Loot boxes: gambling in disguise?

A qualitative study on the motivations behind purchasing loot boxes
Acknowledgements

The authors of this study would like to acknowledge and thank the people who have contributed and supported to the development of this thesis.

First, we would like to thank the tutor, Matthias Waldkirch for all the support and guidance during the process. With his expertise and knowledge, we managed to gain useful feedback and ideas for our topic.

Secondly, we want to express our gratitude to the people participating in this study which have given us great insights and knowledge on the subject. Without them, this study would not have been possible.

Lastly, we would like to acknowledge Anders Melander for the necessary information and guidance from the opening of this process.

Denise Randau
Anh Nguyen
Adrian Mirgoezar

Jönköping 7/12-18
Bachelor Thesis in Business Administration

Title: Loot boxes: gambling in disguise? - A qualitative study on the motivations behind purchasing loot boxes
Authors: Denise Randau, Anh Nguyen & Adrian Mirgolozar
Tutor: Matthias Waldkirch
Date: 2018-12-07
Keywords: loot boxes; gambling motivations; regulations

Abstract
Background: In the last two decades, the rapid technological advancement in digital solutions had paved way for a transition of traditional gambling activities to internet-based platforms. Online casinos with video-game-like features have become a common platform for gambling. Consequently, gambling-like features is increasingly being adopted by mobile- and computer games. The latest example of these features called loot boxes, are getting a lot of attention from gamers and regulators alike.

Problem: Game publishers are reporting hundreds of millions of dollars of revenue from loot boxes and governmental agencies are struggling with determining whether to classify loot boxes as a form of gambling, therefore regulating it. The main reason for this conflict is the lack of empirical studies in the subject.

Purpose: This thesis aims to shed light upon the phenomenon. More specifically, it will do so from the gamers’ perspectives and reveal the underlying motivations for loot boxes activities, as well as their views on loot boxes.

Method: A qualitative approach with semi-structured interviews with twelve participants has been conducted. These findings have later been compared to existing literature regarding gambling.

Results: The findings showed that there are distinct similarities between gambling and loot boxing. In terms of motivations, the same nature is applied for socialization and amusement. Two new motivations were discovered, value-based motive and collecting purpose which are video-game specific. Additional components that influenced both gambling and loot boxing were found to be impulsivity and distorted beliefs. Other than that, the participants see loot boxes as a form of gambling based on the uncanny likeness of the mechanism and the emotional effects. Despite having a negative view on loot boxes, they do not wish the feature to be removed.
1. Introduction .................................................................................. 1
  1.1 Background ............................................................................. 1
  1.2 Problem Discussion ................................................................. 2
  1.3 Research Purpose .................................................................... 3
  1.4 Research Questions ................................................................... 4
  1.5 Delimitations ........................................................................... 4
  1.6 Definitions .............................................................................. 4

2. Frame of Reference ........................................................................ 7
  2.1 Defining Gambling and Online gambling .................................. 7
  2.2 Motivations for gambling activities ......................................... 8
    2.2.1 Impulsivity ........................................................................ 10
    2.2.2 Distorted beliefs ................................................................. 11
  2.3 Problem gambling and non-problem gambling ....................... 11
  2.4 Loot boxes ............................................................................. 12

3. Methodology & Method ................................................................. 15
  3.1 Methodology ........................................................................... 15
    3.1.1 Research paradigm ............................................................ 15
    3.1.2 Research approach ............................................................ 15
    3.1.3 Research design ................................................................. 16
  3.2 Method ................................................................................... 17
    3.2.1 Data collection .................................................................. 17
    3.2.2 Purposive and snowball sampling ...................................... 18
    3.2.3 Semi-structured interview ................................................... 18
    3.2.4 Interview questions ............................................................ 19
    3.2.5 Data analysis .................................................................... 19
  3.3 Ethics ..................................................................................... 20
    3.3.3 Transferability .................................................................. 22
    3.3.4 Dependability .................................................................... 22
    3.3.5 Confirmability .................................................................... 23

4. Empirical findings .......................................................................... 24
  4.1 Background ............................................................................. 26
  4.2 Motivations for purchasing loot boxes ..................................... 27
    4.2.1 Socialization ...................................................................... 27
    4.2.2 Amusement ....................................................................... 28
    4.2.3 Avoidance ........................................................................ 28
    4.2.4 Excitement ....................................................................... 29
    4.2.5 Value-based motives .......................................................... 30
  4.3 Impulse .................................................................................. 31
  4.4 Collecting purpose ................................................................. 32
  4.5 Gambling mentality ................................................................. 33

5. Analysis ...................................................................................... 35
  5.1 Motivations to loot boxes purchasing ..................................... 35
  Socialization ................................................................................... 35
  Amusement .................................................................................... 36
1. Introduction

This section will open with an overview of the background on the current research concerning the activities circling gaming and gambling, as well as a summary of the concept of loot boxes. This will be followed by a presentation of the problem definition, followed by the research purpose and research questions of this study. The section will conclude with a list of various definitions, which will be referred to throughout the rest of the paper.

1.1 Background

Gaming and gambling activities are changing constantly, driven by rapid technological advancement in digital solutions (King, Gainsbury, Delfabbro, Hing, & Abarbanel, 2015). This combined with the increased access to online content has made possible for digital media content and functionality to be spanned and shared across multiple devices and networks (Derevensky & Gainsbury, 2016).

Consequently, the line between gambling and gaming activities are blurring, as gambling activities started adopting gaming features and vice versa. Casino games like Zynga Poker and Pokerist are advertised as social casino games rather than pure gambling platforms (King et al., 2015). Games with strong focus on multiplayer modes between players are implementing in-game purchases. One prevalent in-game purchase feature is loot boxes, an in-game package containing randomized game-items that are either cosmetic (skins for characters or weapons) or pay-to-win (characters and items that improve gameplay) (Freedman, Andrew, 2018). It is a trending phenomenon in the gaming industry and game publishers have introduced the feature into popular games such as Battlefield, FIFA, Counter-Strike: Global Offensive (CS:GO), and Defense of the Ancients 2 (DOTA 2). Occasionally, this feature is free and earned through gameplay but most often it can be bought with real money. Loot boxes and its features are further explained in the frame of reference.

A study conducted by Juniper Research (2018) forecasts that the spending on in-game purchases like loot boxes will generate a total of $50 billion annually by 2022, up from $30 billion in 2018. The game publisher behind FIFA, Electronic Arts (EA), reported a revenue of $800 million for 2017 from its online-service named FIFA Ultimate Team, that features purchase of loot boxes to obtain football players (Handrahan, 2017; King & Delfabbro, 2018b) to create their own online
teams (M. Wright & Krol, 2018). Another game publisher called Activision Blizzard reported the same year a revenue of $4 billion, out of which more than half was from microtransactions, including loot boxes (Blizzard, 2018). These numbers indicate that loot boxing is a very lucrative business concept for game publishers.

The phenomenon of loot boxes has sparked an ongoing debate on whether it should be classified as a gambling activity and be regulated by governmental authorities. Despite an absence of a global consensus from regulators, some countries have advanced in the process of regulating games that features loot boxes. In April 2018, the Belgian Gambling Commission classified loot boxes as a gambling activity, rendering it illegal without a gambling license. Under this legislation, game publishers are forced to remove the feature for games operating in the Belgian market (Hoggins, 2018).

Loot boxes are a relatively new aspect of game activities, which makes the field of study unexplored. Existing academic studies regarding loot boxes do not focus on them as an own concept for in-depth analysis, but rather as a supporting definition to online gambling practices (Macey & Hamari, 2018a, 2018b). In the case of non-academic studies, more relevant information can be found, although only the structural element of loot boxes versus gambling is discussed. Consequently, it would seem premature for governments to introduce legislation without supporting researches (Alaeddini, 2013). Therefore, this study aims to contribute to the body of knowledge in legislating loot boxes.

1.2 Problem Discussion

Despite the heated debate due to the lack of empirical research, governments and operators have yet to clearly determine whether rules and procedures should be taken for social games with gambling-like contents (Derevensky & Gainsbury, 2016).

After the Belgian Gambling Commission’s ruling of loot boxes, games containing this type of illegal gambling activities could face fines upwards of €800 000, alternatively up to 5 years in prison. The Belgian Gambling Commission mentioned games such as FIFA, Overwatch, CS:GO, and NBA2k19 as some of the main offenders. As previously mentioned, EA chose to defy the ruling and according to the CEO of the company, Andrew Wilson, FIFA Ultimate Team card-packs or loot boxes should not be labelled as gambling due to two main reasons: (i) players always receive a specific number of items in each pack, and (ii) EA does not condone the grey market trade of selling and buying in-game items for real money (Hoggins, 2018).
In the United Kingdom, the absence of monetary prizes has enabled operators to avoid gambling regulatory oversight (McBride & Derevensky, 2016). The UK’s Gambling Act from 2005 states that if no real-world money is paid out to players and winning have no monetary value, social games will not be liable to regulation because the virtual currency does not constitute “money’s worth” (Alaeddini, 2013).

However, the existence of a market for in-game items to be traded for real money on online trading platforms and used for betting on electronic sports (eSports) matches, indicates that loot boxes are in a sense an unregulated gambling market (Juniper Research, 2018). Furthermore, this can become the root to a more serious issue as there is a growing body of research implying that early onset of gambling behavior in general is a risk factor for problem and gambling-related harm (Derevensky & Gainsbury, 2016). Additionally, due to characteristics of digital gambling platforms as a medium, online gamblers face a significantly higher risk of becoming problem gamblers compared to offline gamblers (Griffiths, Wardle, Orford, Sproston, & Erens, 2011). An investigation by the United Kingdom’s Gambling Commission (2018) discovered that children between 11-16 years old held arranged bets with in-game items such as skins. The regulation estimates that roughly 500 000 youths under 15 years can be linked. Games such as FIFA has a rating of Everyone (ESRB, n.d.-a), classifying it a game suitable for every age-group (ESRB, n.d.-b). Therefore, children face no obstacles in participating in loot boxes activities. A recent study by Australian researchers confirmed a significant positive correlation between loot boxing and problem gambling (Zendleid & Cairns, 2018). Furthermore, the uncertainty around loot boxes has resulted in society questioning the ethical stance of these big companies who make multi million dollars from potential gambling activities advertised to underaged children.

1.3 Research Purpose

The purpose of this research is two-parted, where both an exploratory and explanatory study will be applied. The first part of the research will be an exploratory study, in the way that it will investigate and examine the motivations to why individuals purchase loot boxes (Collis & Hussey, 2014). The aim is to discover common patterns and reasonings of the interviewees, in order to gain an understanding of the phenomenon investigated.

The second part of the research will be an explanatory study, where the findings from the interviews will be analyzed and compared to the existing studies from the frame of reference regarding gambling motivations. The intention is to look for similarities and differences with the
motivations of purchasing loot boxes, to examine if these motives have a connection amongst each other (Collis & Hussey, 2014).

1.4 Research Questions

RQ 1: *What are the driving factors and motivations for purchasing loot boxes?*

RQ 2: *To what extent is purchasing loot boxes a form of gambling?*

1.5 Delimitations

Several delimitations have been established in this study. The first delimitation is what types of games the study will be focusing on. Because of the current relevancy of loot boxes in video- and computer games in terms of both high frequency of activities and the impact it has on the industry, this study has chosen to focus on these two platforms. In other words, mobile games platform will be excluded.

The second delimitation is regarding characteristics of the participants. With the objective to accomplish an unbiased and accurate comparison with gamblers, there was a search for video- and computer gamers who can legally and individually purchase loot boxes - in this case, people that are at least 18 years of age. Additionally, by delimiting the scope to a minimum spending total of SEK 1 000 per individual, more relevant findings can be obtained to make the study more accurate.

1.6 Definitions

- **Counter-Strike: Global Offensive (CS:GO):** a first-person-shooter, team-based action game, where two teams compete in different (CS:GO, n.d.).

- **Electronic Arts (EA):** publisher of FIFA games. Is an American multinational establishment within digital interactive entertainment. EA produces and distributes games, gaming-content, and online services for platforms such as Internet-connected consoles, mobile devices, and personal computers (EA, n.d.-a).

- **Electronic sports (eSports):** competitive gaming in video- and computer games. Esports tournaments have real-money prizes and the competing teams are normally sponsored by business establishments. Competitions in League of Legends (LoL), CS:GO, Hearthstone, and FIFA are regularly organized (Hamari & Sjöblom, 2017).
• **FIFA**: is referred to as the video- and computer games version in this paper.

• **FIFA Ultimate Team**: is the online-component of the game, where players can create their own football team from scratch by utilizing collectible player items. Not only can the players customize their squad, but they can additionally collect several pieces of equipment, badges, arenas, and coaches in order to make their FUT team more personal and unique (EA, n.d.-b). UT exchanges real money for virtual rewards, as well as stimulating the video game atmosphere for both mobile content and social media (for example Facebook) (Lopez-Gonzalez & Griffiths, 2018).

• **Gaming**: refers to the process of playing electronic games using mobile phones, computers or some type of console or other medium.

• **Hearthstone**: a two-player game under which each contestant has a hero, a pack of cards, and engage in alternating turns. The principal purpose is to conquer the opponent’s hero by combining cards to dispense more damage until the opponent’s hero goes out of health points (Goes et al., 2017).

• **League of Legends (LoL)**: a multiplayer game which circles around holding strategic contests between two teams of five players (Donaldson, 2017), where each player chooses a game character who maintains a heroic or symbolic talent. The players cooperate with both their teammates and the gaming environment, requiring skill and strategy (Gray, Vuong, Zava, & McHale, 2018).

• **Local Area Network (LAN)**: a local area network of computers within a physical space. An example of LAN festivals is DreamHack Jönköping. During LAN events, gamers connect their computers and play with other gamers within the same network (Beal, n.d.).

• **Loot box**: an in-game bonus system where players can earn a random selection of virtual items, in return for real money. The system can be purchased repeatedly, requires no player abilities, and have a randomly determined prize (King & Delfabbro, 2018a).

• **Microtransactions**: small purchases which enable players to receive either additional or bonus virtual in-game content, like virtual objects, levels, or power-ups (M. Gainsbury, Hing, Delfabbro, & King, 2014).
• **Multiplayer gaming**: games with focus on multiple players playing and interacting with each other (Ntina, Ma, & Deng, 2015).

• **Overwatch**: a team-based online multiplayer game between two teams of six players, where every player selects a character with unique characteristics and techniques. Since its premiere in 2016, the game has grown into a popular online game which has formed various competitive leagues with numerous highly regarded competing players creating sponsored teams (Braun et al., 2017).

• **Social casino game**: among the most common subtypes of social games, which regards to games that stimulate casino and different gambling activities, with examples like poker, slots, roulette, and betting. Social casino games are social in the sense of users interacting straight through gameplay, sharing results, and online discussion (S. M. Gainsbury, King, Russell, Delfabbro, & Hing, 2017).

• **Steam**: a digital content distribution channel founded in 2003, by Valve Corporation. It has evolved into becoming a platform for both game creators and game publishers to distribute content and build a close relationship with the consumers (Valve, n.d.).

• **Steam Market Place**: a digital marketplace operated by Steam, where users can sell, buy and trade virtual in-game items. Users can make purchases via Steam Wallet Fund or PayPal/Credit Card. Money from sales can only be transferred to Steam Wallet Fund (Steam, n.d.).

• **Twitch**: a live-streaming platform that offers individuals the possibility to start their own channels and stream their gameplay. The system enables these streamers to display themselves playing, as well as communicating with the viewers in real time (Burroughs & Rama, 2015).
2. Frame of Reference

This section will review existing literature regarding gambling and loot boxes. First, there will be an explanation of the differences between gambling and online gambling, followed by a description of problem gambling and non-problem gambling. A model of gambling motivations will be included, as well as additional determinants that impact gambling behaviors. The section will conclude with explaining the concept of loot boxes.

2.1 Defining Gambling and Online gambling

Gambling refers to an activity in the entertainment industry where risk of losing is at stake, often of monetary value, in the prospect of a higher reward. Online gambling (or internet gambling) refers to gambling activities located on a virtual space and accessed via electronic devices such as computers, mobile phones and wireless devices (Gainsbury, Wood, Russell, Hing, & Blaszczynski, 2012). Being located on a digital platform, online gambling gives users several advantages compared to traditional land-based gambling activities. Amongst these advantages, the most important ones are the undisrupted accessibility, available whenever, regardless of users’ physical locations, and user privacy with no cameras or need to register personal ID (Manzin & Biloslavo, 2008).

The majority of gamblers (95%) gamble recreationally and do not develop any types of problems related to gambling (Pantalon, Maciejewski, Desai, & Potenza, 2008). However, due to high stakes and the concept of “the house always wins”, gambling is often regarded in a negative light, and could develop into an addiction if done regularly (Clark et al., 2013) but some sources state the opposite and instead suggest that there are vulnerability factors that cause problem gambling such as personality traits (Ramos-Grille, Gomà-I-Freixanet, Aragay, Valero, & Vallès, 2015). In 1980, the term pathological gambling became recognized as a psychiatric disorder defined by a lack of impulse control, inability to resist gambling urges and excessive gambling despite potentially harmful consequences (Clark et al., 2013; MacLaren, Best, Dixon, & Harrigan, 2011; Maclaren, Fugelsang, Harrigan, & Dixon, 2012). It is commonly referred to as gambling disorder, but will be referred to as problem gambling in this report, which is normally considered the precursor to pathological gambling (Haw, 2017a). This disorder shares similar characteristics as obsessive-compulsive disorders and is on a compulsive spectrum. These people are motivated by the excitement of winning which has the same effect as a drug-induced high (Maclaren et al.,
2012). It also shares similarities with substance addiction and behavioral addictions (Clark et al., 2013; Ramos-Grille et al., 2015).

People that gamble frequently are likely to develop clinical symptoms of problem gambling by not resisting to the urge of gambling and through heuristics is making it a learned habit (Ramos-Grille et al., 2015). Problem gambling can also arise from a significant win early in a player’s gambling career, since it rewards their behavior and encourages them to continue (Binde, 2013). Three factors that increase the likelihood of problem gambling are (i) unusual gambling motives, (ii) personality traits, and (iii) distorted gambling beliefs (MacLaren et al., 2011). This study has chosen to focus on mainly motivations but will also include impulsivity as the only personality trait, and distorted beliefs, because these are deemed as most important factors that can be generated from the chosen research method. These three factors are further explained in the following sections.

2.2 Motivations for gambling activities

In general, motivation is defined as the internal and/or external force that triggers, directs, intensifies, and leads to the persistence of a behavior (Lee, Chae, Lee, & Kim, 2007). Numerous studies have been conducted on motivations towards gambling with various types of models and factors. The motivational factors are used to give a better insight to what prompts the initiation and persistence of this behavior (Binde, 2013). The model selected for this study is based on the five-factor gambling motivation model developed by Lee et. al (2007) with the inclusion of amotivation. The factors are: (i) socialization, (ii) amusement, (iii) avoidance, (iv) excitement, (v) monetary motives and (vi) amotivation.

**Socialization**

Social motives are linked to social gatherings, interactions and gamblers enjoying the social atmosphere through gambling (Lee et al., 2007). In this category, socialization can play different roles in different scenarios. Binde (2013) divides this factor into three groups, which are (i) communion, (ii) competition, and (iii) ostentation. The first group, communion, is about people participating in gatherings and interacting with others while gambling, such as going to bingo, racetracks, or casinos (Stewart & Zack, 2008). The second group, competition, is about enhancing self-esteem through competing with other players, dealers, or bookmakers, where “winning against the house” is seen as a form of a challenge. The third group is ostentation, which is about showcasing your wins for others in order to gain social recognition and status (Binde, 2013).
Additionally, a fourth group can be added to the social factor, which is the gambling environment. It is explained as the special setting that contributes positively to the social atmosphere. It is about the relief from ordinary life where gamblers can become someone else and adapt to the cultural codes of a specific environment (Back, Lee, & Stinchfield, 2011).

**Amusement**

Gambling is for most regarded as a leisure activity, which it is about the optimal balance between opportunities and restrictions, in order to be perceived as a fun activity (Binde, 2013). Amusement refers to motivations that are triggered by the fun- and entertaining factors of gambling activities. Through amusement in gambling, gamblers gain an elevated positive mood by feeling entertained and joyful (Lee et al., 2007; Mulkeen, Abdou, & Parke, 2017; Stewart & Zack, 2008). It is about enhancing positive moods and enjoyment, whether it is about risk-taking, competition or even socialization (Lee et al., 2007).

**Avoidance**

Avoidance refers to gambling as a coping mechanism for negative feelings such as low self-esteem, anxiety, and can relieve daily stress or tension (Lee et al., 2007). Some gamble excessively in order to escape reality and to experience the mood-changing abilities that games offer. This type of motivation is common in activities such as slot-machines, where the monotony of the game together with excitement can create a trance-like state which detaches the gambler from reality (Binde, 2013). Other motivations that are linked to avoidance are the abilities to relax, vent aggression in a socially acceptable way, or to take mind off worries (Lee, Chung, & Bernhard, 2014; Mulkeen et al., 2017; Stewart & Zack, 2008). It is a form of escapism where gambling is used as a form of temporary distraction from other problems (MacLaren, Ellery, & Knoll, 2015).

**Excitement**

Excitement, or emotional arousal, is normally identified as the second biggest influencing factor to gambling, covering 20% to 35% of the statistics (Lee et al., 2007). Excitement refers to gamblers being motivated by feeling a range of different emotions that triggers the dopamine release of the brain (Anselme & Robinson, 2013), where winning releases a feeling similar to that of a dope rush (Binde, 2013). This biological phenomenon is linked with the intense feelings as well as thrilling experience in risk-taking and uncertainty (Lee et al., 2007), and the mental
challenge of gambling (Mulkeen et al., 2017). Its aspects correspond to reward-chasing and the anticipation of winning, which is at the core of the addictive process (Binde, 2013).

**Monetary motives**

In many observations, monetary motives proved to be the biggest influencing factor to gambling severity, ranging from 40% to 50% of the participants (Lee et al., 2007; Wulfert, Franco, Williams, Roland, & Maxson, 2008). Binde (2013) explains this as the fuel of gambling rather than the real motive behind it, since money is the medium of gambling. Meaning that the chance of winning is at the core of gambling and can be more of a symbolic value rather than being related to pure money.

Monetary motives refer to two outcome-categories: (i) reward and (ii) loss. When it comes to reward, gamblers’ motivations are directly linked to the financial rewards from gambling. There are different types and levels of rewards, such as “win big money with small money”, “make money easy and/or fast”, “need big money” and “may win big money” (Lee et al., 2007), but the amount of money is not as important as its cultural and symbolic meaning behind it but the amount of money is not as important as its cultural and symbolic meaning behind it (Binde, 2013). Furthermore, loss is an indirect motivation to money, as gamblers no longer aim to win new money but to win back previously lost money (Clark et al., 2013; Lee et al., 2014).

**Amotivation**

Amotivation happens when individuals do not observe the connection within one’s personal activities and gambling consequences. It concerns activities that are neither internal nor external motivated. Moreover, it is indicative of gamblers who have suffered their sense of choice and control over their gambling addictions. Amotivation is represented by a gambler who remains to gamble for something out of monotony with no genuine intention, psychologically disconnected and with little feeling of sense, designating a lack of willpower (Clarke, 2008).

2.2.1 Impulsivity

Impulsivity is explained as an impaired behavioral control, which is defined as the inability to resist urges (Blaszczynski & Nower, 2002). It is the tendency to act as spontaneous without considering future consequences while ignoring hard facts (Nigro, Cosenza, & Ciccarelli, 2017a). It is recognized as a risk factor for various mental health disorders and is the only personality trait that is continuously associated with problem gambling (Haw, 2017b; Nigro, Cosenza, &
Ciccarelli, 2017b). This behavior is encouraged through immediate rewards, such as positive emotions and items of value, intrinsic and extrinsic (Kräplin et al., 2014).

2.2.2 Distorted beliefs

In addition to motivations, there are other psychological factors that influence gambling behaviors. According to Clark et al. (2013) and Cowie et al. (2017), distorted beliefs in gambling refer to false or exaggerated underlying beliefs that influence the automatic thoughts and behaviors of gamblers. These mechanisms are referred to gambler’s misconception of randomness, their chance to win and their skills to control the outcomes. These are thought to be important in developing and maintaining pathological gambling (Ciccarelli, Griffiths, Nigro, & Cosenza, 2017; Cowie et al., 2017).

A classic distortion is the gambler’s fallacy where bias in the processing of random sequences, which in short is explained as the belief that a short segment of a random sequence should reflect the overall distribution (Clark et al., 2013). In other words, gamblers are convinced that probability changes depending on past results, instead of complete randomness.

Another concept is the illusion of control, which is the belief that skill is involved in situations that are governed by chance alone (e.g. choosing a lottery ticket or throwing a roulette ball). This distorted belief is found much more prevalent in pathological gamblers than non-problem gamblers (Clark et al., 2013). In a study conducted by Cowie et al. (2017) among Dutch gamblers, there was no evidence to suggest that gambler’s fallacy was stronger than the perception of skills in terms of level of significance to gambling behavior, prompting them equally influential.

A central feature in problem gambling is loss aversion which is the concept that humans react more strongly towards losses than to gains and overestimating small probabilities raises the attractiveness of gambles in cases as the lottery (MacLaren et al., 2011).

2.3 Problem gambling and non-problem gambling

The studies also compared motivations for problem gamblers to non-problem gamblers and found that problem gamblers scored highest on amusement, excitement and avoidance, and lowest on socialization. However, these three motives only influence gambling severity through the mediation of monetary rewards (Lee et al., 2007). Non-problem gamblers scored highest on socialization and lowest on avoidance. Furthermore, gambling problems were associated most strongly with avoidance among women, as opposed to amusement and excitement among men.
Another study which included the financial incentives discovered that money was more important for those in the problem category, while the need to “escape and relax” was more important to those in the non-problem category (Mulkeen et al., 2017).

Amusement is an ambiguous motive since it can affect the player both negatively and positively, dependent on which other motive is present. In the case of monetary motives, amusement functions as an offset to the effect of problem gambling. Players motivated by socialization and amusement had a healthier and sociable gambling that did not directly influence problem gambling. Indirectly however, amusement could facilitate the avoidance and excitement motive which contributes to problem gambling on a mild level. This motivates the player to act on an intense form of excitement through gambling, since it can reduce and alleviate negative feelings such as stress and depression (Lee et al., 2007).

Problem gambler’s also tend to score higher in impulsivity compared to non-gamblers and non-problem gamblers, with impulsivity serving as a positive function of gambling severity (MacLaren et al., 2011; Nigro et al., 2017a). Data from Pantalon et al. (2008) suggests that gambling behavior shares an underlying physiological mechanism linked in impulsivity which is an element of excitement. It indicates that the initiative for the excitement of gambling is connected to weak impulse control. The reducing control of impulse may additionally demonstrate obstinacy in a variety of sorts of gambling, notwithstanding high losses (Haw, 2017a).

2.4 Loot boxes

In short, loot boxes are video-game specific packages containing randomized items that enhance gameplay experience. The feature differs from game to game regarding looks (see figure 1) and how it functions, but the common denominator is the possibility of obtaining rare in-game items. In this study, the term loot boxing will be used to describe the practice of purchasing and opening loot boxes.

![Figure 1. Screenshot examples of loot boxes, left to right: CS:GO, Overwatch, LoL and DOTA 2.](image)
Despite being connected to the digital platform, the origin of loot boxes as a concept can be dated back to the 90s (Wright, 2017). According to Wright, randomized collectible cards had existed longer than that but the 90s was the first time that they were a part of a real game. With the rise of card games such as Magic: The gathering (“Company | Wizards Corporate,” n.d.) and Pokémon Trading Card Game (Pokémon Inc, n.d.), the physical collectible card games became a big success. Like loot boxes, players purchase a pack of cards, unaware of which cards they will receive until they open it (Wright, 2017). The first implementation of loot boxes in video games was in 2006 with a multiplayer role-playing game called ZT Online. In 2013, the only major games featuring loot boxes were CS:GO and FIFA. It was not until recent years that the implementation of loot boxes has become a common practice in new games.

Loot boxes are based on two general classifications: (i) cosmetic and (ii) ‘pay-to-win’. Cosmetic items provide the possibility to alter the image (e.g. look, shape, form, and color) of in-game characters, weapons and other objects. This alteration does not influence the outcome of the gameplay. One example of those cosmetic in-game items that one can gain are skins, which in CS:GO can be used to change the look of weapons and gloves. Valve, the creator of CS:GO, introduced skins in August of 2013 with more than 100 different variations (Sarkar, 2016). Examples of some of the weapon skins in CS:GO are displayed in figure 2.

![Figure 2. Examples of weapon skins used in CS:GO](https://www.polygon.com/2016/7/11/12129136/counter-strike-global-offensive-cs-go-skins-explainer)

The other type of items received from loot boxes are referred to as pay-to-win items (King & Delfabbro, 2018b). They are called pay-to-win because these items can influence the outcome of gameplay. Examples of this kind of in-game items can be seen in games like Hearthstone and FIFA. In the case of Hearthstone, they come in form of cards and are purchased credit cards or other payment methods (Wiki, 2018). The better cards one has in Hearthstone, the better chances to win the matches. In FIFA, players receive players from loot boxes whose attributes can

---

determine the game. These virtual players can be transferred or exchanged between gamers on the game’s own market, FIFA Ultimate Team Transfer Market (EA, n.d.-b).

![Examples of card packages in Hearthstone, to the left and FIFA, to the right.](image)

There are two ways to acquire loot boxes: (i) by direct payment through real world currency or (ii) through virtual in-game currency (King & Delfabbro, 2018b). Loot boxes are one of many types of microtransactions in video games, a type of in-game transactions that are very small (per unit) in nature, hence the word micro. The price of loot boxes vary depending on the game and in CS:GO the player earn loot boxes from playing, but have to purchase the key for €2.2 to be able to open it. In certain games, in-game items generated from loot boxes can later be sold, used for betting, or exchanged for real-world monetary value through online marketplaces such as Steam Market Place (Juniper Research, 2018), with prices varying from a couple of cents to several hundred dollars (Knoop, 2017).

It is essential to remark that there could exist a discrepancy within real-world currency and virtual currency, according to how much virtual currency is obtained. The reasonings are due to the players’ incentives to buy extensive amounts of virtual currency, to contain numerous sorts of discounts. Furthermore, it is also common for the virtual currency to be considerably larger in numerical value compared to real money, which may have the outcome of concealing the actual expense of the transaction concerning the players (King & Delfabbro, 2018b). Even though the game developers insist that the choices to purchase loot boxes are not required for either play or performs advancement when playing their games, the players believe that overspending on these in-game rewards will optimize their gaming activity (King & Delfabbro, 2018b).
3. Methodology & Method

3.1 Methodology

The first part of this section will present the methodology of the research, which includes the research paradigm, research approach, and research design. The second part will introduce the method of this research, which will discuss the data collection, the sampling method, as well as the types of interviews will be conducted. The last part of the section will circle around the data analysis, and end with the research ethics of this study.

3.1.1 Research paradigm

Research methodology emphases on the concept of how a research should be commenced while methods refer to various procedures and techniques to both find and evaluate data. This is where systems like surveys, interviews, quantitative, and qualitative analyses come to practice (Saunders, Lewis, & Thornhill, 2016). Research paradigm applies to the sort of philosophical framework that serves as a pattern on how a scientific research should be led (Collis & Hussey, 2014). It is by the research paradigm where one will underpin the methodological alternatives, research strategies, and techniques concerning data collection (Saunders et al., 2016).

To answer the research questions, a research paradigm in the form of interpretivism will be utilized. The paradigm was selected due to allowing for a subjective and interpretive understanding of each participants experience with loot boxing (Collis & Hussey, 2014). It is used to gather an understanding on what the concept of loot boxes means in the world of in-game purchasing, as well as uncovering the conscious explanations and motivations that gamers have for purchasing these types of packages (Lin, 1998). Furthermore, as the research is dealing with the field of purchased loot boxes in the gaming community, it could lead to various types of responses and reflections to why gamers deal with loot boxes, indicating that observations will be heterogeneous as well as subjective (Collis & Hussey, 2014).

3.1.2 Research approach

By using an interpretive approach, there will be an inductive reasoning, where there will be a collection of data to which a theory will be developed as an outcome of the data analysis (Saunders et al., 2016).
In the case of this research, it will work as follows:
(i) Conducting an observation on the motivations behind purchasing loot boxes;
(ii) Comparing this observation with gambling motives based on existing theories in gambling;
(iii) Determine the extent of loot boxing as a form of gambling.

Moreover, this research study will additionally employ a comparative approach. When it comes to a comparative approach, it highlights on designing a framework which enables comparisons to be done. This kind of comparative approach will study the event that various data sets are analyzed so the outcomes of those may later be compared (Saunders et al., 2016).

As far as to this research, the researchers want to also further investigate to what degree buying loot boxes could be viewed as a gambling activity. In order to investigate it, there will be a collection of data from interviews of individuals who are acquiring loot boxes to further obtain a perception of their motivations for their purchases. Furthermore, there will be a comparison of the various motives among individuals who are acquiring loot boxes to the gambling motivations, which was gathered in the frame of reference.

To summarize, to understand whether purchasing loot boxes can be considered as a form of gambling, an investigation on gamers’ motivations is necessary, which will be handled through an inductive approach.

3.1.3 Research design
A research design is an overall plan on how researchers will go about when attempting to answer and explain the research questions. When it comes to this research, a qualitative study has been chosen where the approach is to look for the various preferences, motivations, and actions for gamers wanting to purchase loot boxes. Such answers are not deemed suitable to be answered by a quantitative study (Lin, 1998). Furthermore, the usage of a quantitative study is more common when it involves obtaining data that are numerical (Saunders et al., 2016), hence more appropriate in a positivist study (Collis & Hussey, 2014). In addition, the qualitative data will be appropriate as the intention is to conduct interviews with gamers that engage in purchase of loot boxes. This will offer the participants room and flexibility to fully convey their reflections in the interviews (Collis & Hussey, 2014). Furthermore, the purpose of this research is to obtain rich, subjective, and qualitative data that contributes purposeful and valuable insights to the formulated research questions.
3.2 Method

3.2.1 Data collection

When gathering data, the methods used for this report will be based on primary data that is generated from the empirical findings from the interviews (Collis & Hussey, 2014). Secondary data will be collected in form of academic literature, and since loot boxes are a relatively new phenomenon, the scientific literature around the subject is scarce, hence non-academic literature will also be used to enrich the frame of reference. The aim is to explore whether there are common themes and patterns with existing literature on gambling. These findings from the interviews will be compared to the frame of reference in the field of gambling. In the process of examining the primary data, there will be a reduced selection of the pieces of data that prove useful in the analysis. The details of each interviews are presented in table 1.

<table>
<thead>
<tr>
<th>Participant</th>
<th>Age</th>
<th>Date of the interview</th>
<th>Duration (min)</th>
<th>Type of interview</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>25</td>
<td>30th October</td>
<td>25 min</td>
<td>Face-to-face</td>
</tr>
<tr>
<td>2</td>
<td>23</td>
<td>30th October</td>
<td>25 min</td>
<td>Face-to-face</td>
</tr>
<tr>
<td>3</td>
<td>23</td>
<td>13th October</td>
<td>60 min</td>
<td>Face-to-face</td>
</tr>
<tr>
<td>4</td>
<td>20</td>
<td>29th October</td>
<td>25 min</td>
<td>Telephone</td>
</tr>
<tr>
<td>5</td>
<td>22</td>
<td>31st October</td>
<td>25 min</td>
<td>Face-to-face</td>
</tr>
<tr>
<td>6</td>
<td>25</td>
<td>31st October</td>
<td>30 min</td>
<td>Telephone</td>
</tr>
<tr>
<td>7</td>
<td>28</td>
<td>31st October</td>
<td>25 min</td>
<td>Telephone</td>
</tr>
<tr>
<td>8</td>
<td>23</td>
<td>6th November</td>
<td>30 min</td>
<td>Face-to-face</td>
</tr>
<tr>
<td>9</td>
<td>23</td>
<td>8th November</td>
<td>50 min</td>
<td>Telephone</td>
</tr>
<tr>
<td>10</td>
<td>24</td>
<td>9th November</td>
<td>50 min</td>
<td>Face-to-face</td>
</tr>
<tr>
<td>11</td>
<td>24</td>
<td>6th November</td>
<td>35 min</td>
<td>Face-to-face</td>
</tr>
<tr>
<td>12</td>
<td>22</td>
<td>20th November</td>
<td>35 min</td>
<td>Face-to-face</td>
</tr>
</tbody>
</table>

*Table 1. Information from each interview*
3.2.2 Purposive and snowball sampling

The primary method used for sampling in this study follow purposive sampling, which is used to specifically select participants that are appropriate to the study (Saunders et al., 2016). The criteria for the interviewees were being above the age of 18 and having spent more than SEK 1 000 in loot boxes. The criteria were deemed important, since the purpose is to explore the motivation of adults that have experience in purchasing loot boxes. The secondary method used is snowball sampling, which allows the researchers to recruit other participants from the participants’ personal network (Collis & Hussey, 2014). This way of networking has caused an expansion of the sample of participants and is used to recruit hard-to-reach subgroups. The ethicality of snowballing can be questioned since it can be a form of name-calling, but since the participants were not asked to identify or cold-call their acquaintances, but instead would encourage others to come forward, this was deemed appropriate.

In this type of research, the combined method of both purposive and snowball sampling is applicable since the intention is to find individuals that are actively purchasing loot boxes and who are willing to participate in the study. It also enhances the credibility of the prospect-interviewees because their loot boxing history is confirmed by other individuals.

3.2.3 Semi-structured interview

Empirical data is collected through conducting interviews with individuals who have experience with loot boxing activities. The interviews are semi-structured which allows new ideas to be brought up whilst exploring set themes. Since this study is in the research paradigm of Interpretivism, the interviews aim to examine the subjective motivations and factors for loot boxing (Collis & Hussey, 2014).

Prior to the interviews, all participants were informed that they would be anonymous. This was done to eliminate the risks of the participants not willingly to give trustworthy answers.

There will be a conduction of face-to-face interviews, with a thematic analysis of the primary data. Thematic analysis is a valuable method to include as one of the purposes of this research is to investigate common themes and patterns that occur (Saunders et al., 2016). There will be a semi-structured interview with open-ended questions to give interviewees the opportunity for longer and more elaborated answers. This is to obtain a deeper knowledge as opposed to questions that solely result in short factual responses. As well as encouraging the interviewee to talk about the main topic of interest and allowing other questions will be developed (Collis & Hussey, 2014).
3.2.4 Interview questions

The aim of the interviews is to explore what factors and motivations are the most prevalent among the people purchasing loot boxes. Questions about background and gaming experience, are asked to give a general picture of the interviewees as well as allowing for possible comparison. Since loot boxes vary depending on the game, it is important to distinguish what type the participants play, so that the motivational patterns can be better analyzed.

The main questions are based on the literature presented in the frame of reference, such as the five-factor model which consists of five motivations for gambling. This is so that the motivations from the interviewees can be compared to that of gamblers, which otherwise might be overlooked. Questions regarding gambling and the participants view on the matter was also brought up in the end of the interviews. One of the last questions in each interview was regarding whether the interviewees themselves consider loot boxing to be a form of gambling. The question was placed last to prevent getting biased answers in the other parts of the interview, and still be able to get the opinions from the people who engage in these types of activities. Important to note is that the interview questions are not limited to only finding factors related to the literature or the researchers own assumptions but are open-ended so that all possible aspects can be fully explored.

Since the start of the interviews, the questions have been adapted to better fit the purpose of the study, and to explore new interesting aspects uncovered from earlier interviews. This means that the questions in Appendix 1 was used for the first seven interviews, while Appendix 2 was used for the remaining five. Some of the changes include removing a question regarding income, which was deemed invalid since the participants have engaged in loot boxing for several years and some have had their economic situation changed drastically. So instead, context to their spending was deemed more appropriate than having monthly income specified.

The interviews lacking answers to the updated questions were completed either by mail or by phone.

3.2.5 Data analysis

There will be a usage of thematic analysis for this research study as the aim is to find both common themes and patterns of the findings, which transpires these various interviews. Those findings will later be further investigated, where the researchers will begin by coding the data to recognize patterns to next examine those who will be attached to the two research questions. This approach
can serve with either a large or small set of data, which guides to a variety of rich information (Saunders et al., 2016).

The process of the data analysis, applying the thematic analysis, will begin with transcribing each interview conducted, in order to gain an overall thought of the collected data as well as trying to develop different approaches on how to implement these for the analysis. The second step will be to code the characteristics and features of each of the transcribed interviews, in consort with attempting to explore themes that could be appropriate to examine. In the case of this research, the principal themes will be the multiple motives that the various participants hold when acquiring loot boxes. The researchers will additionally need to refine certain themes and the relations between them, so they can present a well-structured analytical framework. The last step will be to analyze the selected themes to the research questions, literature and produce a report of an overall narrative that the analysis reports (Saunders et al., 2016; Vaismoradi, Turunen, & Bondas, 2013).

The qualitative data has been sorted into two major themes, with the motivation theme being divided into six parts to best fulfill a storyline where the purpose and research question are emphasized. This keeps the thesis focused and less likely to study irrelevant themes, while maintaining the findings in an organized manner for simplification. The data is sorted and categorized into codes. During the process the data is being compared to find commonalities and to find the relationship between the codes so that it can be interpreted. This is a continuous process where the data is compared to theories and so forth.

3.3 Ethics

Ethics in research refer to the various sets of standards in terms of behaviors. These behaviors will guide one’s manner in relation to the rights of those who either are the topics of the study or affected by it. Ethical issues can emerge at all stages of the research (Saunders et al., 2016) and are often disregarded until confronted by it (Collis & Hussey, 2014). Hence, ethics is a significant phase for the care of one's research (Saunders et al., 2016).

One of the most critical principles in ethics is not to oblige any participant in taking part in the study (Collis & Hussey, 2014). When first approaching people who the researchers considered matched the profile, the first obligation that was handled from the researchers' side was to ask if they would volunteer to participate in interviews. All participants were provided the information to what the objective with the research was, including what the researchers desired to achieve with it.
To ease the interviewing process, the interviews were conducted in relaxed settings and in a comfortable timeframe. In some circumstances, there were certain individuals who did not have the possibility to have a face-to-face interview. Hence the interviews were conducted over the phone.

3.3.1 Anonymity and Confidentiality

Once people have agreed to partake in the research, it is crucial to remember that they yet preserve their rights. For instance, the participants had the right to withdraw from the conversation and may refuse to share private information (Saunders et al., 2016).

Prior to the interviews, all participants were informed about their anonymity in the study. This generates a higher response rate, increased honesty, as well as urging greater freedom to express themselves in more detailed answers (Collis & Hussey, 2014). That is why all the participants in this research are referred to as numbers, as opposed to their real names. Considering this is a semi-structured interview, the researcher urged the participants to articulate in a free manner as the aim is to gain a deeper understanding of their views.

Confidentiality is another important aspect in obtaining access to individuals (Saunders et al., 2016). This is usually connected to anonymity, in the sense that anonymity of multiple subjects (in this instance the interviewees) are viewed as a sort of tool utilized by the researchers in order to maintain confidentiality of their sources. Fundamentally, one can hold confidentiality necessary in keeping trust amidst the researchers and the interviewees (Novak, 2014). In order to build trust, the researchers ensured that the information will be for this study only and will not be traceable back to them.

3.3.2 Credibility

One of the most significant portions in establishing trustworthiness is to ensure credibility (Shenton, 2004) and a study is credible when it displays genuine descriptions, where the researchers can explain how each one was concluded from the descriptions (Koch, 2006). Conducting semi-structured and in-depth interviews can reach a high level of credibility (Saunders et al., 2016), which was implemented for this research. Moreover, there should include some key preparations when managing interviews and the researchers attempted to utilize these measures as much as possible.
The first preparation was that each researcher needed to be informed about the subject of loot boxes and how the process serves when acquiring those. Additionally, all researchers required a level of knowledge concerning the gambling motives from the Frame of Reference to be capable of developing the questions. This will result in triangulation, where the use of multiple researchers results in data being cross-checked (Guba, 1981). In this instance, there will signify a difference of motivations as to why individuals are acquiring loot boxes, which later can be applied to see if the various data are in line or in opposition with each other.

The second preparation was to try to produce interview themes in order to notify the interviewees what sorts of data the researchers were interested in. This was principally received from the pieces of literature gathered as well as the variety of theories considered for the research, in this case, gambling motivations.

3.3.3 Transferability

Transferability is regarded with whether the findings can be implemented in another situation, that is adequately related to generalization (Collis & Hussey, 2014). Considering the findings of a qualitative research are particular to a small number of specific settings and individuals, it could be viewed as impracticable to show that the findings and results are suitable to other circumstances and communities (Shenton, 2004). Although, it is necessary to present a full description of the research questions, findings, and emerging discussions of one’s investigation. The purpose is that this will enable other researchers to design a research study that is alike though could be applied in a separate (yet relatively suitable) research setting (Saunders et al., 2016).

Additionally, the research context must be defined in an adequate way, in order for the readers to form a judgment of the transferability (Koch, 2006). In the event of this research, as there will hold a purposive sampling, the intention is to maximize the scope of information uncovered from the various interviews. Consequently, there will be a development of full description in order for the researchers to reach observations about the eligibility among other possible contexts (Guba, 1981).

3.3.4 Dependability

Dependability focuses on whether the research processes are organized, thorough, and clearly documented (Collis & Hussey, 2014). One of the procedures to ensure that a research study is dependable is through a process of auditing, to which the researchers assure that the process of their research is legitimate, traceable, and well documented (Tobin & Begley, 2004). An example
was that all the three researchers were present at all the interviews, in consort with that all the conversations were recorded (with permission from the interviewees). This provided the researchers the possibility to listen to the content repeatedly in order to check the confirmability, which will be explained in the next segment.

3.3.5 Confirmability

The concept of confirmability is about setting the data, information, and explanations of the findings to be explicitly obtained from the reference itself (Tobin & Begley, 2004). This is where the investigators require to assure that the findings are the result of the activities and views of the informants, as opposed to the attributes and decisions of the investigators themselves (Shenton, 2004). That is why the researchers in this research study did not attempt to embed their own views and understandings on the subject.

Furthermore, the application of triangulation was appropriated in this research in which the purpose was to decrease interview bias (Shenton, 2004). More specifically was the data triangulation, which includes a set of data from various individuals, in order to obtain multiple perspectives on the motives of purchasing loot boxes. It also provides a deeper understanding of the phenomenon that is being investigated (Carter, Bryant-Lukosius, DiCenso, Blythe, & Neville, 2014).
4. Empirical findings

This section will present the empirical findings from the interview conducted, which is related to RQ1. It will start with two table which shows some information regarding the participants and their various motivations for purchasing loot boxes. The section will continue with giving some background in the interviewees and their motivations for purchasing loot boxes (this time, written as a text).

Basic information is presented on table 2 for simplification, while the rest of the information gathered throughout the interviews are described and compared in the upcoming sections, to better display the various factors and motivations of each participant, as well as their own opinions regarding loot boxes.

<table>
<thead>
<tr>
<th>Participant</th>
<th>Age</th>
<th>Gender</th>
<th>Occupation</th>
<th>Higher Education</th>
<th>Types of games</th>
<th>Years played</th>
<th>Total money spent (SEK)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>25</td>
<td>Male</td>
<td>Student</td>
<td>Yes</td>
<td>CS:GO</td>
<td>5</td>
<td>3 000</td>
</tr>
<tr>
<td>2</td>
<td>23</td>
<td>Male</td>
<td>Student</td>
<td>Yes</td>
<td>CS:GO</td>
<td>3</td>
<td>1 300</td>
</tr>
<tr>
<td>3</td>
<td>23</td>
<td>Male</td>
<td>Student &amp; Work</td>
<td>Yes</td>
<td>CS:GO</td>
<td>6</td>
<td>10 000</td>
</tr>
<tr>
<td>4</td>
<td>20</td>
<td>Female</td>
<td>Work</td>
<td>No</td>
<td>CS:GO &amp; LoL</td>
<td>4</td>
<td>2 000</td>
</tr>
<tr>
<td>5</td>
<td>22</td>
<td>Male</td>
<td>Work</td>
<td>No</td>
<td>Overwatch &amp; LoL</td>
<td>2</td>
<td>5 000</td>
</tr>
<tr>
<td>6</td>
<td>25</td>
<td>Male</td>
<td>Work</td>
<td>Yes</td>
<td>CS:GO</td>
<td>5</td>
<td>16 000</td>
</tr>
<tr>
<td>7</td>
<td>28</td>
<td>Male</td>
<td>Student &amp; Work</td>
<td>Yes</td>
<td>FIFA</td>
<td>3</td>
<td>4 000</td>
</tr>
<tr>
<td>8</td>
<td>23</td>
<td>Male</td>
<td>Student</td>
<td>Yes</td>
<td>Hearthstone</td>
<td>2</td>
<td>1 000</td>
</tr>
<tr>
<td>9</td>
<td>23</td>
<td>Male</td>
<td>Student</td>
<td>Yes</td>
<td>Overwatch</td>
<td>2</td>
<td>3 000</td>
</tr>
<tr>
<td>10</td>
<td>25</td>
<td>Male</td>
<td>Working</td>
<td>No</td>
<td>Hearthstone</td>
<td>4</td>
<td>30 000</td>
</tr>
<tr>
<td>11</td>
<td>24</td>
<td>Male</td>
<td>Student</td>
<td>Yes</td>
<td>CS:GO</td>
<td>5</td>
<td>5 000</td>
</tr>
<tr>
<td>12</td>
<td>22</td>
<td>Male</td>
<td>Student &amp; Work</td>
<td>Yes</td>
<td>FIFA</td>
<td>4</td>
<td>5 000</td>
</tr>
</tbody>
</table>

Table 2. Compilation of interview participants

Statements provided by each participant will be referenced in-text in form of a number, either as ‘participant #’ or (#), corresponding to that presented in table 1. This allows for similar statements to be grouped together, so that differences and similarities are easier to identify.
<table>
<thead>
<tr>
<th>Participant</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of items (Cosmetic or Pay-to-win)</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>PTW</td>
<td>PTW</td>
<td>C</td>
<td>PTW</td>
<td>C</td>
<td>PTW</td>
</tr>
<tr>
<td>Socialization</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Amusement</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Avoidance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excitement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Monetary motive</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amotivation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value motive</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Collecting</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impulse</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regret</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Distorted beliefs</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Considers loot boxing to be gambling</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Table 3. Compilation of motivational patterns
4.1 Background

The interviewees in this study are young adults that have been playing games for many years. Several of them have continuously bought in-game items for a few hundred SEK a month, even since before turning 18 years old. The games that the participants have invested most in respectively are the same as the games most played. Participant 5 explains it as: "The more you play something, the more you’re willing to spend on it". Pointing out that there is no purpose in buying something for a game you only play once a month.

The amount of money spent on loot boxes differ for each participant and varies depending on several factors such as amount of disposable income and game engagement, making the latter more important since loot boxes are quite cheap, thus plenty could be bought without sacrificing other needs or wants. Participant 1 and 5 reported that the amount of money spent on loot boxes was not excessive because living at home meant no other expenses. A similar conclusion is made by 2, 7 and 8 which explain that it never affected their needs, so it was never a problem. However, some players that were never affected economically regretted it somewhat in hindsight (3, 4, 6 & 9-12), but could justify it since they most likely would spend it on something else (3 & 4). Besides, players get plenty of use from the items, so it should not be regarded as a waste (1, 5 & 10).

Players found out about loot boxes in various ways and several times got inspired by other people getting rare items. Most first found out about loot boxes by simply playing the game (1-3, 6 & 8-12), such as in CS:GO where crates are randomly given to players at the end of a game and to open one of these cases requires a key to be bought for €2. While 5 and 7 found out through interacting with friends. Even watching clips from YouTube (4) or game streamers opening hundreds of boxes could inspire and influence players to buy more. For some, it became an integral part in the gaming culture and even though some considered it to be unnecessary at first (2).

The primary reason for buying loot boxes is to receive items, but it also gives an added value through the characteristics and mechanics of the process, which in many ways elevated through the internal motivation of continuous buying. The items earned through loot boxing gives a separate form of satisfaction and can in many ways enhance gameplay, depending on if the item is functional or decorative. For functional items, the benefits are more obvious since it gives the players an advantage in the game and can increases the likelihood of winning that makes the game more fun.
“If you have a pack of cards, you get the standard cards from the beginning. However, you want to play a game that is competitive and then you need to buy these cards.” (8)

The same applies for decorative items that heightens the experience through modifying features which can change how the player perceives that game. Such as the case with participant 5 who uses cosmetic items to avoid playing against the same champions with the same basic skins, or to show other players what characters the person is good at, and therefore willing to spend money on.

4.2 Motivations for purchasing loot boxes

4.2.1 Socialization

A common pattern in the interviews is the social factor for buying loot boxes, which consists of communion, competition and ostentation. In the first group, this often includes buying and opening boxes together with friends (1, 3, 6 & 12), doing it while streaming (4 & 6) or talking to friends at the same time (2, 5, 8 & 11). Players either stream themselves opening loot boxes or watch someone else streaming. While watching other streams, our participants reportedly felt the urge to purchase their own loot boxes (4).

Socialization is also important due to Overwatch, CS:GO and LoL being cooperative games where the players are dependent on others in their respective teams, which generally requires socialization. So commonly, these games are played with friends, unlike Hearthstone and FIFA which are one-versus-one games that can be, but not limited to, playing online against other players. However, even in these games, socialization plays an important part, such as the case with participant 12 that would open loot boxes with friends during sleepovers.

Competition is the second aspect of socialization, and in the case of loot boxing it is mainly about receiving a good item or having better items than what a friend might have (3). In pay-to-win games, the main incentive is to win, so gaining the right cards are important than the actual loot boxing. All aspects of socialization are brought up in the 17th question (see appendix 1) where the participants are asked the difference between loot boxing in multiplayer games versus single-player games. All participants reported it to be more important in multiplayer games due to several factors, such as being able to share the experience with friends, doing it out of rivalry or showcasing your skins. Even players who loot box for internal incentives and not for attention, see it as more entertaining when sharing the experience with others.
Based on the answers on the 4th question, “Why did you purchase loot boxes?” the interviewees that purchase cosmetic loot boxes can be divided into two groups. The first group includes participants (3, 4 & 6), who purchase loot boxes for recognition or attention from other players, rather than wanting to buy them solely for themselves (1, 2, 5 & 9). Such as the case with participant 3 who did it to become popular and get attention, or participant 4, who explains in her interview that she shared some of her loot box wins on social medias because she wanted to “Show that you are lucky. Show that you have something that others may not have.”, which is consistent with the concept of ostentation.

Participant 11 had a more diffuse answer in which he explained that it is the combination of the thrill of gambling and the gambling culture in CS:GO. Which implies that both the internal and external factors matter in various degrees.

The other group, which includes participants (1, 2, 5 & 9), buy loot boxes for internal reasonings and are not doing it for attention, but solely for themselves.

“I would say that [I do it] primarily for myself, because I think they’re cool, then it’s a bonus that others might think so too, in which case I’m fully aware of. And I think some people do it more or less for others as well. That some might do it more for others than what I do.” (9)

“A little part of it was to show off to others that you have this skin, but mostly in my case... I do not know if you have experienced it but to be able to play with a different skin makes the gameplay better. The feeling that the gameplay is better when you look cooler and I feel like you get a different experience when you have another skin.” (2)

4.2.2 Amusement

Amusement is reported as a major factor influencing both directly and indirectly loot boxing behavior. Participants reported that loot boxing enhanced the fun factor of gameplay in three ways: (i) it is fun to achieve something [loot boxes] for the money, (ii) opening loot boxes is fun and (iii) the items from loot boxes make the gameplay more fun. Participants 1, 2, 4, 5 and 7-10 claimed fun to be their main motivation to purchase loot boxes.

4.2.3 Avoidance

When it comes to avoidance, most of the participants did not have this kind of motivation when purchasing loot boxes. Participant 7 had the motivation of avoidance in the form of boredom.
Since moving to the countryside, there was no opportunity to hang out with his social communion, since they graduated and either moved back to their respective cities or other cities for work. As a result, there was nothing else to do for him and with purchasing loot boxes through his game would act as a system to pass time. Since he did not have anyone around him that is into his particular game, it was his way of spending his time when he did not have anything to do. Participant 9 shared that loot boxing was occasionally an escape from daily stress.

4.2.4 Excitement

When it comes to the motivation of excitement, most of the participants had similar types of explanations, supports, and sentiments to their purchase of loot boxes, but only six participants (3, 6 & 9-12) mentioned excitement as the reason for their loot boxing. In regard to the process of opening loot boxes, most of the interviewees reported excitement before opening loot boxes (2, 4-6, 8, 9, 11 & 12), which most often led to disappointment (1, 3, 4 & 6-10). This was never the case for participant 5 that chooses to buy 50 boxes at a discount, and always gets the item he wants eventually. While participant 2 never got disappointed because he expected not to receive anything of value. On the other hand, if the player was lucky and got a good item, in relative terms, that could also make the player excited to use it in gameplay (2, 4, 6, 7 & 10).

For some, excitement played a big part in purchasing loot boxes as it gave them a similar reaction to gambling (3, 6, 8, 11 & 12). It creates a form of anticipation when the person hopes to get a specific, rare or high-valued item. Participant 4 and 6 both explain becoming excited from viewing the animation when opening a loot box in CS:GO, as potential items that can be won flashes by on the screen. This consistent with how participant 5 describes his experience in opening loot boxes in Overwatch.

“When you press, it’s like it’s exploding, then it goes up like four different coins or what to call it. You can already see in the colors, the light after, how rare the thing is. So, for example, something yellow, which is the legendary, the highest. Already, you get up from the chair before it even landed to show what you received. If you get one like that you might think, maybe it’s one the next one too.” (5)

In games such as Hearthstone and Overwatch where there is no trading, considering the relativity of an item can be very important since the player can receive duplicates. Meaning that the internal value of the item is relative to what the player already has. As explained by participant 10: “When it's cards you don’t have: very exciting [...] while now [when I have most of the cards] it’s more like "oh well, another Legendary, I already have it’.” (10)
Moreover, participant 9 had occasionally the motivation of avoidance, in terms of stress. He elaborated while his motivation for purchasing loot boxes where for excitement, there were some occasions where stress came in action where it gradually appeared when he was trying and hoping to obtain the in-game items he was hoping for. Even though the stress was minimal and not very often, it had the tendency to arrive in a short period.

4.2.5 Value-based motives
Monetary motives are not found prevalently amongst the participants. CS:GO players (1, 3, 4, 6, 9 & 11) reported having sold items for real world currency.

“I sold skins that I did not want, at Steam’s Market Place.” (1)

However, only participants 3, 9 and 11 reported having considered making money from loot boxes while others (2) expressed that they did not view the process worth the time.

“I received a very valuable knife after five boxes, which was worth SEK 1000, from spending SEK 100 in boxes. So, the idea of making money came to me.” (3)

Only two of the participants have tried earning money from buying loot boxes (3 & 9), while some of the others have tried doing it from betting (1, 6 & 11). Participant 11 reported that although his main motivation has never been monetary, since it is technically impossible, he earned money from trading and selling skins.

“I’ve done that. Traded to get a small profit eventually. Trade-up. It was fun, but then they made a seven-day lock on items. When you get an item traded to you, it’s locked for seven days. Then you can’t trade it. It basically killed the entire trading scene in CS:GO, which was huge.” (11)

While money seems to be a weak motive for loot box purchasing, there is a clear concept of value-based motivations perceived by all of the participants. The value-based concept is about players loot boxing to receive game-specific items. These items are either cosmetically (1-4, 6, 9, 11) or functionally (5, 7, 8, 10, 12) and are deemed to positively contribute to the gameplay.

“It was partly to show off to others that you have this skin, but mostly in my case... to be able to play with a different skin makes the gameplay better. The feeling that the gameplay is better
when you look cooler and I feel like you get a different experience when you have another skin.” (2)

“By far, the biggest reason [loot boxing] is to obtain better players to build better teams. Unlike FIFA where pure skills can take you a long way, in Hearthstone it doesn’t matter how good you are, if you don’t have good cards, you will lose.” (12)

4.3 Impulse

In excess of the loot boxing motivations previously mentioned, impulse appeared to play a significant role in some participants’ purchasing behavior. Out of the twelve participants, four (2, 4, 5, & 11) reported not having been affected by impulse while purchasing loot boxes while the remaining 8 reported a range of different levels of impulse-intensity.

Participant 6 reported an occasional loot boxing behavior to pass time:

“Sometimes I just happen to have keys and boxes laying around, so I just open them. Other times while in chat-rooms waiting for a game to begin and since everybody else in the same room can see what you get, opening loot boxes works like an ice-breaker or conversation topic, especially if you get good items” (6)

In contrast, some participants impulsively purchase loot boxes much more frequent. Participant 3 explained that almost all his purchasing was based on impulse but mostly it was just for fun. While participant 1 and 12 said that in their cases, they have difficulty controlling the impulses:

“I’m a quite impulsive person, so I rarely plan my purchases.” (1)

“I can’t handle my impulses for shit. I have no self-discipline.” (12)

Impulsive loot boxing affected by different social influences also appeared to be one factor (1, 6 & 7). As previously mentioned, participant 6 occasionally opened loot boxes while waiting for matches to begin, however he only did this because of the presence of the other players. Participant 1 explained the connection between impulse purchasing and being urged by friends:

“When I was at LAN parties, we were many who gathered around because someone had purchased 100 packs, but we managed to encourage him to buy even more.” (1)
Participant 7 gave insight on how online influences affected his purchasing behavior:

“When you are really into this gaming, you start following people on social media. I had a lot of people on YouTube and they made these long-elaborated videos where they are just opening these random packages. Then you see and think since they get so many of these good players, maybe I will also get them, and you try your luck like a dumbass but do not get anything. That kind of affected me personally and did that a few times.” (7)

Another external source that influenced some participants’ impulses is the game publisher itself. By promoting deals and seasonal events, players struck by the offers gain an urge to purchase. Example of these are Luna New Year, Black Friday and Christmas Specials.

“They promote it very well and I think when you see those flashing all the time, you think that you should try your luck on it and I think that is very impulsive.” (7)

“If 10 coins cost SEK 50 and 100 coins cost SEK 500, first you just think that you go with the lower sum, but then in the heat of the moment you might suddenly switch to the other one.” (9)

Finally, impulsive loot boxing from frustration have applied to three of the participants. Participant 12 explained that being frustrated from losing [FIFA] games, he felt the urge to buy packs for SEK 500 in hope to start winning. Participants 10 and 8, who play Hearthstone, shared that they use to loot box out of frustration for not receiving the items they wished for.

“When you are on a loose streak (that you get bad cards in a row), then you get the impulse of just buying more deck of cards and I do not think about it a lot….it can also happen that I have bad cards and want to buy more and hope to the good ones.” (8)

4.4 Collecting purpose

In games with pay-to-win-loot boxes, collecting is essential if the person wants to become better at the game, this is consistent with the accounts from 7, 8, 10 and 12. This gives the player an opportunity to build a team (FIFA) or a deck of cards (Hearthstone), to better suit each player’s strategic gameplay. For participant 10, the primary objective of buying card packs is to become better and win, while the second objective is to collect golden cards that are animated, which enhance gameplay. He explains “In the beginning, I wanted the new cards to build a deck. Now it’s that I have 24 out of 30 golden (cards), and it would be good to have [the collection] complete.”.
Buying loot boxes for collecting purposes was also an important factor in cosmetic-loot box games, and although the intention is not always about selling the items, the value still mattered in the collecting aspect. Several of the participants bought loot boxes simply because they wanted a specific skin. Not necessarily for differentiating themselves from others, but because the skins look cool (1, 2, 4, 6 & 9). Participant 5 also bought skins because of the cool factor but collects skins specifically for his favorite characters.

It is not about the motivation of receiving a wide selection of different skins, but rather getting cool items and wanting more. In CS:GO, the players could buy the skins directly from the marketplace for varying prices, but opening boxes instead had an added value in forms of excitement and amusement, as mentioned previously. The price of each item is relative to the probability of receiving it. The most common items are worth less than the price of opening a loot box. This means that most often the person buying loot boxes will spend more on opening boxes than the actual value of its items.

“In later years, I started to buy skins directly instead. I want this, and I’m not going to spend SEK 250 to open something that is worth SEK 100.” (11).

4.5 Gambling mentality

The gambling mentality is particularly prevalent in a game like CS:GO, and just like in gambling, the odds are against you. It is practically impossible to earn money from loot boxing since the player-priced economy is based on probabilities, and the likelihood of getting something of value that covers the cost of boxes purchased is quite unlikely. Nonetheless, players continue purchasing loot boxes despite not gaining anything of value and can most often spend less money if they were to buy skins directly from other players. However, the skins are not the primary motivation for players buying loot boxes, since it is more about the experience rather than the gains.

“I think it's just this, the thrill of gambling. You have a small chance of being the one percent as well. Or they released the odds recently, so it's 0.001% to get a knife or so. If you're lucky, you get a good knife, if you're unlucky, maybe you get a knife worth SEK 400 anyway. So maybe you get one worth SEK 30 000. It's odds, on odds, on odds. I think it's the thrill of gambling, that's what draws people to it.” (11)

A common belief is that the more boxes are opened, the more likely a legendary or rare item is to be received, since the probability of getting a good item is increased. This is a form of gambler’s
fallacy since it assumes that the person will eventually win something big, but since the odds are against the person playing, this mentality will never pay-off. Only participant 2, 3 and 7 admits to having tried to, in a sense, compensate for the things that were lost, or never received. This indicates that despite always receiving something, the value of these common items are deemed to be so low that the €2 spent on the box is wasted on something worth only a few cents in Steam’s Marketplace, which in these three cases are specific to CS:GO. However, other players have admitted buying more than anticipated to try to counteract a loss-streak or having the belief that their chances of getting something valuable increase for every loss (6, 8 & 9). In participant 6’s mind it plays out as “The next one, if I only open a few more, now it’s close.”.

Also, there is this perception of “micro-spending” that was found to be prevalent among the participants. Because the cost per key or loot box is so small, ranging $1-3, the participants explained that it was easier to continuously make purchases.

“If you open a chest and don’t get anything, you can just buy a couple more since they only cost 2 euros. It means you could do some more before you are ruined” (3)
5. Analysis

This section will analyze the motivations for individuals purchasing loot boxes with the motivations for participating in gambling activities, which is related to RQ2. Furthermore, the section will also dive into other findings which was discovered from the interviews.

Interpreting key elements of the interviews serve the biggest role in the analysis. It will be used as a foundation of information upon which the discussion of a correlation between gambling and loot boxes will take place. However, it is the pattern among the participants that can bring conclusive answers to whether it conforms to the framework of gambling, as well as presenting alternative answers that can be the basis of a secondary framework.

5.1 Motivations to loot boxes purchasing

The interviews were based around the motivations from the five factors model, but not all answers regarding the motivations were compelling enough to be analyzed, such as avoidance. As can be seen in the empirical findings, this aspect only exists for two (7 & 9) of the participants. Even though it was considered minimal and occurred rarely for participant 9, there was an avoidance of stress when purchasing loot boxes. Hence, the findings are not conclusive enough to base an entire section of the analysis. The factor only points out in broad terms that loot boxing can be an escape point when feeling bored or stressed. According to Stewart & Zack (2008), avoidance is more commonly found in pathological gamblers, in other words rarely, which could explain that so few of the participants aligned themselves with this behavior. However, it can also be due to the participants living a stable life with good family conditions and no financial problems. Conclusively, there exists no significant evidence that can confirm loot boxing to be used as a form of escapism and therefore it is deemed inconclusive.

5.1.1 Socialization

According to Lee et al. (2007), socialization plays a big role in many gamblers’ motivation to gambling, and based on the findings, the analysis can be divided into the three aspects of socialization. The first one is communion which is about gambling in the presence of other people. As mentioned in the findings, loot boxing with other people is very popular among the participants and their peers, as this enhances the loot boxing experience. There are two ways to collectively open loot boxes. The first one is online, through talking to others via text or voice chat, opening together in a game room or through streaming platforms such as Twitch and YouTube. The second
scenario is loot boxing offline with physical presence among other people, similar to going to a casino or a bar to gamble. Examples of locations used by our participants are at LAN parties, at friends’ houses or in school. This could be a social activity used to entertain gatherings, however there was no detailed indication of this particular activity among the participants (Lee et al., 2007). According to the findings, one’s loot boxing behavior can be hugely influenced in the presence of other people who share the same interest in loot boxing (Lee et al., 2007).

The second aspect of socialization is competition, which is not as distinct in the findings. Becoming competitive is one of the main reasons for loot boxing in pay-to-win games as the players want better cards to be able to win. However, loot boxing in pay-to-win games functions as the medium to getting competitive items, rather than winning a prize or winning against the dealer. Since the player always gets an item while loot boxing, the prize incentive is about winning something of good value or having an item that is better than what a friend might have. In a similar point, ostentation, was one of the more prominent aspects. It is about attention and bragging, where the player can show off their items to others (Binde, 2013). Among the cosmetic games, this was one of the more influential factors, which on some levels are similar to the competition aspect.

5.1.2 Amusement

According to Lee et al. (2007), Mulkeen et al. (2017), Stewart & Zack (2008), amusement is an elevated positive mood by feeling entertained and joyful. Players loot box in order to obtain unique items that enhances gameplay. Both the items and the process of opening a loot box gives amusement to the player. The items give enjoyment either in form of internal joy from usage, or from showcasing it to others. Using the items could be amusing in various ways, such as players differentiating themselves from others or from having something new to look at on screen. The second part of amusement in having items derives from the ability to show off what one has obtained through loot boxes to other players online, for example clothing or weapon skins. Worth noticing is that this seems to only apply to online games where other players can see one’s items during gameplay because lacking the possibility to show off was deemed not worthy of loot boxing.

In the process of opening loot boxes, the anticipation of getting a good item can make the player experience positive emotions as well as when receiving the item. This is also linked to excitement, which is part of the fun.
5.1.3 Excitement

As earlier mentioned in the findings, excitement and thrill are two of the prominent influencing factors for individuals to gamble. By examining the similarity of excitement for gamblers and gamers, there exist some notable commonalities. After the acquisition of loot boxes, there occurs a sort of excitement which were felt by every interviewee before opening the loot boxes. That is where the excitement of experiencing risk-taking and uncertainty arise. Like slot machines or wheel of fortunes, it starts with in-game items flashing by that catches the attention and interest of the individual. This attraction is intensified by the uncertainty of the outcome and the chance of winning something out of randomness. Throughout this uncertainty, gamers feel excited and thrilled. These feelings are very similar to that experienced by gamblers (Lee et al., 2007).

Finally, there is an excitement after opening the loot boxes and receiving a valuable item. This aspect of excitement refers to the possibility to now utilize the in-game item in the gameplay. Similarly, monetary rewards from gambling can be used in real life transactions and is deemed exciting for gamblers. However, only six participants reported to loot box out of pure excitement. The majority only viewed excitement as a bonus to the value-based motives. Finally, there is an excitement after opening the loot boxes and receiving a valuable item. This aspect of excitement refers to the possibility to now utilize the in-game item in the gameplay. Similarly, monetary rewards from gambling can be used in real life transactions and is deemed exciting for gamblers (Lee et al., 2007). Although not an ultimate decisive factor, this bonus is unanimously considered positive to the loot boxing experience, hence contributing to more loot box purchases. In conclusion, excitement and thrill are very similar in loot boxing compared to gambling.

5.1.4 Money & value

“Money is the fuel of gambling; it drives it, as petrol powers a car, but the pleasure of driving a car is not about petroleum. It’s about speed, style, movement. Fuel is merely what makes the car run. In that sense, the real motives behind gambling are to be sought elsewhere.” – David Spanier (Binde, 2013).

Monetary motives are rather abnormal among individuals who purchase loot boxes due to the lack of technical opportunities. The two participants from the research who cashed out in real world currency were involved only under a limited time because it was not deemed lucrative or worthwhile. Based on the mechanics of video game systems, account holders are not provided any intentional opportunity to withdraw, trade or sell in-game items for real world currencies. Despite the existence of third-party platforms through which players can do this, game developers
do not condone or encourage these types of activities (Gibbs, 2018; Livingston, 2018). Consequently, this is the motivation that most significantly differs loot boxers to gamblers. Based on this reasoning, a value-based concept was developed by the authors that more suitably explain loot boxing motivations. This concept is considered video-game-specific and replaces the monetary rewards from traditional gambling with in-game items. These items have an inherent value that are appreciated, desired by the gamers and considered money’s worth, rendering them the core incentive to loot boxing.

“Yes, I believe that the items have their own value. First of all, you do pay with real money and receive something out of it, even though they might not be what you expected in terms of value. I mean, everything has a virtual value that is constructed by us [human]. Look at bitcoin, it’s not even real, just a fragment of a hard drive. So, what is money and what is value?” (1)

When comparing the value-based concept to the monetary motives from the framework, one significant difference is worth considering. In gambling, there is no explicit limit to how much money one can win. In gaming it is different. Despite the fact that gamers loot box for items, when they have obtained all possible items, the value-based incentive should, by rationality, decrease significantly. However, this should not be confused with a limit of how many items that can be obtained through loot boxes, because there is none. For example, this reasoning had affected the loot boxing behavior of participant 7:

“Since there are new FIFA games every year around September and I got [Cristiano Ronaldo] around the end of October, I was really happy because I used the same player throughout the year. It also helped me to not overspend so much money on purchasing packages, I must add.” (7)

The same can be applied to Hearthstone, where only a limited number of unique cards can be obtained.

5.2 Loot boxing and gambling

Comparing motivations for loot boxing to gambling resulted in many similarities. Apart from studying loot boxing motivations, we need to observe the similarities in other areas in order to evaluate the extent of gambling in loot boxing. The first part is about the similarities in mechanics,

Firstly, there is the technical perspective. Loot boxing uses similar mechanism as some forms of gambling such as slot machines and wheel of fortunes, and even though the rewards are not
explicitly of monetary value, the premise is uncanny. In gambling activities such as slot machines, users wager money in forms of either physical or digital coins/chips, activates the machines which then use computerized technology to generate a complete random result that is independent on previous outcomes (Cruise, n.d.; Slots, n.d.). The reels, normally three to five, start spinning in front of the user and when stopped at certain combinations, the user will either receive a monetary reward or nothing. In physical casinos, rewards normally come in form of chips, which are later exchanged for real world currency. Loot boxes function very similarly. Players first acquire loot boxes either by purchasing in-game currency or directly through online payment methods. After opening the boxes, animations simulating slot machine behavior appear (1) and ultimate stops. The biggest difference here is that users always receive an item and while the majority of the items seem worthless, rare items can have a value of several thousand euros (Knoop, 2017). Furthermore, reward systems work differently depending on games. For example, in Hearthstone, players are guaranteed rare items after a predetermined losing strikes (Wiki, 2018). These in-game items are valuable to the gameplay experience and are not encouraged to be exchanged for real world currency, despite several online platforms such as Steam’s marketplace allowing this possibility.

Based on the view on the mechanism, it seems reasonable that all participants except for participant 2, who was unsure, consider loot boxing to be a form of gambling. However, many still have doubts and considers it to only apply to certain games. This uncertainty is based on how each game functions, and if it allows trading or selling with other players. This means that games with a player-priced market can in one form or another exchange in-game items for real life money, such as CS:GO where items can be sold at Steam’s marketplace or FIFA where players can trade cards with each other, and therefore also exchange it with real money, although a practice which is not encouraged by EA games.

“It depends, in a game like CS:GO I think it is more gambling than Hearthstone because you can get the cards in some way or another. Looking at CS:GO then it is pure cosmetics, gambling and bragging points. But you can also buy individual items, which you cannot in Hearthstone.” (8)

Parallelly, some participants think that the loot boxing process share many similarities with certain traditional gambling activities, especially fortune wheels, lotteries and slot machines. Participant 1 explains that for him, it is the very much alike slot machines, some loot boxing processes even spin around with items flashing by, showing what one could have received.
Participants 7, 9, and 12 thinks that the unknown and randomness of the outcomes matter the most in terms of comparison.

“Oh yes, it is definitely gambling because you do not control any outcome” (7)

“Yes, in the sense that you spend money on one end and don’t know what comes out on the other” (9)

Apart from the mechanism, the participants resonated around their experiencing of emotions and behaviors which they deem gambling-like. Depending on the outcomes, the reactions and emotions vary however still with consensus. The majority of the participants experience a sense of excitement and thrill during the process, as mentioned in findings. According to Lee et al. (2007) this finding coordinates with the theoretical framework of excitement in gambling, stating that intense feelings, the thrilling experience in risk-taking and uncertainty are very common among gamblers. Participant 6 elaborates how he used to scream out loud when seeing valuable items flashing by. Participant 11 shares that at the beginning, he used to be very optimistic during the spinning phase of loot boxing, but that gradually changed to a more neutral state with less expectations.

“I don’t know if you have played poker, but you get the same feeling of excitement that you can win something (even though you do not win anything). I have played poker before and you can win real money, but I would say that the feeling is the same, that you can win something. Even though you do not win anything in terms of monetary value.” (2)

In contrast, some game developers such as EA insist that loot boxing are not to be classified as an gambling activity due to two reasons, the first one as previously mentioned, being in-game items not designed to be sold in markets for real money. According to the EA’s CEO, Andrew Wilson, the company even forbid and are actively cracking down on the activity (Gibbs, 2018). Based on the same reasoning, the UK Gambling Act also rejected the idea of loot boxes being classified as gambling (McBride & Derevensky, 2016). What the study found out however, is that the majority of the participants view the in-game items as such valuable that they are worth money. For that reason, this argument does not seem to hold for gamers. As participant 8 explained:

“I see the value in terms of entertainment and I do not see it as just as winning money, but because it is fun and see what I can do with the money. It’s the same mechanism, you purchase
with real money and you receive something that you value highly (because you paid real money for it), even though it’s not convertible to real money.”

The second part of the argument is regarding players never finishing a loot boxing session empty handed. EA and the Electronic Software Rating Board (ESRB) which is responsible for rating age restrictions for video games compare the element to classic collectible baseball cards where one always receive a card no matter what (Watts, 2017). When asked the participants for their views on this reasoning, there was a mixed response of 20% agreeing, 30% not sure and 50% disagreeing. With those who disagreed, the argument was the same, that the value of the items that players always receive is deemed worthless.

“I don’t buy that argument when 95% of the times you get something that is worth $0.01 with a wager of $2” (3)

“That is the worst argument. Yes, you always receive something but with no value. That is just their excuse to use it as gambling” (12)

After rejecting the argument, participant 8 even compared this element with gambling with a rhetorical question: “Well, don’t you always receive entertainment out of gambling [when losing]? In that aspect it’s the same”

In summary, the majority of the participants view loot boxing as a form of gambling, in one way or another. Mostly it is because of the many similarities in the mechanism of both systems but they also considered the psychological aspect of the comparison.

5.3 Addiction and severity

Interestingly, despite having a large majority of people considering loot boxing to be gambling, not everyone wants the feature to be regulated (1 & 3-12). For the most part this only means having an age restriction or introducing a form of verification system to prevent children from accessing the service (1, 6, 9, 10 & 11). None of the participants suggested or even considered having the feature banned and removed entirely, since it is a fun and exciting addition to the game.

“I don’t know. I don’t think it should be banned but maybe regulated to some extent. Especially when it comes to pay-to-win loot boxes that ruins the gaming experience. It might not be the same with cosmetic loot boxes but in Hearthstone, even if you suck, you can still win if you have good cards” (12)
5.3.1 Concern among youths

Participant 3 expressed his perspective on the growing issue around loot boxes. He mentioned that his own experience 5 years ago is very similar to that of his younger cousins today. It is very common that Swedish youths of 10-12 years spend their allowance money on loot boxes. While at gaming fairs such as DreamHack, they are participating in daily betting activities with items worth SEK 3,000. He then explained that even though these youths lack access to credit cards which are normally used in loot boxes transactions, they can easily use their physical allowance money to purchase prepaid cards to top up their online accounts.

Since loot boxing is a relatively new phenomenon with no academic and comprehensive research been conducted, there is little empirical evidence to constitute the severity of it. However, the concern can still be valid. There have been reported a number of cases where gamers have spent extreme amounts of money on microtransactions, including loot boxes. One of these cases was a 19-year-old who wrote in an open letter to video game developers revealing, with evidence that he has spent $13,000 on in-game items (Gach, 2017). One of the games mentioned was CS:GO. He claimed having gambling addiction but referred to loot boxing instead of traditional gambling practices. Worth notably, he mentioned that his first spending on virtual items was back when he was 13 years old, on a mobile game named Clash of Titans. This seems to accurately reflect a recent study by the United Kingdom’s Gambling Commission (2018) that found 54% of children 11-16 years old were aware of the possibility to pay money or use in-game currency to open loot boxes, out of which 31% reported to have had opened loot boxes (Gambling Commission, 2018). Finally, the study reported 39% of these children have spent their own money on gambling and while there is no explicit correlation confirmed in the report, there is a high chance that loot boxing experience might unlock potential for gambling among youths. To further support this hypothesis, a recent Australian study conducted in loot boxing has discovered a positive correlation between loot boxing and problem gambling (Zendleid & Cairns, 2018). The authors elaborated that the link between these two are as strong as the link between problem gambling and drug abuse, alcohol abuse or depression. The finding from the interviews indicates that the majority of gamers view loot boxing as a form of gambling. While not all entities share their view of reasoning, especially game developers and certain regulators, it is still the gamers that will be affected. A research by the Australian Institute of Family Studies (2016) expressed a concern for the easy access to free gambling simulated games on electronic devices such as smartphones and tablets. The research claimed that the exposure of simulated gambling content at early age might lead to commercial behavior for some (Dickins & Thomas, 2016).
5.3.2 Continuous spending

Another factor that can contribute to the level of severity of loot boxing is the way game developers incorporate loot boxes to support games’ lifetime value. The range of new in-game items in modern popular games continue to grow on a regular basis. As found from the interviews with our participants, some state that the system is designed to make one want to purchase more, which in a sense is addictive (2-4, 6 & 7). Participant 10 explained that the developers of Hearthstone release in a regular basis card packs that are either seasonal (e.g. summer or winter season) or linked to special occasions such as Christmas or Black Friday. This trend might give gamers the incentive to keep spending, such as the case of collecting by participant 10.

*Every year you have to buy a new FIFA, which means that you have to start from the beginning [obtain new players]. That is actually one of the reasons why I did not buy the latest FIFA, because I did not want to deal with that process anymore. That was too much.” (7)*

The value-based concept which was developed from the findings should, by rationality act as a sign to stop gamers from keeping spending money on loot boxes once they have achieved the items that they wish for. However, because the odds to achieve the best items are so small, gamers might need to spend an undetermined sum in order to receive them. A perfect example is the odds to receive Cristiano Ronaldo, who is one of the best players in FIFA 19, is less than 1% (Murphy, 2018; Yin-Poole, 2018). This practice of the game developers may result in a form of entrapment, where continuous spending on loot boxes are justified by the guilt from the money already spent. According to Brockner et al. (1982) the concept of entrapment refers to the reasoning that one has invested too much to quit. In other words, the money spent on loot boxes without resulting in any valuable items may be considered a non-retrievable sunk cost, which might help gamers to move on (King & Delfabbro, 2018a). This phenomenon is also confirmed by some participants. Participant 8 explained that it is more fun to continue build up a game that you have invested time and money in, instead of beginning a new one. Participant 10 conquered:

“You feel like you have already spent so much money without being satisfied, so you might as well continue in order to finally get something from it” (10)

5.3.3. Distorted beliefs

Lastly, the distorted beliefs found among our participants while loot boxing can also be a factor towards the severity. According to Yakovenko et al. (2016), distorted beliefs among gamblers contribute to gambling severity overtime.
One interesting finding was about players having a distorted perception of the monetary value of in-game currency. Distorted in the sense that they value in-game currency as less valuable compared to real-world money, despite the fact that they were bought using real-world money.

There seems to be different reasons to this perception. The first one is connected to the in-game currency system. In-game currencies come in different shapes (coins, RP, FIFA points etc.) and exchange rates. For example, $10 can generate 1 050 FIFA points (Lopes, 2018) or 1 580 Riot Points (Riot, n.d.). This confusion results in players losing the grip on the monetary value of their purchases (King & Delfabbro, 2018b).

“The conversion rate is so sick [confusing]. They purposefully make it not easy for you to convert. It makes you lose the connection with money.” (8)

Another reason to this distorted view is because the in-game currency is permanently locked in the game once purchased. This prevents the players to legally, and most of the times technically to withdraw them as real-world money. Consequently, the participants no longer care about the monetary value of the in-game currencies (4, 6-12).

“As soon as they [currency] are in the game, they are rendered worthless in my head. I don’t even consider them money anymore.” (12)

“We all know how that SEK 500 is worth SEK 500, but when converted into virtual currency, you no longer know. Maybe it’s worth 10 gold coins, but what does that even mean?” (9)

Depending on the games and their corresponding in-game currency, not all games have fictitious currencies. CS:GO players do not make transactions with fictitious virtual currency. The keys to open loot boxes in CS:GO are priced in terms of real-world currency. Therefore, some participants have a more rational view as the others (1 & 2). “The value is the same, they are just not as liquid. You just can’t spend the money however you like or withdraw them.” (1)

As a consequence, there is a consensus among the participants that in-game currency, particularly when converted to a fictitious one, makes them easier to be spent (1, 4-12).

“If you cannot withdraw or save them, then you might as well spend them” (6)

“Once they have been converted into coins, I stop viewing them as money because now they are only there to be spent”. (10)
6. Discussion

This section will be used to discuss the contributions and implications of this research study, in terms of practical, academic, and managerial perspectives. Additionally, limitations and possible future studies will be presented.

6.1 Contributions

By answering the research questions, this thesis’ observations have contributed knowledge to the topic of loot boxing and in what ways it resembles certain gambling activities. Loot boxing is a relatively new feature but have quickly become a well-discussed topic with potential impactful consequences to individuals and society because of its relatedness to traditional gambling (King & Delfabbro, 2018a; Macey & Hamari, 2018a). For that reason, it was deemed important to be explored. By the time of conducting this research, existing academic articles only addressed loot boxes as a topic worth future research and online articles only compared the technical element of loot boxing and gambling. While the technical element can indeed be a major component in analyzing loot boxes, there are other underlying aspects which could be equally important, one of which is motivations for purchasing loot boxes.

The questionnaire regarding loot boxing motivations was based on the five-factor model of gambling motivations by Lee et al. (2007) with one additional motivation from Clarke (2008). The findings showed that out of six, two motivational factors strongly resemble that from gambling, with one factor inconclusive. The interviews also showed that almost all gamers view loot boxes as a form of gambling, but do not want the feature to be removed.

6.2 Discussion of findings

The three remaining factors that were not found in loot boxing behavior are monetary motive, avoidance and amotivation. Based on the point of views of the participants, the monetary motive can be replaced by the value-based motive, which is considered video-game specific. In that case they can be comparable, however this statement might require more support from future studies. The absence of avoidance and amotivation can be explained by the lack of more severe loot boxing behavior (Clarke, 2008; Lee et al., 2007). In other words, the new motivations can draw
further similarities to gambling. Making the motivations for loot boxing similar to that of gambling.

Current opinions on the subject choose to mainly focus on the technical comparison between loot boxes and gambling (Alaeddini, 2013; Hoggins, 2018; McBride & Derevensky, 2016). Those who favor loot boxes claim that since gamers always receive something out of loot boxes, it should not be seen as gambling. While there are mixed opinions in the matter, the opinions from the participants clearly show that regular gamers view loot boxing as a form of gambling. Furthermore, they do not accept the argument mentioned. This finding should be serving as a strong consideration in justifying loot boxing, since being the end users to loot boxes, gamers are the ones who are mostly affected by them.

6.3 Practical implications

Reports show that the number of children involving in gambling activity has quadrupled in 2018 parallel with a high percentage of loot boxing (Gambling Commission, 2018). Others report of adults with severe purchasing behavior (Gach, 2017). Regulators around the world are facing a phenomenon they do not fully understand in order to regulate. Understanding why gamers purchase loot boxes can be used as a foundation for regulators to achieve that goal. Furthermore, it can benefit regulators to consider the opinions and point of views of loot boxes users when they seem to be a unanimous.

Furthermore, video game developers can benefit from learning about what gamers think of their content and hopefully make positive changes to their business strategies. It is clear from the findings that gamers have a love-hate relationship towards loot boxes: they think negatively of the feature but still want it to remain. This indicates that loot boxing is accepted among gamers, hence game developers cannot be held accountable for providing a feature that enhances the gaming experience. What they can do however, is to restrict the possible purchase of loot boxes to prevent excessive purchasing behavior and future consequences. Another thing is to make loot boxes more difficult to access for children. This can be done in several ways, including implementing layers of security checks that would require parental controls.

6.4 Limitations

Since loot boxes are a relatively new phenomenon to academic researchers, the main limitation of this study has been the limited number of academic literatures in loot boxes. Hence this study
has also collected data from other sources such as articles published in gaming websites. This has added an additional process of validating the information through multiple sources.

Secondly was the time limitation of around four months, which serves as a constraint to this research. The time constraint generated an issue to attain interview participants in time in order to have enough time to analyze the findings. Also, time determined the size of the sample. Having more time would generate a larger sample of participants, which would result in a more accurate representation of the population. Another limitation regarding the sample was the deficient diversity of the participants. Out of twelve participants, only one was female. Although the principal consideration was to hold more of an equal quantity of both genders, there was more difficulty in finding more female participants who have spent more than SEK 1 000 on loot boxes.

Further limitations were that certain participants forgot or had to remember their prior acquisitions among loot boxes as they were either not so active or no longer engage in those activities anymore. On account of such, that generated some restrained responses that produced less content on certain motivational factors.

6.5 Future research

Based on the findings of this study, several future research approaches can be made to enrich the body of knowledge, providing more data for regulators and other institutions to use in discussing loot boxes. As previously mentioned in discussion, avoidance and amotivation which are linked to gambling addictions, were not representative in this study. This can be explained by the fact that our participants were not addicted to loot boxing, considering these two motivations are similar to gambling. Based on this assumption, one future research can focus on the extreme cases of loot boxing to see if there exists an equivalent version of pathological gambling in loot boxing in terms of motivations. This comparison or possible correlation would be undeniably interesting to consider in decision making process.

Another possible future research can be with a positivist perspective. In this case, a quantitative study of a much bigger sample can be conducted in order to validate the findings from this study. This would solve the sample size and demographic limitations faced by this thesis.
7. Conclusion

The aim with this thesis was to increase knowledge in the topic of loot boxes and its similarities with traditional gambling activities. The introduction explained what loot boxes are as well as introduced the current legislative and business state of the phenomenon in the gaming industry. After confirming the gap in existing literature, two research questions were established to guide the direction of the study.

RQ 1: *What are the driving factors and motivations for purchasing loot boxes?*
RQ 2: *To what extent is purchasing loot boxes a form of gambling?*

The research method used to answer these research questions is of qualitative nature since it was deemed most effective for this type of study. Through conducting semi-structured interviews with twelve individuals with experience in purchasing loot boxes, in-depth motivations and gamers’ perspectives were discovered. This data was later compared with gambling motivations gathered from academic literature.

The empirical findings of this study show that motivations for loot boxing are socialization and amusement, as well as video-game-specific value-based motives and collecting purpose. Excitement also had a big influence among the players, although when only considering it as a motivation for loot boxing, the result was deemed inconclusive since half of the participants reported it as a motivation for loot boxing. Two additional factors contributing to loot boxing behavior are impulsivity and distorted beliefs.

When compared to gambling motives, it is evident that gamers share similarities in socialization and amusement. The video-game-specific motive based on value be a modified version of monetary motive from gambling. Additionally, impulsivity and distorted beliefs are also found in both domains. Lastly, this study shares gamer’s views on the current loot boxes phenomenon. All except one participant view loot boxing as a form of gambling, mostly because of the uncanny similarity of the mechanism and the emotional affect. Despite this negative view on loot boxes, no gamers want the feature to be removed.

In conclusion, this study shared light on why gamers purchase loot boxes and their opinions on featuring loot boxes in video- and computer games. This knowledge serves as a valuable foundation to future research as well as current decision making in regulating loot boxes.
References


Kräplin, A., Dshemuchadse, M., Behrendt, S., Scherbaum, S., Goschke, T., & Bühringer, G. (2014). Dysfunctional decision-making in pathological gambling: pattern specificity and the role of impulsivity. Psychiatry Res., 215(3), 675–682.


Zendleid, D., & Cairns, P. (2018). Video game loot boxes are linked to problem gambling: Results of a large-scale survey. https://doi.org/10.1371/journal.pone.0206767
Appendix 1: Interview questions

1. Background:
   Gender:
   Age:
   Occupation (Student, worker):
   Income (general or disposable):
      <15,000
      15,000-25,000
      25,000-40,000
      40,000+

2. What games do you play?
   Which of those games do you play that include loot boxes?
   How long have you played those type of games?

3. How did you first know about loot boxes in games?
   (e.g. External influences, self-exploratory)

4. What are the reasons for your purchasing loot boxes?
   (e.g. Personal reasons, peer-pressure, fun, stress)
   If impulse, do you experience an inability to control your impulse?

5. What are the reactions/emotions before and after doing your purchase?
   What happens if you don’t get what you had hoped for?

6. Has loot boxes caused you any health problems?
   (e.g. stress, anxiety, pressure?)

7. What kinds of loot boxes do you purchase?
   What is the reason you bought that type of loot box?

8. Do you share your wins/losses with others?
   (e.g. social media, friends)

9. How often do you purchase loot boxes?

10. How much money do you think you have spent on loot boxes?
    In what games?

11. Do you personally think you have invested too much money on loot boxes?

12. When do you think is the limit to excessiveness regarding loot boxes?
    (e.g. money related, issues to control the urge)

13. Has it caused any financial problems for you or your household?

14. Have you borrowed money (from friends, family, bank) or sold anything to get money for loot boxes?

15. Have you ever tried to "win back" what you’ve lost? (money or items)
16. Have you ever sold your in-game items for real money?

17. Do you see any difference in motivations between purchasing loot boxes in individual games as opposed to collaborative games?

18. Why do you think people purchase loot boxes?

19. Do you see loot boxes as a form of gambling? Should it be regulated?
Appendix 2: Interview questions revisited

1. Gender?
   Age?
   Occupation? (Student, worker)
   Higher education?

GAMING BEHAVIOR

2. What games do you play at the moment?
   Which of those games do you play that include loot boxes?
   How long have you played those type of games?
   Have you ever felt like you’ve been addicted to gaming?

LOOT BOXES

3. How did you first know about loot boxes in games?
   (e.g. External influences, self-exploratory)

4. What are the reasons for your purchasing loot boxes?
   (e.g. Personal reasons, peer-pressure, fun, stress)
   · Amusement
   · Excitement
   · Social
   · Money (both winning and guilt of losing?)
   - Value of the items
   Have you bought loot boxes by impulse?

5. When and how often do you purchase loot boxes?

6. Do you see any difference in motivations between purchasing loot boxes in online-single player games as opposed to online-collaborative games? Why?

7. Why do you think people continue purchasing loot boxes, given the mechanism of the odds and the unknown?

EMOTIONS, Health

8. What are the reactions/emotions before and after doing your purchase?
   What happens if you don’t get what you had hoped for?

9. Has loot boxes caused you any health problems?
   (e.g. stress, anxiety, pressure?)

10. Have you ever played as a reality escape?
    Does loot boxing make you feel better?

SOCIAL

11. Did you share your results with others?
    (e.g. social media, friends)

MONEY

12. How much money do you think you have spent on loot boxes?
    In what games?

13. Do you personally think you have invested too much money on loot boxes?
    Why?
14. When do you think is the limit to excessiveness regarding loot boxes?  
   (e.g. money related, issues to control the urge)

15. Has it caused any financial problems for you or your household?

16. Have you borrowed money (from friends, family, bank) or sold anything to get money for loot boxes?

**GAMBLING**

17. Have you ever tried to "win back" what you’ve lost? (money or items)

   Do you think that the more boxes you open, the bigger your chance is to get something good?  
   (Gambler’s fallacy)

   Do you see digital currency as less valuable than real money?  
   Has that made you spend more?

18. Have you ever sold your in-game items for real money? Why?  
   - Have you considered making money from loot boxing? Why?  
   - Have you loot boxed for value-collecting-purpose? Why?

   Has loot boxing influenced your gaming? Do you play less or more?

   Do you gamble outside of games?  
   - Har loot boxing fått dig att prova gambling/påverkat din gambling?

   Have you tried betting with skins?

19. Do you see loot boxes as a form of gambling?  
   Should it be regulated?