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6.1 SOCIAL GAMING AND REAL-MONEY GAMBLING OVERLAP

Video games have given rise to one of the most diverse and vast industries across the globe. In July 2016 alone the market for digital games amounted to $5.9 billion in sales, with the highest popularity being attributed to mobile games, digital consoles and free-to-play computer games.[1]

The origin of online games can be traced back to the times well before the Internet was invented. In the United States, the first virtual tennis game was played on an oscilloscope screen that was developed by William Higinbotham in 1958. Higinbotham was a US government nuclear research scientist who wanted to excite visitors to his science lab by developing something that they could do, instead of only being allowed to passively look at the exhibits.[2] In 1962, Steve Russell created Spaceward on his university's computer.[3] The quick rise in the popularity of his game amongst other students quickly attracted the attention of the business world as it demonstrated the commercial potential of this form of entertainment. However, the games could not have been commercially viable on a large scale until appropriate devices became more widespread and affordable for the general population. The momentum for this occurred in 1972 when the first mass-marketed home gaming machine, called 'Odyssey', was produced.[4] The key development was the ability to remove and replace media components. This allowed the games to be developed, manufactured and sold outside the actual device on which it must be played, and paved the way for console gaming. At the same time, the increased sophistication of home PCs contributed to the growth of computer-based games. The first computers that installed gaming options in the United States were Apple's 1977 Apple II and Commodore's 1982 Commodore 64.[5]

Prior to the invention of the Internet, the development of the gaming market followed three clearly separated streams, with nearly no transfer- ability between them.[6] These were console-based games, handheld games and PC games. Each of them had a different customer base, as well as different operating models, publishing formats and productions. While console-based games were often subjected to a long process of testing and ensuring that they were problem-free from start, PC games were often released quickly on the assumption that any 'bugs' that may be discovered during use could be fixed with software updates. While this distinction continues to the present day, the late 1990s started seeing the use of the Internet as a gaming forum. New games were created that allowed individuals located in different geographic locations to play together online. The revolution in online gaming continued with the invention of smart phones and other portable devices such as tablets and smart watches, the rise of social networks and user-generated virtual media. All those developments dramatically changed how games can be played. The current availability of broadband, the increased sophis- tication of Internet-enabled technology and widespread access to the Internet regardless of location means that the consoles, PCs, phones and other technology now starts to represent a mere medium by which a game can be accessed. This caused a substantial convergence of gaming, gambling and virtual worlds and has led to gambling activities being incorporated into many video games, utilising their audio and visual qualities.

However, 'demo' social gambling games and video games containing gambling-like elements are considered to lack a prize that would amount to money or money's worth within the meaning of section 6 of the Gambling Act 2005. This removes such games from the regulatory regime created by the gambling legislation and places them within the remit of video games and online gaming regulation. This regulation is very fragmented and, at best, incomplete. In the United Kingdom, since July 2012, the role of rating video games has been allocated to the Games Rating Authority by the Video Recording (Labelling) Regulation 2012 authorised by section 41 of the Digital Economy Act 2010. As a result, UK law incorporated the Pan European Game Information (PEGI) system and now requires all video games that are suitable to be played only by those over the age of 12 years old to be classified. PEGI lists simulated gambling as one of the components that must be considered when classifying video games. However, this does not equate to those games being rated as suitable for adults only, and many games that directly resemble gambling or contain gambling-like elements have been classified as suitable 'for all persons', which means from the age of 3 years old onwards. Examples may include Super Mario Bros or Moshi Monsters. Indeed, since the year 2000, about 100 new games have been introduced with gambling-like activities, with most of them being rated either as 'suitable for all' or as one where 'parental guidance' is advised.[7] The PEGI system

traditionally rated games that are sold in a physical form. It was only in 2007 when the online branch of the PEGI system was created. This began to offer greater protection to minors on the Internet, but their online operation and scope differs. This adds further to the complexity and fragmentation of the regulatory provisions applicable in this field. Many typical casino games such as roulette and poker are rated on iTunes as suitable for those over the age of 12 and are freely available to minors. Additionally, even games that are rated as suitable for those over 18 years old are known to be often played by those well below the specified age[8] and enforcement of video gaming regulations is almost non-existent.

This situation has been raised as a potential concern in the context of minors' protection from gambling-related harm. On the one hand, playing such games may entice youngsters to try real-money gambling or may introduce them to and excite them about this form of entertainment without anyone else necessarily knowing about it. Such games often represent a powerful form of advertising. Alternatively, they may inhibit young people gambling for money because they can play similar games for free, and for those who may already be predisposed to real-money gambling this may delay their initiation. These contrasting possibilities make a precautionary approach less desirable. The prohibition of such games being available to minors may have the opposite effect of encouraging real-money gambling, which would be counterproductive. But it continues to remain uncertain as to why those who play demo/ social gaming games migrate to real-money gambling soon after initiation.[9] A better understanding of the potential relationship between these two forms is therefore essential for better policy making, and this chapter providers further insight into how young British people differentiate between the myriad of available options.

The following sections of the chapter are divided into two main parts. Firstly, the reasons why the cross-over between non-monetary and monetary forms of gambling may occur are examined. This is followed by a discussion of what we currently know about the impact of such games. Secondly, the chapter goes on to discusses in depth the results of the focus group discussions with children and young people. The finding are referred to throughout each chapter in this book, but as the predom- inant focus of the sessions was to gather minors' views on the overlap between video games and real-money gambling, most of the input is primarily relevant to this chapter.

Terms used in this section do not have easy reference points. Some- times, a single term, for example 'social gaming', denotes different meanings depending on the context in which it is used. Similarly, different terms can be used to describe the same phenomenon. Accordingly, a special taxonomy has been developed for the purpose of this chapter in order to expose the relevant distinctions accurately. The term video gaming/games is used inclusively to incorporate all games that are played using existing technological devices, regardless of which platform they are being accessed by and irrespective of whether Internet connection is required, but excluding any games that fall within the definition of gambling. Video gaming/video games therefore includes all games played on computers, mobile phones, portable tablets, games consoles and other technological devices that do not offer any monetary prize or the possibility of cashing out any winnings or payments that may have been made towards the acquisition or playing of the game. These games can be acquired for free, for one-off payment, or can be played via a regular subscription. The term also includes 'freemium games'. Freemium games are those that are generally free to play to start with but players are invited to pay in order to buy additional boosts or levels in the games, to buy in-games 'skins' or other virtual gifts or gadgets. These items are typically not essential to playing the game but may make it more enjoyable.

Video games are further subdivided into the categories of fun gambling games, entertainment games and hybrid games. Fun gambling, also referred to as free-to-play games refers to those games that mirror typical gambling games such as poker, blackjack, roulette or slot machines but which do not offer any financial prizes or pay-outs. Fun gambling games consist of two subtypes: (1) demo gambling games, and (2) social gambling games. Demo gambling refers to those games that are played on online real gambling websites while social gambling refers to those that are played on social networking sites. Gambling-like activities describe all activities contained within video games that resemble real gambling but which do not provide any real prizes outside the game itself. Entertainment games refer to all gaming activities that do not include any gambling-like activities within their themes such as Angry Birds or Jelly Defense, while hybrid games describe all games or virtual worlds that are predominantly entertainment games but which have either mandatory or optional gambling elements incorporated within their overall theme. This gambling component can be overt, such as mini- casino in Call of Duty or covert, such as betting virtual currency on an envelope containing unknown football players with the hope of getting good quality ones but having no way of influencing the outcome, as in for example, FIFA. Overt gambling components are easily recognisable as such while covert ones may not necessarily be seen as gambling by players.

Real-money gambling/gaming is used within its meaning as defined by section 3 of the Gambling Act 2005 and is used interchangeably with terms such as 'for money gambling', 'true gambling', or 'monetary forms of gambling'. The terms 'social networking sites' and 'social media' are used to denote the meanings given to them by Parke et al.[10] as follows: '[a] website that provides a virtual community, allowing users to create their own profile or personal homepage, and to develop an online network by linking with other users of that site' and 'the broad range of internet based platforms on which users can create and share their own content online, including but not limited to social networking, book-marking, photo or video sharing respectively'. This description is demonstrated in Figure 6.1.

6.2 WHY SOCIAL GAMES MAY LEAD TO GAMBLING?

The potential relationship between non-monetary forms of gambling and real-money gambling remains uncertain. It has been speculated that the first may lead to the second due to the similarities in structural and psychosocial characteristics of both activities, as well as the technological advances that enable both forms to be offered on the same platforms, using the same technological solutions, and within the same environment, either as separate or integrated games. Both share many structural features, and both may satisfy similar psychological needs that, over time, may lead minors to believe that these two types represent the same form of entertainment. 'Demo games' are always free to play but social fun gambling games and video games with gambling-like activities increasingly utilise the 'freemium' model. Minors who spend money on 'in-app' purchases in such games may be enticed to try real-money gambling as they may consider that it would be more worthwhile to spend money on games where they can actually win a real prize. The ubiquity of demo and social games or gambling-like activities makes them easily recognisable and ever-present. This may lead to the 'normalisation' of real-money gambling or to the development of positive attitudes towards this form of leisure more than would be the case otherwise.[11] In other words, players may experience a smooth transition from one activity to another. Such a cross-over is certainty hoped for by some commercial operators, as demonstrated by the comments of one of the main speakers during the Social Gambling Workshop at the Mobile and Tablet Gambling Summit, who stated that 'any gambling company that is able to successfully integrate similar designs and achieve a similar level of commitment from the players [that social gaming sites are able to exert] would completely sweep the market'.[12] Furthermore, players of 'demo' games on real-money gambling websites are almost invariably met with several promotional messages that aim to entice them to transfer to the real play, by, for example being offered a limited time financial bonus or free additional spins.[13] The risks of such potential transmission materialising for minors or even young adults is undesirable. If the risk is material it needs to be recognised as one that relates to gambling rather than just to video games and should be addressed accordingly.

The convergence between video games and many gambling games is aptly demonstrated by the structural features which are very similar to both. These include event frequency that determines how often a particular event occurs within a game, repetitiveness where players repeat similar sequences of activities in order to reach their goals, entrapment where players feel that they have 'gone too far to stop', and near misses where the outcome of the play is perceived by players to be nearly winning as opposed to losing. Similarities also relate to audio-visual effects, how the games are controlled and played, the use of humour and the use of famous brands or well-known and popular television pro- grammes, cartoons or films such as *The Simpsons*.

6.2.1 Demo and Social Gambling Games

Practice games mirror traditional casino games such as poker, roulette, blackjack and slot machines. They can be accessed on a variety of platforms, including social network sites such as Facebook, online video gaming sites such as Wild Tangent or Zynga, and real-money gambling websites. Equally they can be purchased in a physical form from shops or may be downloaded in a digital form from iTunes, Android or other operating systems' stores. Some mobile phones even come pre-loaded with certain types of poker games or roulette apps. For a minority of the games there may be a small acquisition cost, but the vast majority are available free of charge. The developers gain their revenue from the advertisements, in-app purchases or the marketing value of the games. They may also hope that the players may become bored with the demo games and register with the same site to play for real. The development of demo games does not require any significant financial input from the commercial providers and their potential to entice players into real- money gambling represents a sufficient incentive for them to be made attractive and readily available. They allow players to familiarise them- selves with the rules in a risk-free mode, and as they follow the format of real gambling games, their structural characteristics are identical to normal gambling games with two critical exceptions.

The first difference underlines the core of this debate and has already been discussed in Chapter 4. It suffices here to remind ourselves that these games escape being caught by the Gambling Act 2005 because they do not offer any monetary prize, or the possibility of formally cashing out any winnings. They do not allow players to withdraw any initial expenditure that may have been spent on acquiring the game either. The second distinction relates to misrepresentation of the odds and chances of winnings. This is more controversial and may apply only to some of the demo games that are available. Sevigny et al.[14] tested 117 online real-money gambling sites and reported that 39% of them provided inflated pay-out rates of over 100% during the demo sessions that were not maintained during the actual money games. This is no longer permitted for demo games[15] offered on UK-licensed gambling websites but the Internet does not have easily discernible borders and minors can often access foreign demo games where such restriction may not apply.

Such demo games typically are pre-programmed, with exceptionally high amounts of virtual points or credits, with some displaying values of £10,000 in fictional currency. Any suggestion that such amounts represent a normal fund deposited by an average player would be deemed ridiculous to the majority of people. But for some, this may give the incorrect impression that gambling with such large amounts is not unusual and may further desensitise players to the real value of money within an online environment. Such sums may also be read as suggesting that players may win similar amounts on a regular basis which they can then put towards continuing their entertainment. This is consistent with the perceptions perpetrated by many movies and more directly through advertising that often emphasises the chances of winning life-changing amounts and diverts players' attention from the more realistic, day-to-day average wins.

Some operators are open about providing different indicators of possible wins in demo games versus real gambling. For example, Facebook does not hide the fact that they deploy algorithms to prolong players' enjoyment as opposed to random chance and mathematical formulas.[16] This information is unlikely to be of interest to an average player and is unlikely to be read by anyone other than researchers focusing on this issue. Other companies' pay-out rates are typically more covert and sometimes entirely undiscoverable. Such potential misrepresentations of the odds and chances of success may create or reinforce erroneous beliefs that gambling for real produces financial rewards quickly and easily. While gambling software in slot machines or online virtual games has to comply with strict regulations to ensure the fair distribution of prizes, adequate returns to the player and accurate display of odds and other information, this does not properly extend to demo/ social gambling games. The EU Recommendation 2014/478 of July 2014 suggests that these games should follow the same patterns as normal ones in terms of the possibility and frequency of winnings.[17] However, the recommendation has no binding force and only urges the EU Member States to introduce such rules within their respective jurisdictions. There are many countries where this has not yet taken place. Messerlian et al.[18] also suggested that these practice sites may work as preparatory stages before one moves on to real online gambling as they appear attractive to young people due to their 'colourful, fast paced videogame-like qualities'.

6.2.2 Entertainment and Hybrid Games

Structural convergence is not confined to fun gambling games. Entertainment games do not automatically follow the same format as the demo games and many have different aspects. Nevertheless, they share many similarities with real-money gambling, although it is more likely that gambling games styled themselves to resemble video games rather than vice versa. For example, Karlsen[19] analysed the features of the massively multi-player online role-playing game World of Warcraft and argued that aspects such the repetitiveness of playing action with a variable reinforcement schedule, 'near misses' and 'entrapment', which are often cited as reasons for increased participation in real-money gambling, are also clearly present within video games. Within the World of Warcraft the element of repetitiveness is embedded in the 'grinding' process whereby a 'player is repeating the same action over and over again to gather resources', with the action itself requiring no real skill. This is compared to playing real-money slot machines that are equally repetitive and typically require no real skill at all. However, a substantial difference lies in the actual motives for performing those repetitive tasks. For real- money slot machine enthusiasts, this feature in itself is a source of fun and creates a feeling of suspension and excitement. Those who grind in the World of Warcraft generally acknowledge that the grinding process is only a means to an end. It is necessary to enhance their social in-game recognition, stemming from a faster progression to higher levels, but is not enjoyable in itself. This distinction is less pronounced in the context of problem gambling. However, the excitement that gamblers derive from playing on, for example, slot machines materially diminishes if they suffer from a gambling disorder, and the repetitive function is also not enjoyable but becomes necessary to, for example, chase losses and try to regain money that has been previously lost. Moreover, the outcomes on the real-money slot machines are unpredictable, whereas grinding within the game guarantees the desired rewards, making it less akin to gambling.

Unlike repetitiveness, 'entrapment' is not an inherent part of video games, but in some it is a very powerful method to keep players tied to the game. For example, FarmVille, a game played on Facebook which involves creating and looking after a virtual farm, adopts a very visible method of entrapment. The structure of the game necessitates players to log-in on a regular and frequent basis as otherwise their crops will die and players will have to start from the first stage again. This replicates possible life events within a virtual environment, and potentially may teach children the meaning of duties. But persistent playing may cause the opposite outcome of diverting children's attention from real-life responsibilities.

The similarities did not escape the perception of players and the general public. For example, Tyler, an informal blogger, described FarmVille as a form of gambling as he argued that the mechanics of the farm are in substance identical to the mechanics of a slot machine, which he describes as follows:

> To play the game, you put currency into the machine. You then pull the knob and wait for the result. When the result is presented, you are rewarded with a cacophony of exciting sounds, attention-grabbing images, and some form of currency. Often times, this winning helps you progress towards a larger goal. You also have the opportunity with each play to win a rare prize of significantly higher value than the value of the currency you contributed to play the game.

He then points out that this is exactly what happens within the FarmVille game:

> To plant a crop, you must spend resources on the seeds. You then plant the seeds and must wait for them to grow. When you harvest the seeds, you are rewarded with a cacophony of exciting sounds, attention-grabbing images, and some resources. Often times, these resources help you to progress towards a larger goal. You also have the opportunity with each play to win a rare prize of significantly higher value that the seeds that you purchased.[20]

The above comparison omits several important aspects that renders it superficial. The resources needed in FarmVille do not have to be purchased with real money but can be earned in the course of the game, whereas slot machine gambling does not give players the opportunity to start earning monetary rewards without any initial financial outlay. Most of the online incentives are not genuinely free as they typically can only be claimed if another deposit is made simultaneously, but some exceptions exist – for example Sky online casino offers a genuine free bonus that does not have to be matched with another deposit, but such offers are rare.

Most other video games increasingly utilise a milder version of entrapment, albeit in a less overt manner. For example, popular games such as Minion Rush, based on the highly successful children's movies *Despicable Me, 1, 2* and *3*, or Hot Wheels: Race Off, played on tablets or mobile phones, are structured in a manner that strongly encourages daily log-in in order to gain tokens/virtual currency, participate in time-limited competitions and receive bonus points or bonus in-game items/skins. This may underpin the development of an unhealthy attraction to repetitive in-game tasks that may be subsequently trans- posed onto real-money gambling. The 'near miss' is also influential in encouraging both real-money gambling and video gaming because players perceive such outcomes not as losing, but as nearly winning.[21] Within both types of games, this gives players the hope that they are close to a successful outcome and prevents them from getting bored too quickly. 'Near misses' are a necessary prerequisite in all games that involve progressing through levels and achieving certain goals, but they are uncommon in games involving arts and crafts such as Minecraft or Barbie. Progression through the levels, and accomplishment of the final task, must not appear too simple but neither must it give the impression of being unattainable. This prevents frustration and maintains the willingness to come back and try again.[22] In an indirect way, 'near misses' also contribute to the illusion of control, as discussed in the context of psychosocial similarities.

6.2.3 E-sport and Professional Games

The commercial market for playing video/entertainment games for monetary rewards, otherwise called professional games, originated from America. The market for individual professional games is rather limited but e-sports, where video games players compete in a Massively Multi- player Online Role-Playing Games (MMORPG), or other games with monetary prizes have recently expanded exponentially and started to compete with and divert business from traditional gambling. E-sports are treated in a similar way to traditional sports competitions and have been estimated to be worth $612 million annually.[23] E-sports are closely interlinked with gambling in the same fashion as traditional sports are. Many people bet on the outcome of the events. However, outside this link, the games that are played in e-sports tournaments are simple entertainment or hybrid games. Due to the intensity and time commit- ment that e-sport requires from the competitors, such involvement does not induce players into real-money gambling. Rather, it presents a direct competition to it and many casinos in

destination resorts such as Las Vegas have already installed video games rooms in addition to their gambling facilities precisely to attract this cohort of players.

However, some professional games are offered on the market outside the e-sport phenomenon and their similarity to gambling is more acute. For example, an online game Kwari™, accessible via the kwari.com website is a first-person shooter game where players receive payment for killing their virtual opponents or if they progress through the levels within the gaming environment. Player have to pay to participate but can earn real money as rewards. The game description is nearly identical to how poker is described and the skills applicable to poker are simply substituted with shooting skills. These types of game primarily originate from the United States, which applies a preponderance test when deciding whether any given activity falls within the definition of gambling, and they are advertised as games of skill. However, they undisputedly contain an element of chance and randomness, although the exact extent of this could not be discerned from the description of the game or from any other available information, and a request for clarification that was sent to the developer by the author remained unanswered. No age restrictions appear to have been imposed on kwari.com and the game does not seem to have attracted any interest from the Gambling Commission, even though it seems to be almost identical in nature to a game of poker. Indeed, Griffiths[24] highlighted that the game's media information and terms and conditions inform the players that the game is intended 'for people to play for no more than an hour, two times a week with a cap put on the amount a user can spend unless they have been vetted as suitable for high stakes tournaments'. They also include social responsibility measures that are very similar to measures adopted by many traditional gambling companies, indicating the true nature of the game.

6.2.4 Psychosocial Similarities

Psychosocial characteristics play an equally important part. For example, the illusion of control arises when players believe that they are able to exert or influence a positive outcome of a particular event by using their individual skills, actions or through having a 'lucky charm' in situations where objectively, no such influence is possible, or is substantially smaller than the players' perceptions may suggest. Langer[25] defined this phenomenon in a more technical manner as the 'expectancy of a personal success probability inappropriately higher than the objective probability would warrant'. Such an illusion of control is propagated by both real-money gambling games and video games by utilising similar control options and having similar advancement rates in terms of how quickly players are able to progress through the games.[26] However, while the heuristic method of entertainment games typically allows players to improve their performance by persistent training, developing their playing skills and gaining a better knowledge of the game's format, no amount of practice can influence the outcome of completely random events in a game of pure chance. While improvement can be achieved in games where chance is combined with skill, the improvements can only be rather limited if the element of chance dominates. Although neither video games nor real-money gambling is based on pure skill, they may be underpinned by cognitive misconceptions whereby players develop an incorrect belief that they are able to control random events by incorrectly comparing these two activities, either on a conscious or subconscious level.[27] This may result in players of video games trying out real-money gambling and persisting in playing if they are particularly successful at playing video games, believing that they should be equally fortunate if they play for real.

An actual understanding of odds and probabilities tends to be poor in the population generally, although minors, due to most of them still being in full-time education, are more directly exposed to those concepts in maths lessons than many adults in their day-to-day lives. Nevertheless, Delfabbro et al.[28] found among a sample of 2,669 South Australian students aged between 13 and 17 years old that their substantive knowledge was relatively poor and many of them were vulnerable to the gambler's fallacy. This phenomenon causes players to forget that each gambling event is independent of any others and unrelated to any previous or subsequent one, and makes them believe that events will 'correct themselves' over time. A distinction was found to exist between pathological gamblers and those who had no problems with their gambling or who did not gamble at all. Those who had a gambling disorder were more likely to believe that a higher level of skill was involved, even though their overall knowledge of the principles that apply to odds and probability was broadly similar. Hume and Mort[29] similarly reported that many people aged between 13 and 30 years old did not have accurate understanding of the differences between games and real-money gambling.

The analysis of players' motivations shows that both activities may stimulate similar outcomes in terms of emotional needs satisfaction, relief from stress and boredom, socialisation, arousal, competitiveness,[30] and/or escapism.[31] This means that players may seek either of these activities as they tend to fulfil similar, albeit not identical, needs. Some social gambling operators entice their customers further by increasing social interaction and by encouraging players not only to invite friends but also to share virtual goods, or to send gifts in their

'freemium' entertainment models. These transferable items include virtual cards, music tracks or in-game credits which the recipient can enjoy, or which allow them to stay in the game for longer without incurring additional expenditure.[32] They may contribute to the 'substitution effect', whereby the virtual gift is treated by the donor and the recipient as a replacement of, rather than addition to, a material, non-virtual gift. This may fulfil an important social function that may make such games even more attractive. That, in turn, may increase the propensity towards real-money gambling.

The lack of monetary rewards may not be very noticeable during online play. The Internet is inherently a cash-free environment where all transactions are carried out by means of electronic payments. It is generally accepted that virtual representations of money (e.g., e-cash, chips, tokens, etc.) have a lower perceived value.[33] This explains why casinos often require gamblers to first exchange their money for chips to play with. There is also much empirical evidence that shows that the motivations for adolescents engaging in real-money gambling are not limited to winning money but also focus on 'fun and entertainment factors', 'to alleviate feelings of boredom', and for social reasons, as well as to experience a taste of 'the forbidden fruit'.[34] This further reduces the prime role of the game's financial rewards.

The effects of such games, whether they increase or inhibit gambling propensity, is further influenced by the individual reasons for engaging in playing. The most influential typology of players was developed by Bartle.[35] He classified them into four main categories: achievers, explorers, socialisers and killers. According to this taxonomy, achievers are mainly interested in high scores and rapid progression through the levels; explorers wish to understand the virtual universe and its mechanics; socialisers focus on people's interactions and killers derive pleasure from eliminating other players' personae. More generically, Lafrenière et al.[36] identified that motivations can be intrinsic or extrinsic. Those who 'play because they enjoy exploring the game universe and improving their skill levels or because they like the thrill and strong sensation the game provides'[37] or those who socially gamble predominantly to have fun and interact with others, are intrinsically motivated. For them the availability of social gaming may represent a suitable substitute for real-money gambling. Conversely, those who 'play to obtain in-game rewards, such as virtual currency, experience points, or to gain admiration or recog- nition from other players'[38] or who gamble primarily in the hope of winning money, are extrinsically motivated. For them the availability of social gaming may increase the desire to gamble for real.

6.3 CURRENT STATE OF KNOWLEDGE ABOUT THE INFLUENCE OF NON-MONETARY FORMS OF GAMBLING ON THE PROPENSITY TOWARDS REAL-MONEY GAMBLING

Demo and social gambling games are not new and, even before the proliferation of video technology, many children's games were comparable to real-money gambling. Smith and Abt[39] argued early on that young American boys gambled for real when they played marbles or were flipping collectors' cards while risking something of value (their marble or collectors' cards) to gain a prize (another player's marble or a desired card). Similarly, if they played just for fun or to pass the time without any actual exchange of marbles, cards or money taking place, they were engaged in an activity that was equivalent to modern day demo/social gambling. Many children's toy stores and supermarkets sell sets of cards or roulette-type games. Some of them are designed primarily with adults in mind (e.g., whisky roulette), but other have been created specifically for children. It may therefore be argued that this phenomenon is old and, as it did not appear to cause much harm to previous generations, modern versions of demo gambling games or gambling-like activities are unlikely to cause any harm to the current generation of children either. However, video games have become much more sophisticated, popular and accessible[40] and their impact on gambling-related problems remains under-explored. Furthermore, current studies often consider social and demo gambling games together, while hybrid games are typically omitted from the analysis. These games, despite similarities, have sufficiently distinctive psychosocial aspects and their differences need to be recognised. When children seek out a demo game on a real gambling website, they would normally do so purposefully, with the intention to either gamble or find out more about gambling, whereas coming across such games on social networking sites may be accidental. This may arise as a result of their being exposed to an advertisement, or receiving a hint from an online friend, or they may just come across it through generic browsing. This means that those who seek out such games may already have a pre-existing predisposition to be interested in this form of entertainment, but this may not necessarily be so if such an experience occurs accidentally.

6.3.1 Demo Practice Games and Social Gambling

No conclusive evidence proving that fun gambling games cause players to move to real gambling exists, but there is strong empirical data arguing that the correlation between playing in a free mode and gambling with real money is unequivocal. The Young People Omnibus annually reported a close association between playing the free games and real-money gambling.[41] Statistical regression analysis[42] carried out on the data previously collected by the 'British Survey of Children, the National Lottery and Gambling 2008–09', published in 2009[43] and based on a sample of 8,893 pupils aged between 11 and 16 years old, had already shown that participating in free practice games on real-money gambling websites was positively correlated to real-money gambling.[44] It was, indeed, further found that gambling for fun was 'the single most important predictor of whether the child had gambled for money in the relevant period and one of the most important predictors of problem gambling'.[45] Such a correlation was not established between playing fun gambling games on social networking sites and real-money gambling.

Correlation does not necessarily imply causation and there are studies which suggest that the association may be merely coincidental. The study by King et al.[46] of 1,287 Australian students aged between 12 and 18 years old, identified that the use of gambling apps on Facebook, smart phones and gambling video games had the strongest positive association with real money gambling, although the size of the observed effects were small to moderate. However, Floros et al.[47] pointed out that those who seek out the free games on real-money gambling websites, as opposed to coming across them incidentally on other platforms, may already have a latent predisposition to be interested in real-money gambling. This may indicate that these two different forms attract individuals with different personalities. In other words, it may be argued that it is not the practice games that encourage real gambling, but that those who are interested in real activities may wish to explore the rules and familiarise themselves with the nature of the games before undertaking any financial risks on real gambling websites. If this holds true, the availability of 'demo' games without any age verification certainly does not help those who may already be at risk of developing gambling-related problems, but it highlights that those games per se may not necessarily contribute to acquiring such problems. The position is similar in the context of adults. A study carried out by Kim et al.[48] with adult participants reported that 26% of social gaming players migrated to online real gambling within six months of starting to play socially. Kim's study tested four predictors of migration: time spent, skill building, enhancement and micro-transactions. Of these only micro-transactions significantly influenced 'the odds of migration to online gambling'. When all predictors were kept at a fixed value the odds of migration dropped to about 2%. Perhaps players who are willing to spend money on their online gaming may find gambling a more attractive proposition because it gives them the opportunity to gain a more tangible reward than social gaming or demo games would ever be able to offer.

Bednarz et al.[49] carried out a study with 80 adult participants in a laboratory setting to determine whether playing practice games increased risk taking in comparison to the control group. Their findings suggested that exposure to winning in a free mode altered the players' perceptions of the game and influenced a riskier attitude to playing, but that those effects were observable only in the short term. This study has not, as yet, been confirmed outside the laboratory setting, but if the findings were validated in a natural environment, it would have important implications for the availability of demo games online. However, the opposite impact also exits. The chance to engage in social gaming, instead of encouraging real gambling, may in fact inhibit such a propensity, as similar needs can be satisfied at a substantially reduced financial cost. Indeed, according to the Harvest Strategy Report,[50] the introduction in Australia of demo/ social gambling games coincided with trends of overall decreases in levels of engagement in real-money gambling and in levels of problem gambling.

6.3.2 Hybrid and Entertainment Games

In the field of hybrid and entertainment games, the available empirical data are even more limited and contradictory. Early research by Gupta and Derevensky[51] surveyed 104 children aged between 9 and 14 years old in 1996. They found that those children who played video games for longer periods of time were also more likely to gamble with money than their peers who played less frequently. However, a subsequent project carried out by Delfabbro et al.[52] in 2009 with 2,669 adolescents aged between 13 and 17 years old concluded that the effect of association became less significant once control, and other factors such as gender had been applied.[53] The difference in the age group of the two samples and the time-lag between them prevent direct comparison. They may indicate that a correlation exists for younger children but not for teenagers, or that cultural changes which occurred in the interim period affected the results. More recent findings from a questionnaire adminis- tered to 65 electronic gambling machine players and 50 regular video game players carried out by King et al.[54] indicated similar results. They found no correlation between video game playing and real-money gambling, or video game playing and problem gambling behaviour. Nevertheless, Floros et al.[55] examined a sample of 2,017 students aged between 13 and 19 living on the Greek Island of Kos, and found a correlation between engagement in online gaming and online real-money gambling, with a particularly 'heavy clustering of 37 of 81 cases of gambling

addition in the most frequent social network user category'.[56] The effect size for the 'correlates of gambling, online gaming and social network user category'[57] were reported to be in the small (0.1) to medium range (0.3).

6.4 FINDINGS FROM THE UK STUDY

Due to the significant paucity of research in this area and contradictions in the limited studies that have been carried out, the author's UK project was exploratory in nature. It aimed to capture how children and young people categorise, construct and react to gambling-like activities, whether they recognise such activities correctly and whether, in their own view, they do or may influence them to be more interested in real-money gambling.

Pupils who participated in the focus groups were recruited from within schools and youth clubs in London and Kent and the sessions run during school hours. The sample was based on 200 active participants in total. An active participant was defined as a pupil who expressed at least one substantive opinion during the discussions. The actual numbers of pupils present in the focus groups were significantly higher overall but those pupils who ended up merely observing or only giving generic endorsement to views expressed by others were not included in the final calculation of the sample size. Twenty-three focus groups were carried out with pupils from Year 10 (14/15 years old), 11 with pupils from Year 12 (17/18 years old) and one focus group was carried out in a youth club (14–19 years old). There were 71 male and 36 female participants from Year 10 and 34 males and 59 female participants from Year 12. The targeted groups were 14/15 and 16/17 years old respectively. These two different cohorts were differentiated by their legal ability to purchase lottery tickets and scratchcards, or to participate in football pools. It was intended to collect data from those who were legally still below the age of most forms of commercial gambling as well as from those who were already allowed to play the lottery and who were coming close to the legal age for all other forms. The younger cohort also partially corresponds to the age group targeted by the quantitative annual Young People Omnibus. This allows for some comparisons to be made. Some of the participating pupils had already attained the legal age of majority and were over 18 years old at the time of the focus group. Although they were not intended to be part of the target sample, they were not excluded from participation. The number of pupils from this category was very small and they were allowed to contribute. This has ultimately proved beneficial as some of them provided very useful insights and where typically keen participants.

As the project was exploratory in nature, thematic analysis was adopted. This method is not restricted to any predetermined theoretical framework.[58] Given that the aims of the study were to identify how the participants experience real-money gambling, what their understanding is and how they feel they are affected by permitted and prohibited forms of gambling and gambling-like activities, a realist method was applied to reflect their perception and beliefs. A realist method reports the 'experiences, meanings and realities of participants'[59] without the influence of the researchers' view who 'stands in the background as an uninvolved observer'.[60] The analysis was carried out in accordance with the systematic analysis process devised by Kruger.[61]

There were, of course, limitations to the study. The risk of young people giving socially desirable answers is always present. Only pupils who were perceived by the schools to have the 'correct' attitude may have been selected. Peer pressure, fear of criticism, or the need to conform to the majority view within the focus groups carries an inherent risk that some pupils may not have expressed their true opinions. However, the author's view is that these risks did not seem to materialise within the present sample. Pupils expressed many polarised views during their, often heated, debates, and were generally comfortable in admitting to their gambling or video game engagement. Nevertheless, most participants attended mainstream education and this may have created a bias by excluding those who were expelled or truant, and those attending schools for pupils with special needs. This does not invalidate the present findings but highlights that the views of minors who fall within the excluded category may have to be studied separately. There is also a risk that children and young people may not necessarily fully or consciously appreciate how their activities truly influence their current or future behaviour. This may cause divergence between perceptions and actual impact.

6.4.1 Video Gaming and Gambling Engagement

Pupils reported widespread and regular engagement in video gaming, with games being easily accessible in both age groups in relation to the number and variety of entertainment/hybrid games played, and the average time spent on the activity. Of the 200 active participants, only nine pupils stated that they were genuinely not engaged in any sort of video gaming, representing 4.5% of the overall sample size. At the initial stage of the discussions, a higher number of participants declared their non-involvement in video gaming, but, during the session, it became apparent

that they were in fact playing several games, albeit more occasionally or with friends. Time spent on the activities varied from playing only during infrequent visits to a friend's house, to playing up to six hours during a school day, and 15 hours at the weekend. Very excessive playing was rare but, for example, Ray (14, m) was described by his friend Joe as a 'crack addict for games'. No average time spent on playing could have been discerned, but many pupils played on a regular, daily basis, as opposed to occasionally, and many admitted to playing every day after school or at work during their part-time jobs. Several pupils from both age groups reported that they used to spend more time playing video games when they were younger than they did at the time of the focus group session, indicating that the peak of their video game participation was well below the age of 14 years old. The vast majority of games played were either free of charge or for a one-off payment, with only a few participants subscribing to strategic games that required monthly subscription payments. Those who paid for subscriptions, either for the game itself or for the live function on the X-box console, were also the ones who tended to report much more intensive and longer engagement that others. The most popular games (defined as being mentioned by every single focus group) were Call of Duty, Subway Surfers, The Sims, FIFA and Angry Birds. The next most popular games (defined as mentioned by at least three different focus groups) were Grand Theft Aut, Assassin's Creed, Fruit Ninja, Marios games (several varieties), Halo, Moshi Monsters and Minecraft. Only negligible differ- ences were noticed in the game choices of the two age groups, despite some of them being PEGI classified as suitable only for those who are over 16 years old (e.g., Call of Duty Classic, Call of Duty Declassified, Halo, Fable II) or for those who are over 18 years old (e.g., Call of Duty Modern Warfare, Grand Theft Auto). Collectively, those aged 17 to 18 years old played fewer of the games rated PEGI 3 or PEGI 7 than those rated PEGI 16 or PEGI 18, whereas those aged 14 to 15 played all games frequently, regardless of rating. Quite interestingly, in the context of free games typically available to be played on tablets and phones, pupils tended to download and play many of them, with most being deleted after a short period of trying out. From the most popular games mentioned by pupils, Call of Duty, FIFA, Grand Theft Auto, Moshi Monsters and Super Mario contain gambling-like elements and were categorised as hybrid games. Other games did not include any gambling- like components and were categorised as entertainment games.

A small but a significant minority of pupils admitted to gambling for money in commercial venues at some point prior to the focus group. Only 12 pupils had gambled more than three or four times in their entire life on prohibited forms of gambling. Significantly more pupils admitted to playing demo and social gambling card games on Facebook or via their mobile phones, as well as playing with families for money or other non-monetary items such as chocolate, grapes, polos and mints. However, no pupil admitted to playing demo slot machines on any gambling websites or social networking sites.

6.4.2 Gaming and Gambling Motivations

The motivations for playing video games were surprisingly consistent between groups and between participants of the groups. The three, main common interrelated themes were: (1) the need for fun, interactive, easy entertainment, and the reduction of boredom; (2) peer pressure, the need for social interaction and competitiveness; and (3) ability to experience activities and feelings that were impossible and/or undesirable in real life. The reduction of boredom and seeking entertainment were the most prevalent motivating factors for playing video games. Many pupils reported that they played because: 'I get so bored at home; there is nothing else to do so I play [Call of Duty]' (Zaki, 14, m) or 'I played I guess, it was kind of boredom because I had siblings but they were quite older so I never really played with them, so boredom' (Twinker, 17, f).

The two aspects of boredom and entertainment linked together, but there was no complete overlap. Some pupils admitted to playing games instead of doing other compulsory activities such as homework or household chores. Jenny (17, f) openly admitted: 'I used games for procrastination. I always avoid doing work and instead I just play games because work is just boring and not fun'. However, only a few pupils recognised or were willing to admit that some of the games were played in order to avoid completing chores, studying, or even engaging in other more active forms of leisure. Games often replaced many other fun activities such as participating in real-life sport, reading and/or watching television. Upon further probing, more vocal groups referred to the convenience and ease of playing video games and the lack of outdoor spaces for teenagers to hang out where no financial expenditure is required, as well as to the games' overall attractiveness and interaction with others that trumped more traditional forms of leisure. Participants explained: 'It is less effort to be honest, like I hate reading ...' (Joe, 14, m) or 'If you think about it, English weather is not really good for playing football outside' (Kane, 14, m). Other pupils focused on the interactive features of the games which made them more immersive. They liked the 'pretty colours, cool graphics' and excitement from playing (e.g., Edgar, 14, m; Laq, 14, f). Kukon (14, m) preferred the games because he liked being able to control what happens, which he found more attractive than, for example, passive activities such as watching television.

The second most popular motivating factor related to peer pressure, social interaction, and competitiveness. All participants acknowledged that, for them, gaming is a normal and highly popular activity. Pupils referred to teenagers' semi-cultural expectation of being involved in gaming in order to fit in, 'be cool' and generally be 'in the know' amongst their peers. This corresponds well to the need to have a profile on a social networking site and be a member of the latest developments such as 'WhatsApp' or 'Snapchat'.[62] Many of those apps are not just used for the purpose intended but as a new method of communication. For example, pupils may use Snapchat with a picture of a wall purely to send a message to their friends and see when this message has been picked up by the intended recipients. Those who did not play were often left feeling like an outsider amongst groups of friends, or were left out from joint conversations. However, the impact on specific individuals was played down by the participants and it seems as if this peer pressure did not influence them to do anything that they did not want to do in the first place. Indeed, the socially interactive nature of gaming (i.e., the ability to play games together and compete with each other), was seen as a positive aspect of the gaming environment that further enhanced the appeal of this activity. For example, Ray (14, m), who was earlier described as a 'crack addict of gaming', argued that the only reason he played so extensively was because of the social interaction and lots of general chatting with friends and other people he met online. This occurred beyond the interaction during the actual play itself. If that aspect was not available, he would not be so involved. Playing with others increased the actual enjoyment of the games for pupils by making it more interactive and more social. This also gave them additional motivations to continue if they were no longer excited themselves, so as not to let friends down, as well as creating topics of conversation during school breaks and other times, thus making the game more competitive. As Badonde (14, m) noted: '[if] you are just playing on the X-box you feel like "oh, OK, I won but it's just a computer" but when you play against others is like "yeah, I beat Jago!!, I beat Jago!!!"'). Success amongst friends in a gaming environment was seen as psychologically very rewarding. Socially, it increased their overall status and gave them 'bragging rights'.

It also gave them a sense of achievement, with instant pleasure and gratification. In Clappy's view (18, m) this is significant. He said: 'The competitiveness of those games is important; you have a leader board, every time you get there and if you are on the top, ... I suppose is always very rewarding'.

The ability to meet new people and learn new skills through the game was cited predominantly by the older teenagers. They recognised that by interacting with others around the world, they learnt something new about different cultures and different ways of thinking. This expanded their overall awareness of the social and cultural differences and nuances in mindsets between people resident in different geographical locations.

Participants' understanding of what activity amounts to a social inter- action varied. This was explored in the context of watching television or watching a friend playing a game without actively participating in the game itself. Most pupils tended to think that mere watching television is a solitary, not social activity, even if watched together. However, they acknowledged that it may lead to social interaction if viewers later meet up and discuss the shows or programmes, or if collective watching involved some additional activities carried out at the same time. These included commenting on the content of the broadcast, discussing the plots or imitating what happens. Consider the following dialogue from one focus group:

> Question – Is watching television a social activity?
>
> Cookie – It depends who you are watching it with and what you are watching; if you are with somebody then it is social.
>
> Timmy – But even than you are not talking; you are not socialising. Forest – Even then; you are just there staring at it.
>
> Hime – You are not doing anything with them; they just happen to be in the same room.
>
> Bubble – You are doing something with them.
>
> Forest – But then *what you are* doing is the social activity, not the watching TV.
>
> Cookie – If you are watching TV and you are imitating what they are doing; this *is* social activity because you are imitating what you see on the TV.
>
> Nugget – But that's what you just said; it's the activity that is social not the watching bit.

The third common theme related to the ability of players to engage in activities that are not possible or that are undesirable in real life. This aspect was indicated by a smaller number of pupils, but, for them, it was the most influential parameter of the game. For Ahsan and Skittles (15, m and 14, f respectively, playing The Sims) it was the experience of something unknown and the freedom of experimenting with their creativ- ity that made the games interesting: 'Because you can do anything to them; like dress them up and you can have pets; a job and a family as well' (Ahsan, m 15) and 'You have like a person and you build the house; it is funny to play it, like creating people and playing together' (Skittles, m, 14). For some pupils, it was the freedom of participating in an otherwise undesirable activity, to escape from social constraints, and to release their stress and anger without real-life consequences, that pulled them into the virtual environment. The need to escape was expressly stated by Niss (18, m) who said: 'When I play computer games I am trying to escape reality; it is a fantasy and I don't connect it to any real thing and it counts for anything including violence'.

A few pupils were drawn into gaming because of the ability to experience activities that they would find impossible to do in real life, either because it was physically impossible for a human to do, or because it was not easily attainable for them due to lack of financial means. For instance, Kenzo (14, m) argued 'Because this is something that you wouldn't be able to do in real life, experience something that you wouldn't be able to experience normally'. Giovani (14, m) also explained his perception: 'Like in Football Manager, you are in control, in games like you wouldn't normally take on [the role] in real life, say you may be studying and then at one point you may be like in control of a team and the responsibilities make it more interesting'.

Finally, other reasons referred to by pupils for playing included the addictive properties of the games that made them irresistible and hard to put down. This was noticeable from many pupils often exceeding the time they allocated themselves, or that had been allocated to them by their parents as a gaming period, along with the intrinsic desire to beat their own high score. The term 'addiction' was used frequently, but most pupils used it in a rather loose sense when they simply referred to playing for a prolonged period of time and not really wanting to give up, as opposed to finding themselves truly unable to stop and suffering negative consequences as a result.

On first examination, motivations for real-money gambling showed many similarities to motivations for video gaming. However, a closer analysis highlighted significant differences in the motivating factors and in the strength of associated emotions. Perhaps unsurprisingly, the most common reasons cited for real-money gambling was the desire to win money, but equal weight was given to the influence of family and friends. For example, Sasha (17, f) bet on the Grand National horse race once a year with her mum who 'won it once and she won a lot so I wanted the same, I thought I would win too'. Similarly, Christiana (14, f) placed a bet on a horse with the help of her dad 'because everyone was doing it'. Claire (17, f) bought a scratchcard because 'all her friends were buying them', and Angel (17, f) played with her friend because he asked her to choose the numbers on Paddy Powers' online roulette, and she did just that. Katy (14, f) who played on a slot machine in a betting shop while out with her brother explained: 'I went with my brother, we were on holidays, he couldn't have left me outside so they let me in; I wasn't allowed to play but my brother let me play; there was no one to supervise me outside so they had to let me in'. The suggestion that they both could have done something else rather than play in an age-restricted venue did not seem to have been seen as a possibility. Jaffa (17, f) betted on the Grand National because her parents placed bets as well. Misty (17, f) expressly focused on family influence as a critical feature in how gambling tendencies are acquired. She said: 'I think, in many ways you copy the behaviour that you see within your family, you imitate what you see so if you are in a gambling environment, you may become a gambler yourself; as you can have the same gambling nature'. Only one pupil (Eric, 17, m) admitted playing online roulette for money, despite dis- approval from his father and lack of awareness from his mother.

A small number of participants played the lottery and bought scratch- cards when they became 16 years old (and legally allowed to play) because they wanted to experience something new that was previously prohibited to them. However, they usually had played only once and had not tried again. For example, Sarah (17, f) played on her 16th birthday just because she could. It was her first and only time when she played a scratchcard and never felt any further desire or need to do it again. Carly's (17, f) first experience with real-money gambling was motivated by escapism, although she may not have recognised that at the relevant time. She said: 'I played on scratchcards ... I just wanted to win ... I had a bad day and I thought that because I had such a horrible day I was going to win to make it better'. Only P3 (18, m) openly admitted to gambling because of an uncontrollable urge: 'I know why I gamble; I gamble because I have a gambling problem ... Slight ... because when I was younger I gambled on slot machines and bit of fruities [fruit machines]; I took it like that you get really addicted to it at that point'.

Actual enjoyment and entertainment factors per se were more notice- able for their absence, with only a few pupils listing these as their main reasons for real-money gambling. For example, Ben (17, m) thought that 'it makes watching football more interesting if you bet on it' and John (17, m) shared similar views.

6.4.3 Recognition of Gambling-like Activities within Video Games

Games containing gambling-like elements were recognised by most pupils, and their recollection was very accurate. The games mentioned were Grand Theft Auto (casino), The Sims 2 (casino within a hotel), Super Mario (mini slot machine), Redemption (card games), Call of Duty (casino and betting on a special match), Moshi Monsters, and FIFA. With regard to Call of Duty, Eric (17, m) explained:

> Yes, there is actually [a gambling element] in Call of Duty. You can gamble ... there is a thing where you can earn more money the more people you kill and then you can do a special type of match. And you bet little bit of this money; if you win you get like ten times more the money back but if you lose the match then you lose all your money.

For Moshi Monsters, pupils explained that this game contains a street where players can buy in-game goods, either with earned points or with real money. Then they can pay for cards with hidden fixed percentages of 0%, 50%, 80% and 100%. If players select the card that is worth 100% they get all their money back and more but if they pick up any other card, they lose all their money. FIFA was an example of a game with a vibrant external market where players can buy or sell virtual points for real money, and where gamers have to use their virtual points in order to get a better footballer. These are drawn at random and this selection is based purely on chance. Those that win are then able to trade their points for real money on markets such as eBay. For some pupils, this constituted a form of gambling-like activity, but it must be noted that not everyone agreed with this. Such trading is incidental to the game itself as many players may never choose to sell or buy their points outside the virtual in-game environment, which probably led to divergence of opinions in this regard. In the vast majority of other games, options to stake tokens or credit to win in-game items are very common but the player typically knows the selection of items that they can win and there is usually no possibility of wining nothing. This removes a substantial element of uncertainty from this process, and for many pupils this removed it from the category of gambling-like activities. Other games listed by individual pupils included Falls (car race betting); Team Fortress 2 (gambling-like activity on unknown content of treasure boxes) and Habbo Hotel (dice game).

Jaffa (17, f) discussed her personal negative experience of gambling- like activities within Habbo Hotel where, at the age of around 13 years old, she inadvertently spent £50 in real money to roll a dice with the hope of winning the other bidder's virtual furniture and accessories. This resulted in her being prohibited by her parents from playing the game altogether. At the time of playing, Jaffa did not realise that she was in fact engaged in gambling-like activity and she did not even realise that she was paying real money for the bidding but she continued to play the dice game in order to recover all the 'furni' that she had already lost. She understood that this amounted to a gamble only when she was older. In many ways, Jaffa's behaviour closely resembled 'chasing losses', which represents one of the characteristics of a gambling disorder, even though she was not even aware that she had been gambling.

The question whether the activities that were identified above should be or are considered as forms of gambling generated polarised responses. The main theme focused on the lack of financial risks (as opposed to financial rewards) with quasi-gambling, as well as the lack of thrill and lower levels of excitement associated with demo/social gambling games; for example:

> The games that are truly for free I wouldn't think about them as gambling at all, nope because I am not gambling anything; you know even though it's a gambling game and they have given me like tokens but I haven't by myself; I haven't gambled anything so I wouldn't call it gambling but the game itself would technically be a gambling game. (P4, 18, m)

Other comments included:

> I know that technically it is gambling but in my mind, I just don't see it as the same thing; there is no real risk. (Twinker, 18, f)

> It is gambling but within a game; it is not real money so not really [is it gambling], it's part of the computer game. (Zulu, 14, m)

> I disagree, because when, if you are not putting actually any money there is no sort of; it's just more like a game, like game to pass time, rather than gamble, there is nothing to win or lose because there is no money; it just becomes basically a recreational game, just to pass time. (Edgar, 14, m)

> There is no risk because you are not losing anything. (Dr J, 14, m)

> If you are not betting any money it is just a card game, not gambling but just fun ... gambling is when you do something to get something so when like you say this is what I am getting if I win or whatever. (Fin, 14, m)

> I think it is much more fun when you are doing it for something you like, it makes you to concentrate more because you want to win; if you lose; like say you lost some plastic chips you are not really gonna care about it, like, and the same if you won it but if you won like a couple of pounds you would be happy about it. (Bob, 14, m)

Pupils did not consider the initial acquisition price as having importance as they paid for what 'they knew they were getting'. Pupils who answered affirmatively to the question of whether the activities identified above should be considered forms of gambling were in the minority. They highlighted the structural similarities of the activities themselves even though they also easily emphasised the distinctions between them; for example:

> I think you are still gambling but you are just not gambling money when you play for points or whatever. (George, 14, m)

> But it is still gambling, you can see actual children putting the coins on mushroom, like they are on a roll and they gonna win; that's sound like sad but they all want to do it for real. (Cookie, 14, m)

> It is still gambling, even though you don't lose money, you can lose credibility among your friends. (Bing, 17, m)

> [It is gambling] because it's still gambling on something ... gambling can be anything; it does not have to be real money. (Snake, 17, m)

> 'It's gambling but I wouldn't say it's very risky. (Sachin, 17, m)

> It is gambling even though you may not take it seriously. (Hobo, 17, m)

6.4.4 Impact of Fun Gambling on Real-Money Gambling

All pupils were unanimous in their view that there are material differ- ences between gambling for real money and gambling for fun. However, their responses were multifarious with regard to whether the demo/social gambling increased the perceived attractiveness of, or increased their overall propensity to, real-money gambling. The main difference related to anxiety when participating in both activities, with real-money gam- bling being considered as significantly more stressful. This, in their view, caused players to be more tense, more focused and competitive and potentially more aggressive. This put some pupils off from even trying, but for others this was precisely what increased the thrill of gambling; for example:

> With gambling for money, you get the fear factor, which isn't for everyone. (Luffy, 17, m)

> I don't do gambling but I can imagine it being very stressful because you can like lose a lot of money (Barry, 14, m)

> If you play with real money, you wan' win more money, you become more competitive, you play hard instead of being lazy, you will try hard obviously because you can like lose a lot of money. (Martin, 14, m)

> The only thing you gamble if it is not for something of value is your, not pride but sort of, you are not really gambling anything it is not of value so it is not really gambling and this makes it less exciting. (Badonde, 14, m)

For some the financial risks were particularly negative; for instance:

> Because playing for money is more competitive and it brings out the worst in people I think, whereas games are more social and gambling you just doing it for yourself rather than having fun (P6, 14, f)

> Sometimes when people like gamble, like when they are playing cards they will get like into the arguments because they think that someone has cheated; so even though there may be still argument in games there will not be as much because you don't really have anything to risk or to care about. (Chad, 14, f)

Alternatively, some of the pupils who gambled for real did not see any appeal in demo or social fun gambling. For example:

> But I don't really know, it's not fun, I don't think it's fun at all if you are not playing with real money. (Eric, 17, m)

> Gambling for fun is so lame, if you gamble for fun it's so boring, it does not make you feel happy with yourself, there is not thrill, no excitement. (P3, 18, m)

With regard to the impact that demo/social gambling may have on taking up monetary gambling, understandably none of the pupils were aware of the relationship that has been discussed in the academic literature. Some suggested that such a link might exist, but all of them displayed the 'third-person effect',[63] whereby individuals believe that particular advertisements, or other actions, have a significantly greater influence on others than they do on themselves, and none of them thought that such a link would be particularly strong. For instance:

> I think there is a link, I don't think it is strong but if you play video games it's like clearly you have got much enjoyment in winnings ... when maybe if you do start gambling you are more likely to get addicted or want to do it all the time. (Twinker, 18, f)

Others addressed the potential learning aspect of practice games and the experience it might bring:

> It would be some practice, if I would then go and really gamble I would be like [I] actually gambled before, not new, although I haven't, so it's like I have already had a great experience. (P1, 18, m)

> Once you know the rules, you want to put real money on it so you can get something real back. (Twig, 17, m)

Some pupils thought that if someone kept winning in the demo/social games they would eventually want to 'try their luck' for real. Those with this view all seemed to appreciate that the odds in real gambling are different to demo gambling, but they still thought that winning in demo games may encourage some to try to play with real money. However, all of the pupils who expressed such views were emphasising that they were referring to what others may think or do, and that such behaviour was not reflective of what they, themselves, thought or did as they were clearly aware of the differences between non-gambling and real gambling. Nevertheless, some of the comments may indicate that practising in demo/social gambling games may desensitise pupils from the stress associated with real-money gambling and disinhibit their previously held feelings of restraint.Others did not think that there was any link at all; for example:

> I don't think there is anything to learn from it, I can't really think how, what you could really learn from that? There are some people who basically go out and try to get better deals and trade with players and they may go on eBay and sell those items [virtual goods] off; so in a way people learn sort of basic economics but I don't think they can learn a great deal about gambling or what is behind the game. (David, 17, m)

John (17, m) also did not think that interest in non-monetary gambling and interest in real-money gambling are transferable because he believed people played such games for different reasons. Some pupils also pointed out that experience of gambling-like activities within video games, or 'demo'/social gambling, may actually be negative in the short-term but protective in the long-term, as it may discourage children from playing for real money. This may result from the exposure to the feelings evoked by a loss, even though no real money was involved. For example, Zulu (14, m) referring to his own experience, said that 'it may teach you some things', which included that an individual may lose, and this may cause the person to feel really upset and realise that it is not worth playing.

6.4.5 Cognitive Misconceptions

All pupils conceded that persistent practice and prolonged playing of video games would enable them to increase their skills and become more successful gamers, although no one was able to recognise that this was because the video games' heuristics specifically permitted the develop- ment of skills. With regard to real-money gambling, only two pupils believed that they were able, to some extent, to control the outcome. Karm (14, m) thought that it

was possible to improve reaction times to better control 'the stop button' on a slot machine in order to ensure that all fruit symbols match. This may be possible on a few types of British slot machines and his perception was not based on any experience with demo/social games. Karm also thought that he could increase his chances of winning by carefully observing the pattern of play on a given slot machine and by choosing the one that has not paid out in a while. Eric (17, m) thought that players were always guaranteed to win on roulette if they play only black or red, and always double the amount after each loss. He also used the demo games as a warm-up in order to learn the rules and discover the odds. Several pupils claimed that their skills may improve their chance of winning in gambling, but they were referring only to those activities where some skill does, in fact, play a part, such as poker (mathematical ability as well as bluffing were both mentioned) and betting on sport (on the assumption that if gamblers know the teams/ horses/sportsmen they may be better at predicting the outcome), while still recognising that their influence is not complete.

The risk of subconsciously becoming excited about gambling due to exposure to gambling-like activities within hybrid games or social gambling (without recognising them as such), materialised for two pupils during their adolescence. However, their lack of understanding was corrected over time and did not necessarily influence their subsequent behaviour. Jaffa (17, f) and Twig (17, f) did not think that they were gambling when they were young and had, respectively, played dice roll in Habbo Hotel with real money or played card games for money with their family. However, they clearly were aware of this once they got older. For Jaffa, the experience of gambling-like activities had had real-life negative consequences, as she had not only lost her virtual furniture that she was keen to have within the game, but also her parents prevented her from continuing to play the game that she liked and enjoyed following her loss of £50 of real money on the dice roll. The parental intervention, despite her immediate displeasure, would have had some protective effects; yet Jaffa subsequently engaged in other types of gambling, including betting on the Grand National horse race. Twig, on the other hand, had fond memories of playing cards with family members for money, despite not realising at the relevant time that this constituted gambling. Her memories did not cause her to develop any desire to gamble for real on any commercial sites or in betting shops.

6.4.6 Analysis

In the introductory part of this chapter, various speculations as to why young people may potentially move from playing demo/social gambling games or hybrid games on to real-money gambling were put forward. The discussion during the focus groups aimed to test some of the hypotheses and the results indicated a very nuanced position. Despite the qualitative nature of the focus groups, some comparisons with available quantitative data can be made. The prevalence rates of video gaming (95.5%) and real-money gambling (15%) within the current sample were directly comparable to the prevalence rates of 99% reported in the Ipsos Mori Futurelab Gaming in Facilities Research for video gaming,[64] and the 16% reported by the Young People Omnibus 2016. This indicates that the sample that participated in the study seemed fairly representative of their age cohort. The findings from the focus groups indicated that, for the sample, these different forms of entertainment represented different propositions. Pupils' recognition of gambling-like activities within video games was very accurate. This suggested a good ability amongst the sample to recognise the structural nature of gambling and to appreciate which components of the game can be influenced, and which depend purely on chance and random events. Only two focus groups reported that they did not come across any gambling activities within video games. Of these, one group did not in fact list any games with gambling-like elements. The other did include such games, indicating potential issues with recognition. Nevertheless, in all other groups, pupils were able to name various games containing not only overt gambling, but also covert types, and to explain why they classified them as such.

Pupils in the present study were making a very clear differentiation between video gaming (including hybrid games and demo/social gambling) and real-money gambling. Video gaming was visibly constructed as a socially accepted, valuable leisure activity amongst all participants. Real-money gambling was mainly considered to be a vice and approached by many of them with misapprehension. It can be argued that this demonstrates that the existence of legal regulation applicable to real-money gambling does, at least to some extent, influence minors with regard to their behaviour. It also reinforces the need to ensure that all activities which encourage minors to try out real gambling should fall within the remit of the Gambling Commission. Nevertheless, most pupils in the sample treated demo/social gambling as just another game, and those who considered it as equivalent to real-money gambling still tended to treat it as a 'less harmful' or softer form. Indeed, those pupils who gambled for real money indicated that their involvement in either video games or real-money gambling was influenced by different motivations. Similarly, those who engaged in social gaming were not necessarily interested in 'trying it out' with real money either, even though some of them thought that others might be. This supports the suggestion, already indicated in the empirical studies of Gainsbury et al.[65] and Floros,[66] that social gaming and real-money

gambling, despite similarities, may attract different types of individuals. This is likely to hold true not only for minors but also for adults.

With regard to motivations, the initial appearance of similarities between video gaming and real-money gambling became less important when further considerations applicable to real-money gambling were considered. Both activities were engaged in due to family influence and peer pressures, to bond with family members, and to experience competitive but friendly banter. The scale and strength of emotions (both positive and negative) were materially greater with respect to real-money gam- bling. The desire to win money, to try their luck, to experience the stress of risking something of value, and the thrill of suspense when something real was at stake were the primary motivating factors. These emotions were also experienced more strongly and had a more lasting effect than those associated with video gaming. Social gambling and video games were instead played predominantly to pass the time or to socialise with others. There was only little evidence that some pupils were attached to a particular game that they liked. The strong preoccupation with money, and the need to risk something of value, meant that the adoption of video-like audio-visual effects in real-money gambling games seemed to have little relevance altogether.

The hypothesis that adolescents may transfer incorrect misconceptions from demo/social gambling or gambling-like activities in video games into real-money gambling with regard to odds, skills, or chance of winning, received negligible support, and only in the context of the former and none in the context of hybrid or entertainment games. The sample generally had an excellent understanding that, while they can improve their skills in a typical video game, this does not apply to gambling (whether demo, social or with real money) unless it is a game where some skills play a part, such as poker or sport betting. Only one pupil thought that he could improve his chances of winning on a slot machine by improving his reaction time when pressing the stop button. He also thought that he could increase his chances by carefully observing the pattern of play on a given slot machine and by choosing the one that had not paid out in a while. As this strategy may indeed work on some old-style British gambling machines, this may not necessarily have been a misconception. Regardless, he was aware that this process only increased his chances slightly and did not offer any certainty or guarantee that he would win. Another pupil used demo games (but no social games) as a 'warm-up' in order to work out the odds or the system so that he could apply this in real-money gambling. However, he was in a significant minority, as most other pupils clearly stated that demo gambling games deliberately misrepresent the odds of winning in order to give the impression that wins are frequent and to encourage the take-up of real-money gambling. In the main, pupils were convinced that this never reflected the true pay-outs. Several participants (with both positive and negative views of gambling) suggested that practice play may ultimately lead players to monetary gambling, especially if during the fun session they kept winning, either against the computer or against other individuals. Some pupils felt that such players may become bored with having no external incentive, or, if winning, may want to have similar feelings but with real money. However, all of them demonstrated the 'third-person effect',[67] as none of them considered that these arguments applied to them, believing that they were not susceptible to such influence and that this would happen only to others.

Some support was given to the suggestion that demo gambling games can be seen as a practice ground to learn the rules or work out the odds. This supports the position advanced by Messerlian et al.,[68] who suggested that such sites may be used for practice. However, they were used for this purpose only by those who were already planning to gamble for real and wanted to experience it and learn the rules in a 'safe mode' first. Those in the sample who already gambled for real money were no longer excited about practice games and did not feel the need to use them. An important insight, not previously recognised within literature, also emerged, demonstrating that, for some pupils, playing video games with or without gambling-like elements, or participating in social gambling games, taught them that real-money gambling is 'not a risk worth taking'. Those pupils lost virtual currency in quasi-gambling and experienced feelings of disappointment. They also recognised that those feelings would have been significantly more pronounced and longer lasting if they had lost real money.

Overall, participants liked being able to experience the fun and enjoyment of playing, as well as the social interaction with their families and friends, without taking any financial risks or exposing themselves to the fear or stress of possibly losing money. This corresponds well to the findings made by Gainsbury et al.[69] that for some players, the demo/ social gambling games represent a less financially risky alternative to real-money gambling which may limit their overall financial exposure. Although losing social games or video games still caused negative emotional responses, these were nowhere near as strong or significant as losing in a real-money gambling, which, for some, generated a substan- tial amount of aggressive and violent behaviour.

6.5 CONCLUSION

Research into gambling-related fields tends to adopt quantitative designs, with qualitative projects being in a substantial minority. Quantitative findings also appear to command more respect within the academic community as well as with policy makers, even though they contribute relatively little towards a better understanding of the reasons behind many phenomena. In the absence of longitudinal studies, qualitative methods are better placed to provide a more meaningful explanation of whether many correlations exist coincidentally or whether indeed one activity influences the other.

The pupils in the present sample clearly viewed real-money gambling and gambling-like activities as very different propositions. Despite simi- lar characteristics, pupils clearly differentiated between activities with real-life consequences and those that only result in losing points or in-game credit in a video game. The former was significantly more important and serious than the latter. Winning, losing, or even playing video games generated substantially lower levels of emotional engage- ment than was the case with monetary forms of gambling. This invoked additional physical reactions of stress, tension, fear, aggression and more intense competitiveness. The views of the sample did not support the initial hypothesis that the cross-over between video games and real- money gambling could be attributed to minors' lack of understanding of the differences between these two forms, or from sufficient similarities in motivating factors. Playing video games alone appeared to have no influence whatsoever on the pupils' choice whether to engage in real gambling or not. For many pupils real gambling, in comparison to video games, was simply too boring and repetitive.

Only a small number of pupils displayed beliefs and perceptions which may have put them at risk from gambling-related harm resulting from demo gambling only. The majority were not involved in playing such games. Those who did, treated those games as a substitution for real gambling. If such an option was age-gated or removed altogether without removing the ubiquity of real gambling at the same time, it could prompt them to try monetary forms of gambling instead. In such a situation, such a trade-off may prove counterproductive. The more in-depth explanations provided by those students clearly indicated that they sought out demo games when they were already intending to try gambling for real. This means that for those pupils demo games did not induce them into trying out real-money experiences, but, indeed, delayed their engagement with them. Nevertheless, the advertising value of such demo games should not be underestimated, and the proposal made by the EU Commission Recommendation 2014/478/EU[70] should be adopted. This recommendation asks Member States to ensure that 'play-for-fun' games used in commercial communications are subject to the same rules and technical conditions as the corresponding 'play-for-money' games. This principle should apply to any social gambling games, irrespective of whether they are considered to be a form of advertising or not and whether they are made available on gambling websites or on social networking platforms. It should be implemented in all jurisdictions regardless of the member- ship of the European Union as it constitutes a good practice. During the free mode, the real-money gambling websites should not be permitted to advertise monetary versions and should not offer inducements to start gambling with real money. They should remain just a game throughout. These measures should also ensure that demo/social gambling games are truly only permitted to be played for points and in-game credits that are not transferable in any form between the players or outside the game itself, but this still permits them to be played by young people. This would address both sides of the argument and would, at least to a large extent, protect vulnerable youngsters, while allowing those who cannot afford financial risks but find gambling attractive a viable alternative. Video games alone may give rise to many other issues, not least the amount of time that many young people spend on them, but their impact on real-money gambling propensity is likely to be relatively negligible.

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