



EPIC RISK MANAGEMENT

Gaming and experiences with spending money in games

Schools across the UK

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Foreword

EPIC Risk Management, a leading independent gambling harm and minimisation consultancy, develops and delivers gambling and gaming awareness educational seminars to educate children across the UK on the potential harms of gambling and in-game spending gaming. Since 2018, EPIC has delivered over 350 educational sessions on gambling to state schools reaching more than 50,000 pupils. As a result of feedback received from schools and increasing awareness of the issues around gaming, in 2020, EPIC introduced elements of gaming within the educational sessions. EPIC Risk Management now investigates experiences related to spending money on in-game purchases and the levels of problem gambling for young people. The organisation contributes to the improvement of the knowledge in the area and understanding of the landscape which is needed to inform effective policy making.

Paul Buck, CEO

EPIC Risk Management

Executive summary

EPIC Risk Management deliver testimonial education seminars which aim to educate children across the UK on the potential harms of gambling and gaming. The organisation investigated then investigated their views on gaming and spending money on in-game purchases as well as the experiences they might have had as a result of this using an online survey. Most of the seminars were delivered face-to-face. The seminar was delivered to 31 schools across the UK and 1,793 pupils completed the survey from August 2021 until February 2022. Different ethnicities were represented among the respondents, albeit most were of White background, 84%. The survey results show that 28.5% of respondents participated in loot boxes/skin betting and that 37% believe that spending money on in-game items is harmful. 19% reported to have gambled in the past 12 months and 0.7% can be classed as being at risk of developing a gambling problem and 0.4% suffer problems with gambling. More than half of those at risk/suffering problems with gambling reported to have sometimes/often also participated in skin betting/loot boxes in the past 12 months. Those who spent money on in-game items reported to have experienced both, negative and positive experiences. Negative experiences include arguments with family and losing pocket money. The average amount spent on in-game items in the past month was £30.24 and the largest amount spent was £500. 3% of students aged 14 or younger reported to have spent £100 or more on in-game purchases within the last month.

Review of relevant academic research

In-game items refer to the types of virtual goods within video games and they have been divided those into different categories: power-ups, expansion packages, playable characters, cosmetics/skins, loot boxes, and time savers (Cai et al., 2022). There has been growing interest in loot boxes, probability-based goods, as research has shown how gambling motivation plays a key role in the process of purchasing loot boxes as players wish to spend less to win more (Drummond and Sauer, 2018). Players enter a gambling-like experience after they purchase and open loot boxes creating the association between gaming and gambling (Cai et al., 2022).

Macey and Hamari (2018) stated that gaming can serve as a pathway which increases the likelihood of developing problematic gambling behaviours due to several factors. One key factor refers to the business models like "free-to-play" and social network games introducing gambling-like mechanics back into video games. A more recent study by Macey and Hamari (2020) discussed the way in which using particular mechanics in contemporary digital games promoted gambling and gambling like behaviours; loot boxes likened to scratch cards and slot machines and been associated with problematic gambling behaviours.

Zendle and Cairns (2018) have demonstrated a clear correlation between buying loot boxes and problem gambling and have shown that the more money spent on loot boxes, the more severe the problem gambling is. The argument is supported by Zendle et al. (2020) and Kristiansen and Severin (2020) who stated that indeed, there is a strong link between loot box and problem gambling, based on expenditure as well as engagement. They stated that loot box spending leads to gambling and regardless of the features of loot boxes, if people spend real money on them then

they are linked in some way to problem gambling. Spending on them leads to the development of biased cognitive schemas and increases in gambling activity.

Drummed and Sauer (2018) portrayed loot boxes as being “psychologically akin to gambling” and Li et al. (2019, p.28) stated that “like gambling, the outcome of loot boxes purchases are initially unknown and ultimately based on random chance or the appearance of chance”. When playing certain games, players can also exchange what they received from loot boxes for real world money on a in-game marketplace as well as third party service. Furthermore, some players can then bet money on the chance of winning an item of greater value. Certain games provide exclusive items in loot boxes which hold a great financial value when traded for money or sold for money and can encourage players to keep buying loot boxes for the undisclosed odds of winning the desired item.

King and Delfabbro (2019) also acknowledged that pursuing that desired item can lead to entrapment with players playing longer and spending beyond their means just to make the prior “investment” worthwhile. Meduna, et al. (2020) have shown in their study that sports and eSports bettors tend to purchase loot boxes and that the demand for gambling products and the demand for loot boxes are closely related.

There have been national debates whether loot boxes can be considered a form of gambling due to the number of psychological, structural and legal similarities. Kristiansen and Severin (2020) highlighted how some jurisdictions already classified some types of loot boxes as gambling activities. In Belgium those bought with real money are considered gambling and in Denmark as well as Netherlands, only those which can be cashed out are considered gambling. Deciding

whether loot boxes can be considered a form of gambling comes with significant implications in terms of protecting the vulnerable consumer groups such as children and young people (Kristiansen and Severin, 2020). Those consumer groups are known to be vulnerable to gambling problems from gaming activities which can involve financial risks.

Data collection and analysis

The EPIC Risk Management survey was administered via an online link to 31 state schools across the UK from August 2021 until February 2022. Each school had its own individual survey shared once the EPIC seminar was delivered. 6,112 students attended the seminar and received the survey and a total of 1,791 responses were recorded; 29% response rate. The data collected was analysed using IBM SPSS Statistics to conduct descriptive statistics and cross-tabulations. Open-ended questions investigating their experiences with spending money on in-game purchases were analysed using thematic analysis. The problem gambling levels were measured using the DSM-IV-MR-J screen, the version used by the Gambling Commission.

Results and findings

This section covers the key findings from the survey regarding loot boxes/skin betting, experiences with spending money on in-game purchases and the problem gambling levels.

SAMPLE AND DELIVERY

- 1,793 responses from 31 schools across the UK
- 84% White, 8% Asian British/Asian, 2% Black British/Black/African/Caribbean, 1% Mixed ethnic background and 5% selected 'other'
 - Of those who participated in skins betting/loot boxes in the last 12 months, 86% are White, 7% are Asian British/Asian, 3% are Black British/Black/African/Caribbean, 2% are Mixed and 2% selected 'other'

- 46% identified as females and 54% identified as males
 - Of those who participated in skins betting/loot boxes in the last 12 months, 15% are girls and 85% are boys
- 24% were 14 or younger, 28% were 15 years old, 30% were 16 years old, 15% were 17 years old and 3.5% were 18 or older
 - Of those who participated in skins betting/loot boxes in the last 12 months, 23% were 14 or younger, 31% were 15 years old, 33% were 16 years old, 11% were 17 years old and 2% were 18 or older

LOOT BOXES AND GAMBLING

- 28.5% participated in loot boxes or skin betting in the past 12 months
 - 14% did it once or twice while 14.5% did it sometimes or often
 - 97% of those were under 18 years old from which 23% were 14 years old or younger
- 19% reported to have gambled in the past 12 months
 - Out of those who gambled in the past 12 months, 5% can be classed as being at risk of developing a gambling problem and 3% can be classed as suffering problems with gambling
 - 58% of those at risk and 88% of those classed as suffering problems with gambling participated in skin betting/loot boxes sometimes or often
- 112 respondents reported that in the past 12 months, they gambled using items including in-game items such as skins

- 31 of those respondents were 14 years old or younger and 34 respondents were 15 years old

IN-GAME PURCHASES

- 37% of respondents believe spending money on in-game purchases is harmful
 - 22% of those reported spending money on loot boxes/skin betting in the past 12 months
- 22% are not sure whether spending money on in-game purchases is harmful

Students were asked whether spending money on in-game items impacted their lives and if that was the case, to give details on how this has impacted their lives. A range of different experiences were reported.

Waste of money

'It seemed like a waste of money thinking back and it annoys me slightly that I wasted my money like that.'

'not really , just wasted some of my money'

'Not really. I have occasionally spent money on online games (maybe around once a year). I used to do a bit more, but I don't do so any more as I don't enjoy it as much and I know it's a waste of money.'

'Wasted money which I could have used on other things'

'Yes, I felt like it was a waste of my money! I couldn't do it again'

'A lot of purchases online I have made have in short term made me feel good but are a waste of money in long term'

'I could have spent it on something much more valuable'

'You lose your money for pretty much nothing.'

'I lost money when I could have saved it for something nice'

Negative experiences

'Kinda became an addition which is hard to stop'

'Yes because it's a loophole because once you buy one thing you want it all'

'I lost £300 on skins when I was in year 10 because I wanted to try fit in, this impacted my relationship with my parents'

'I spent all my money on in-game purchases. It kept me staying up late to see what would come out the next day in the game'

'in 2019 I spent hundreds from my dads bank on ingame purchases'

'Imao once I spent like £80 on my dad's credit card on robux in roblox – twas' like 8 years ago tho so no worries'

'One time I spent around 400 pounds on my mum's credit card'

'There was this time when I was a kid I used my father's money to get games on my phone, not understanding the consequences, I ended up costing him like 60 pound and he said I had to uninstall the games'

'spent too much money on fifa'

'Wiped away my pocket money'

'Yeah because I spent more than intended'

'Yes. It has impacted my life as I have spent money without permission.'

'Yes, I lost my pocket money for 2 weeks after buying the Fortnite Battle Pass in year 7.'

Positive experiences

'It has improved my enjoyment as I spend very little money and in moderation'

'It has made me content as I now have a good character on fortnite'

'Yes it's made me better at games and look cooler other than that no'

'yes makes people scared of me in game. Other than that no'

'Positively, I get to enjoy more content within the games I play.'

'Positively, I knowingly spent my money in games to better enjoy my experience'

'It has improved my enjoyment as I spend very little money and in moderation'

Responsible spend/aware of the harms

'Not really. I have occasionally spent money on online games (maybe around once a year). I used to do a bit more, but I don't do so any more as I don't enjoy it as much and I know it's a waste of money.'

'Not really but I do spend occasionally but not obsessively'

'Not negatively, I was bored with a friend so I betted a £2 skin and turned it into £200 and then stopped and haven't I it since'

'No, I've rarely spent money in game, but when I have it has been leftover from a gift card used to purchase something else (normally >£3 leftover)'

'No, I save up my own money till I know I could spend 20£ online and still have a lot left over, however I don't do this that often, I don't buy that much.'

'No, I rarely buy things in games, I often am worried about spending money, so I often have the opposite issue as I get anxious spending money.'

'No I sometimes spend money on in-game purchases but I have not got addicted or I haven't spent much money on it.'

'No I do it rarely and with a responsible adult and it is only with less than 4 pounds'

'No because it's only a skin or something so it's only like maybe £5 so it's not harmful to my bank if it was I wouldn't do it'

'no as it was only every so often that I bought them so I didn't use all money at once'

'No because I understand the limit and how much is too much'

Money spent on in-game purchases during the past month

Moving on, students were asked whether they spent any money on in-game purchases during the past month and if they did, to provide an approximate of the amount; some respondents stated that they do not remember how much they spent. Based on 227 responses:

- The average amount spent during the past month was **£30.24**
- The largest amount spent during the past month was **£500**
- The lowest amount spent during the past month was **£0.10**
- Other large amounts spent during the past month reported by some students were: **£175, £200, £250, £275, £300**

The table below shows the average, maximum and minimum spent on in-game purchases within the last month by age groups but also the percentage of those who spent £100 or more. Students aged 14 or younger and aged 17 recorded the highest average spent and the highest percentages for those who spent £100 or more. **12%** of those aged 14 or younger and **14%** of those aged 17 reported to have spent £100 or more within the last month.

Age	Average spent	Maximum spent	Minimum spent	% of those who spent £100 or more
14 or younger	£36.84	£500	£0.99	12%
15	£27.26	£420.69	£0.10	6%
16	£27.64	£275	£0.79	7%
17	£37.41	£300	£0.89	14%
18 or older	£17.09	£50	£0.80	0%

- Based on the all participants, including those who did not spent money on in-game purchases within the last month:
 - **3%** students aged 14 or younger spent £100 or more
 - 1% students aged 15 spent £100 or more
 - 1% students aged 16 spent £100 or more
 - **2%** students aged 17 spent £100 or more

Results discussion

In line with previous research by Zendle and Cairns (2018), the results from this paper have shown a link between participation in loot boxes and problem gambling based on engagement. More than half of those at risk/suffering problems with gambling sometimes or often participated in skin betting/loot boxes.

King and Defabbro (2019) stated that pursuing an item can make players play longer and spend beyond their means just to make the prior “investment” worthwhile. The argument was supported in this paper as students spoke about how they either spent more than intended on in-game purchases, spent all their money and stayed up late to see what would come out the next day in the game or referred to it as loophole and once they bought one thing, they wanted it all.

Researchers such as Macey and Hamari (2018) also argued that gaming can serve as a pathway which increases the likelihood of developing problematic gambling behaviour and one student stated that once started to spend money on in-game purchases, it became an addiction hard to stop. Spending on in-game items was associated with theft as a number of students reported to have stolen money/credit cards from their parents to spend in games without their permission. Spending money on in-game items was seen as harmful by 37% of students.

Most of those students who reported to have gambled using items including in-game items such as skins were 15 years old or younger. In terms of the amount spent on in-game purchases within the last month, the highest average spent was amongst those aged 14 or younger and those aged 17 and the highest amount spent, £500, was reported by a student aged 14 or younger. 3% of

students aged 14 or younger also reported to have spent £100 or more on in-game purchases. The results have shown that in-game purchases are far more common amongst the younger population highlighting the importance of protecting the vulnerable consumer groups, children and young people, who are vulnerable to gambling problems from gaming activities which can involve financial risks (Kristiansen and Severin, 2020). Purchasing and opening loot boxes specifically introduces players to a gambling-like experience (Cai et al., 2022) and our results have shown that 97% of those who participated in skin betting/loot boxes were under the age of 18. This again reflects again the importance of introducing measures to protect those who are underage from gambling.

Conclusion and recommendations

This study provides evidence-based information on an area which has been of interest for researchers in recent years and it contributes to the national debates on whether loot boxes can be considered a form of gambling due to the number of psychological, structural and legal similarities. The results enhance the understanding that there is a link between purchasing loot boxes and level of problem gambling and that in-game purchases can be really harmful to young people. Although some students reported positive experience with in-game purchases as they made their games more enjoyable, some students reported to have lost their pocket money because of in-game purchases or spent money from their parents without permission. Considerably more work is needed to identify the impacts the different types of in-game purchases have on young people and to further investigate the amount of money young people spend on in-game items using larger samples. It is also recommended that:

- Education for parents and children on the sale of loot boxes to children should be brought in.
- Regulation on the sale of loot boxes to children should be brought in
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We hope new research continues to look at not only the link between loot boxes and gambling addiction, but also at the harm created by loot boxes directly.

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