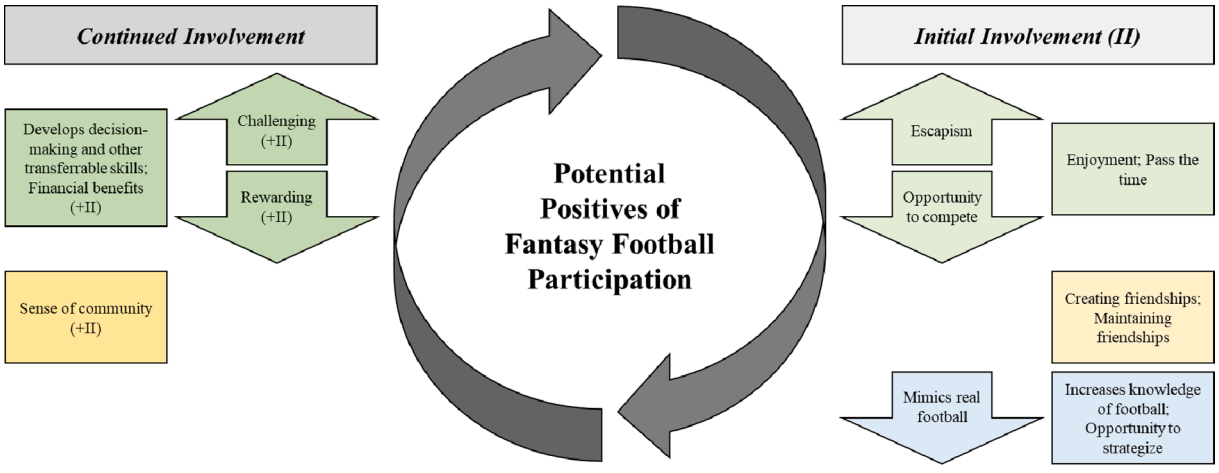

Fig. 5. The r-MICIFF *Note.* "(+II)" indicates the inclusion of the factors from the initial involvement dimension. Factors in upwards arrows are ones that are more prevalent in older FF players compared to younger FF players, whilst factors in downwards arrows indicate the reverse. Factors in rectangular boxes do not significantly differ between age groups.

In particular, "financial benefits" can be seen as an expansion of the "perspectives towards the relationship with gambling" factor within Wilkins et al.'s [45] 'Framework of Hypothesised Factors Leading to Predominantly Positive or Negative Experiences in FF'. It is clear from that work and the findings of the present study that there is a more nuanced relationship between gambling and FF that hasn't been portrayed in previous research, which generally finds a positive, linear relationship between the two (e.g., [25]; Martin et al. [27]; [35]. Perhaps counterintuitively, the prospect of winning money and prizes was also cited by some participants, supporting previous literature (for instance, in Martin et al.'s, [26], systematic review of motivations for FS participation, in which 'reward/prize' was found to be a factor five studies were identified). With a recent study finding that FF players participating in multiple cash leagues reported greater mental health concerns *and* great positive emotions than other players (Wilkins et al. [46]), there appears to be a growing need for future research to address the complex and likely individualized relationship between FS participation and financial involvement.

The addition of "pass the time" is also reasonable and was again reported as a motivation for FS participation by five studies in the systematic review by Martin et al. [26]. Interestingly, one of those studies was the paper by Brown et al. [5] which explored age-related differences. Here, "pass the time" was deemed to be significantly more important for older FS players compared to younger ones; a finding not replicated in the present study. Confusingly, a look at research within social network gaming finds the reverse: that younger adults are more likely than older adults to play to "pass the time" [49]. Thus, it appears the inclusion of the factor is valid, though its exact role within the lifetime of an FF player is less clear.

The present study also found that older adults are more likely than younger adults to play FF for escapism. In the work by Dastidar and Roy [9], FF players reported greater escapism if they were more competitive and had higher engagement with the game – two aspects more likely to be labelled at younger adults. In Brown et al. [5], no age-differences were found for escapism. Despite these contradictory findings, it is reasonable to think older adults would more frequently report escapism as a benefit of playing FF given that older adults generally experience more daily stress than their younger counterparts[41]. Yet these contrasting findings from Dastidar and Roy [9] and Brown et al. [5] have also been supported in videogame research[19], and align more closely with the negative relationship often found between age and the use of escapism as a coping strategy[1]. This incongruity is an interesting one and warrants further investigation, particularly given the rapid recent growth in immersive technologies such as augmented and virtual reality that will almost inevitably transition into how players consume FS, likely leading to greater opportunity for escapism[18]. It is also possible that the differing between the present study and Brown et al., [5] – which extend beyond the factors of "pass the time" and "escapism" – are a result of sampling differences (97 % male, plurality British vs 66 % male, likely American-centric though not reported) or sporting/gameplay differences (fantasy *football* vs fantasy sports generally, though in reality, likely American football, basketball, and baseball).

That younger adults were more likely to report FF as providing an opportunity to compete, whilst older adults were more likely to report FF as providing them with a challenge, is supported by the videogame study by Whitbourne et al., [42]. The parallels between FS and videogames have been drawn by Wilkins et al., [44] and these findings enhance that by connecting the two in terms of how their perceived benefits vary across the age of participation. The final significant difference between age groups came with the "mimics real football" factor, with a higher incidence of this in younger adults. This could be due to younger adults being less likely to have immediate family (spouse and children), which may give them greater opportunity to watch football matches at the weekend (with the viewing of matches conceivably important in identifying how FF can reflect the real-world sport). It could also potentially relate to younger adults likely being closer in time (or even still within the time) in which they are also participating in real-world football, and thus, their real-world involvement motivates their fantasy involvement.

The present study is not without its limitations. As with all qualitative analyses, there is the possibility of researcher bias given the subjective interpretations required. Whilst considerable steps were taken to ensure strong methodological rigor, it should be acknowledged that biases may still have emerged. The cross-sectional nature of the study also has limitations, particularly with respect to the findings for age differences. A longitudinal approach which tracks the responses of participants over several years, whilst logistically difficult, would provide a more accurate representation of how motivations and experiences towards FF change as players age. On the topic of age, it should also be noted that differences in responses may not necessarily represent the real differences experienced and perceived by individuals, but rather, may reflect the differences that exist between age groups in how we think about and respond to questionnaire items[2]. That is, because language evolves as we age[31], the words and phrases used by older participants in their responses may have been more likely (or less likely) to meet the criteria for coding for certain factors in the analysis. Further replication of these factors in a purely quantitative questionnaire would alleviate this concern.

With evidence now found to validate and improve upon the work by Wilkins et al., [45], future research should look to examine the mechanisms underpinning some of the factors in the r-MICIFF in more detail. One such mechanism could be the role of social media in FF involvement. In the present study, two of the most reported positive factors associated with FF participation were maintaining friendships (44.84 % coverage) and allowing the ability to compete (23.35 %). It is feasible that social media offers an ability to amplify both of these factors through the online communities that are created and the ease with which multiple social comparisons can be made; an idea supported by recent work by Rai and colleagues [33] with fantasy cricket participants. Further, it may also be that the role of social media provides an explanation for the significantly greater reporting of escapism by younger adults compared to older adults (7.22 % vs. 3.81 % respectively). Most demographic surveys show that younger adults use social media to a higher extent than older adults, especially on the most commonly used application for FF, Twitter. For example, Statista [38] found that as of April 2021, 55.6 % of Twitter users were aged 18–34, in comparison to 37.8 % aged 35 + . If this is representative of FF social media usage, social media may amplify the ability to escape as it provides the ability to join a community focused on this virtual game. However, it is also feasible that digital escapism could create negative outcomes if dependence on the internet becomes excessive [39]. Recent findings from Wilkins et al. [47] suggest that FF content creators and influencers – whose work is almost exclusively dependent on social media – may be particularly susceptible to the negative emotional impact of the game due to their (necessitated) excessive engagement with the game. Relatedly, Wilkins et al. [44], also hypothesize that social media may enhance feelings of anxiety and fear of missing out due to the large number of social comparisons and potentially toxic nature of online discussions. Thus, it would be useful for future research to explore whether there is a significant difference in the positive and negative experiences of FF players when taking an active role in social media discussions around FF in comparison to direct participation in FF.

Our work has important implications for the FF industry. One strategy may be to focus on promoting the positive factors that are already very high, as these are likely what people enjoy most about FF involvement. For instance, maintaining friendships was a commonly reported positive factor in this study, but at present FPL – the official FF game for the English Premier League – offers very little within the game to support and promote this element. As per Wilkins et al. [44], the average FPL player is part of six leagues, and it is through these leagues that many individuals maintain friendships and communicate with long-term friends and colleagues. It could be that within the app or website,

FF administrators introduce a chat function or ability to discuss the game, separate to social media. This will offer individuals an increased opportunity to maintain friendships and compete with other players, without the possible negative issues associated with prolonged social media usage[22]. An additional possibility is to create online community sections within the app or website for players to meet new people. Creating new friendships was only mentioned by 14.76 % of participants in the present study, which suggests that FF administrators could do more to foster new connections between FF players.

The findings here also offer valuable insight for those involved in the EPL. Recently, Alexandra Willis (Director of Digital Media at the Premier League) claimed that FF has become 'one of the most important pillars' in the Premier League's digital strategy[36]. Building on this, the most reported positive factor for FF in the present study was that it mimics real football. Therefore, if FF is seen as an important element in growing and maintaining interest in the EPL, and the most positive factor for FF players is that the game mimics real football, those involved in the broadcasting of EPL games should explore ways to incorporate FF-based segments into the televised programs to further improve the connection between FF and the league. Likewise, a successful strategy for television companies could be to embrace the fact that many studio pundits and commentators play the game by enabling deeper on-air discussions about FF. Such 'celebrity' endorsements can add credibility to the game and enhance positive perspectives towards it provided that the celebrity is considered trustworthy [3]. Similar approaches have been a feature of American sports broadcasting and American fantasy sports for over a decade[6].

The present study has provided evidence to support and improve the work by Wilkins et al., [45]. In doing so, the revised Model for Initial Involvement and Continued Involvement in Fantasy Football (r-MICIFF) has been proposed. This model involves the removal of two previous factors, the addition of two new factors, the amendment of one factor, and the embedding of age-related differences in certain factors. Limitations of the study include the potential for researcher bias inherent in qualitative analyses and the cross-sectional design limiting insights into the age-related changes. Future research should explore potentially seasonally dependent benefits of FF participation and examine how social media use influences engagement in the game. The findings of the present study have important implications for our understanding of the experiences and potential benefits of playing FF, which may extend to FS more generally.

CRediT authorship contribution statement

Luke Wilkins: Writing – original draft, Visualization, Methodology, Formal analysis, Data curation, Conceptualization. **Jamie Churchyard:** Writing – review & editing, Supervision, Resources, Project administration, Methodology, Investigation, Data curation. **Zoella Zaborski:** Writing – review & editing, Formal analysis, Data curation. **Ross Dowsett:** Writing – review & editing, Data curation, Conceptualization. **Gary Britton:** Writing – review & editing, Supervision, Resources, Project administration, Methodology, Investigation, Data curation, Conceptualization.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.entcom.2024.100917.

Data availability

The data that has been used is confidential.

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