# Free-to-Play Games: Paying Players' Perspective

Kati Alha
Game Research Lab
University of Tampere
Tampere Finland
kati.alha@uta.fi

Jani Kinnunen
Game Research Lab
University of Tampere
Tampere Finland
jani.kinnunen@uta.fi

Elina Koskinen
Game Research Lab
University of Tampere
Tampere Finland
elina.koskinen@uta.fi

Janne Paavilainen
Game Research Lab
University of Tampere
Tampere Finland
janne.paavilainen@uta.fi

## ABSTRACT

This paper investigates the free-to-play revenue model from the perspective of paying players, focusing on high-spenders. As the free-to-play model has proven successful, game developers have increasingly adopted it as their revenue model. At the same time, worrying concerns over the revenue model have been voiced, calling it exploitative, unethical, or simply claiming it to offer poor gameplay experiences. We investigated these concerns by conducting an interview study with 11 players who have spent money on free-to-play games, on their perceptions about free-to-play games, experiences on playing them and paying in them, and opinions on ethical issues in the games. The results shed light on how players themselves experience these games.

## CCS CONCEPTS

• Software and its engineering → Interactive games • Applied computing → Computer games

## KEYWORDS

Free-to-play, attitudes, experience, ethics, paying, digital games

## 1  Introduction

The free-to-play (F2P) model has become one of the main revenue models in the video game industry. In mobile games, the model has become especially successful as the top-grossing games on both

iOS and Android platforms are almost exclusively based on F2P. Online multiplayer games are increasingly based on the F2P model and even retail games are featuring in-app purchases to gather extra revenue on top of the fixed price [4]. It can be argued that the emergence of F2P model is the biggest revolution in the game industry since the emergence of online play.

Despite the commercial success, F2P has been criticized by developers and gamers alike. This was apparent especially during the peak of Facebook games, when companies used aggressive marketing to push in-app purchases for a quick profit [27]. Later, one criticized feature has been pay-to-win, where paying players get a competitive advantage over non-paying players, causing frustration and feelings of unfairness. Meanwhile, the media has reported stories where children have accidentally spent large sums on in-app purchases [7, 23].

Depending on the game and the platform, as few as approximately 2% of players spend money on a F2P game. From the paying players, majority of the income comes from a small number of high spenders [10, 33]. The whole revenue model has been considered problematic and even unethical due to a small minority of high-spenders being responsible for making F2P games profitable.

Digital gaming, F2P games included, is evolving rapidly and competition between companies is fierce. As the problems of the model have been widely acknowledged, there has been an incentive for the industry to create better F2P games. There are several approaches to achieve this. As F2P games are played in online environments, players can be identified and all their actions in a game monitored, tracked, and recorded [19]. Game companies can use automatically gathered game analytics to further develop their games after the initial launch. Using metrics can be a valuable tool in making quick and comparably small changes in games during their life cycles. They help game companies react to players' behavior, but they do not tell why players act the way they do.

Instead of merely reacting to players' actions based on metrics, a deeper understanding of their behavior and attitudes can be achieved by more player-centric approaches. Qualitative approaches are suitable when we want to hear the players' own voices, interpretations, and experiences of F2P games. This paper presents an interview study with 11 F2P game players, focusing on player opinions and experiences regarding the model, and trying to identify and investigate both the problematic and positive aspects in F2P games. We have focused on paying players, especially high

spenders, as despite their crucial role in F2P monetization, they have not yet been widely studied.

## 2 Related Work

In an interview study by Paavilainen et al. [29], F2P games on social networks were not regarded as particularly social. While they provide a wide spectrum of experiences for different needs, they do suffer from their design characteristics. The interviewees had mainly negative attitudes towards in-game purchases, and none wanted to use real money on them. After the study, F2P games have decreased in popularity on social networks and gained popularity especially on mobile devices, while still having links to social media platforms [4]. The variety of F2P games is wider than ever and thus the experiences in different games can be expected to vary even more.

According to previous research on game development professionals' attitudes towards the F2P model [2], developers viewed the model favorably. They felt that public writing about F2P games could be negative or even hostile even though they are extremely popular at the same time. The professionals saw relatively few ethical problems about the model itself, while they admitted it had some typical problematic aspects.

Jordan et al. [16] investigated developer ethics in a F2P game through players' reactions to five changes in the game. These changes caused protesting and demands among players. In some cases, the developer reversed the changes after the uproar. Sometimes the problem was poor communication, sometimes going back on their initial stance, sometimes being perceived as greedy.

Hamari [13] found that enjoyment of the game reduces the willingness to buy in-game items and increases the willingness to

ontinue playing. Continued use, attitude toward virtual goods, and beliefs about peers' positive attitudes increase the willingness to purchase virtual goods. Hamari et al. [14] found six in-game purchase motivation categories through a survey study: 1) Unobstructed play, 2) Social interaction, 3) Competition, 4) Economical rationale, 5) Indulging the children, and 6) Unlocking content. From these, unobstructed play, social interaction, and economical rationale were positively associated with how much money players spend on in-game content.

## 3 Methods and Data

To get a wider perspective on player attitudes and opinions concerning F2P games, we conducted 11 in-depth player interviews. Interviewing as a method is an efficient tool to gain rich qualitative data about the target group's experiences and opinions [26]. The interviewees were screened from the respondents of a survey dataset collected earlier for quantitative studies on F2P games. The survey was circulated on Finnish gaming magazines' web pages and on their social media pages and had 1159 respondents. The background information of the interviewees is shown in Table 1. All the interviewees were Finnish.

The interviewees were handpicked, and the study was aimed to be explorative. The survey data was skewed towards male respondents, which influenced the gender distribution of the interviewees as well. High-spenders were emphasized in the selection, and eight of the interviewees had spent at least 500 euros on F2P games. There were no available female high-spenders for the interviews. Three interviewees were categorized as medium-spenders with 50–499 euros spent on F2P games.

**Table 1. Background information of the interviewees at the time of the survey.**

| ID | Gender | Age | Money on F2P games | Tried F2P games | Time/week on F2P games | Favorite F2P game | Attitude towards F2P games |
|----|--------|-------|--------|-------|--------|------------------------|----------|
| 1 | M | -24 | High | 11-15 | 15-20h | League of Legends | Neutral |
| 2 | M | -24 | High | >50 | 5-10h | War Thunder | Positive |
| 3 | F | 25-34 | Medium | 31-35 | 5-10h | Kim Kardashian: Hollywood | Positive |
| 4 | M | 35-44 | Medium | 11-15 | 35-40h | Hearthstone | Negative |
| 5 | M | 35-44 | High | 6-10 | 5-10h | World of Tanks | Neutral |
| 6 | M | -24 | High | 6-10 | 10-15h | CS:GO | Positive |
| 7 | M | -24 | High | 6-10 | 1-5h | Runescape | Positive |
| 8 | M | 35-44 | Medium | 6-10 | 0 | Mu Online | Neutral |
| 9 | M | 25-34 | High | 1-5 | 1-5h | Word of Tanks | Positive |
| 10 | M | 25-34 | High | 11-15 | 15-20h | Heroes and Generals | Neutral |
| 11 | M | 35-44 | High | 1-5 | 0 | Nothing | Negative |

We aimed to have variability in the attitudes towards F2P. The attitude towards F2P games was measured with six claims from the survey with a seven point Likert scale (1 = strongly disagree, 7 = strongly agree):

- F2P developers are only interested in making money.
- F2P games try to cheat the player into spending money.
- F2P games are not real games.
- F2P games are ruining the game industry.
- You have to pay to be able to enjoy F2P games.
- I do not like that F2P games are becoming more common.

The averages of the answers of these six claims were calculated, and attitudes of the interviewee candidates were categorized into positive (p<3), neutral (3≤p≤5), or negative (p>5) towards F2P games. Five of the selected interviewees had a positive attitude, four had a neutral attitude, and two had a negative attitude.

The interviewees were asked to fill a pre-study survey to gather information about their recent playing habits and attitudes to save time during the actual interviews. The interviews were semi-structured, thematic interviews and they took from 38 to 93 minutes each with an average of 64 minutes. The interviews were conducted during 2015, one in person, and the others as phone interviews. The main themes in the interviews were game experiences, use of money, attitudes and ethics, and the future of F2P games. Four researchers conducted the interviews.

The interviews were audio-recorded, transcribed, and analyzed by employing a deductive thematic analysis [21] by one researcher. We set to analyze the interviews from four main themes:

- Perceptions of F2P games
- Experiencing F2P games
- Using real money in F2P games
- Ethical issues in the F2P model

## 4 Results

### 4.1 Perceptions of F2P Games

*4.1.1 Good F2P Games Improve Attitudes.* While we purposefully tried to select interviewees with both negative and positive attitudes, during the interviews the participants expressed positive attitudes towards F2P games. Those who were selected based on their negative attitudes stated that their attitudes towards the model had changed in a more positive direction. The biggest explanation offered for this change was positive experiences with F2P games during the time period between the survey and the interview. However, previous bad experiences might have had long-lasting effects on attitudes.

> Yeah, now because of this Neverwinter the attitude is positive, because I feel that the free-to-play side is done right in that -- It might have been even almost a year ago when I stopped playing that Mafia Wars. But it left bad feelings for a longer while, as [the ripping off] started to be so transparent. (ID 11, high, negative)

As many as nine of the interviewees estimated that general attitudes towards the F2P model are more negative than their own. According to the respondents, general opinions towards F2P games

are not always based on facts, and some may for instance have the misconception that all F2P games are pay-to-win. On the other hand, some interviewees had noticed a change in the public's attitudes towards the model, due to newer, better F2P games, which have removed the stigma.

> In the beginning it was really negative and everyone was like hell no, now this game is ruined too and blah blah blah. But like I said, there are eight bad ones and two good ones. And when the two good ones appear, they will turn the crowd's feelings. (ID 10, high, neutral)

*4.1.2 Free Games can be Expensive.* When describing the positive aspects of the F2P model, the absence of a purchase price was seen as the clearest benefit of the model. It allowed them to try games before committing and paying for them, and even then, the payment was described as voluntary and the amount of money spent on the game could be chosen by the player freely.

Compared to the retail model, where the player had to pay a large sum beforehand and had no guarantees about the quality of the game, the F2P model seemed more consumer-friendly. This was even more emphasized when compared to early-access games, where the consumer pays for the game when it is not ready and has no guarantees whether the game will even finish.

Not all F2P games were seen as equal. The majority of the descriptions of both negative and positive F2P games had to do with money. Some of the games described as bad included paywalls (meaning the game prevents or considerably hinders the player's advancement in the game without spending money) or aggressive marketing of in-app purchases. According to the interviewees, non-paying players should have a fair chance against paying players, and pay-to-win games were considered as the worst kind of F2P games.

However, the line where a game became pay-to-win was not always clear. Some games could not be won with money, but they did offer some benefits for paying players. Whether this was bad or not was not self-evident for the interviewees.

> Okay, in principle World of Tanks could be blamed of being pay-to-win. The premium tanks in it are… Well, I don't think they are good enough that they could be said to be pay-to-win. Plus, in that game, it's ultimately the player's skill that matters. (ID 5, high, neutral)

There was a consensus that F2P games should not only be able to be played without using money, but they should be enjoyable experiences for non-paying players. Interviewees felt strongly that everything that is sold should be possible to gain through playing as well. Requiring grinding was seen as reasonable, but one interviewee concretized that if it was only theoretically possible to reach everything by playing and not in practice, it felt like a fraud.

> Then at some point you started to notice that it wasn't possible to reach the reward by normal playing, but to get there you should have used a little money and buy the items to reach the reward. It started to feel like a hidden hoax. (ID 11, high, negative)

That being said, the players did want the games to sell in-game items. A good game was described as one that would make the

player willingly spend some money on it. A nice selection of items to sell and a well-organized store increased this desire.

One interviewee explained how a well-implemented trading system between players was an important but still under-utilized feature. Steam's marketplace, which has the real feel of a stock exchange and is easy to use, was in this respect spoken highly of, and recommended as the model to copy elsewhere.

> That kind of trading system [as in Counter Strike] in other games too, it definitely works. I wonder why it hasn't been researched anywhere else yet. There are unspeakable amounts of money in Steam. Just copy the marketplace system from Steam and attach it to their own game's items. It would be an unbelievable money hole. (ID 10, high, neutral)

The nature of F2P games as services rather than one-time releases shows in the interviews. Regular updates and new content were required as well as meaningful daily quests. These quests seem to be of extreme importance, and they are the reason to visit the game daily. These limited missions give better rewards such as more experience or in-game currency than the rest of that day's activity, and thus attract players to visit the game frequently.

*4.1.3 F2P Games Influence the Whole Industry.* The division between F2P games and other digital games was usually clear, and they were not treated the same way. It was noted that you could not expect that much from a free game, and non-F2P games were sometimes referred to as "proper games". The division of games continued within the model, and especially mobile F2P games and computer F2P games were seen as separate worlds. Typically, mobile games were seen as less worthy, and more prone to including the negative sides of F2P.

Some of the attitudes towards the model were based on the players of those games. As free games, they attract a different kind of an audience than games that have a purchase price or a monthly fee, and one interviewee mentioned that F2P games attract a crowd that he would rather not interact with.

The presumed negative consequences of F2P games were seen as something that could reach further than just F2P games themselves. It was noted that many developers turn to the model when they notice that F2P games get majority of the revenue, and the success of the model has encouraged some retail games to include in-app purchases that would bring additional costs on top of the single purchase, which was seen as a negative trend.

For some time, it has been common that games with a purchase price or monthly fees have been converted into F2P games. This transition might change the game, and sometimes this change has been for the worse. One interviewee described how after such a change, the game had remained enjoyable for him, as he continued to pay the monthly fees, while was almost unplayable for his friend, who played without paying.

## 4.2 Experiencing F2P games

*4.2.1 F2P Games do not End, they Fade.* Players used similar ways to choose F2P games as other games: visibility in the media, hype or popularity, reviews or charts, friend recommendations, or seeing screen captures or video of the game were all mentioned as reasons to try out a F2P game. In addition, social reasons play a part, for instance choosing a game that can be played with or is already played by friends. The game company or the game's visibility in the eSports scene can influence the selection as well.

> I'm a really big eSports fan, and in fact, I have always changed the game a bit according to what is hottest in eSports. (ID 6, high, positive)

The threshold to try out a new F2P game was lower than in other games, as there is no entrance fee. This was also a drawback, as it is also easy to leave the game and transfer to the next one if it does not grasp the player's attention right away. The interviewees quickly saw whether the game was worth continuing, and if the first impression was negative, the game was not returned to.

> So if the first bite is a shitty experience, it is very unlikely that I'll ever try the game again. (ID 4, medium, negative)

A game can manage to keep the player's initial interest by offering enough content, a good sense of progression and exploration. This beginning phase was described as exciting. Typically after the game was familiar enough, either it started to find its place in the player's daily routines, or the player started to lose their interest. Sometimes there was a specific point when the player had noticed that the excitement started to fade. This could be for instance due to achieving a long-pursued goal.

> Probably at the point when I got the first tier 10 tank [in World of Tanks], I felt a bit like, well, now I have it in my garage. After that, it started to fade a bit, the excitement from the game. (ID 5, high, neutral)

While it was easy to switch games soon after beginning to play, moving from one game to another after playing it for a longer while was not as simple. Sometimes the interviewees had continued playing a F2P game long after the game itself had become boring or unrewarding.

When rationalizing for continuing to play for so long, two main reasons arose: either the player had invested so much in the game that it was hard to give it up or the social reasons kept them coming back. Investments meant time or money put in the game, which was felt to go to waste if the game was quit, or skills gained, which would not transfer to a new game. Social reasons included the game still being popular enough, the social ties made in the community that would be left behind, or the player's friends who still played the game and with whom the interviewee wanted to spend time.

Daily quests were important in keeping the player in the game longer, as this was the content that players might continue completing. Similarly, new content increased the will to continue or even return to the game. However, too many special events and the feeling that the player should spend too much time or money to keep up with the content can also drive the player away.

A break in the playing career has effects on playing. Sometimes it made the player see that they do not need the game anymore, while for others it could spark a new interest. Returning after a break might mean that the player has fallen behind and might feel

like money is required to catch up. In some games taking a break and coming back was easier than in others.

> In Hearthstone, it's easy. You can go without playing it for two months, after which you can play it for a week five hours every night. Doesn't matter what the situation is. I don't think I will ever actually be totally fed up with Hearthstone. (ID 6, high, positive)

While players might prolong playing for a long period, at some point they usually finally quit the game. The reasons for quitting were realizing that the game has already shown everything it had to offer or that it required too much from the player to keep continuing.

> At some point you get this feeling of boredom, that I kinda have seen everything, there's nothing why I would want to stay here anymore. (ID 3, medium, positive)

After the player had finally quit a F2P game they had been playing for a long time, in some cases they might not understand what they saw in the game or why they had played it so much.

*4.2.2 Best and Worst Experiences are about Social Situations.* Progression and story wise, F2P games evoked less or milder feelings than other games. While feelings of achievements were present when advancing in the game, these were not usually memorable. The games never actually ended and did not offer the ultimate feeling of accomplishment.

> Even though [Star Trek Online] is supposed to be a role-playing game, the role-playing aspects are quite small. That Witcher 3 [a non-F2P game] is kind of a completely story-driven single-player experience in which at least I get immersed completely. (ID 5, high, neutral)

The strongest feelings were connected to playing with other people, and described as alternating feelings of frustration and achievement. Especially the best game experiences frequently included a social aspect, whether it was having fun with friends, having a well-functional co-operation with the team, or beating the opponent in a tight situation.

Similarly, many of the bad experiences were attached to other people. There seems to be toxic behavior on the communication channels connected to F2P games. Some interviewees speculated that some players take these games too seriously and then get mad if they lose or something goes wrong. Hacking and the use of bots can ruin the experience for others, but plainly different skill levels among the players can lead to dissatisfying experience. In some cases, the community had become so toxic that the player wanted out. Some games tried to avoid this by restricting the ways players could communicate to each other.

> But I think some people react to it unreasonably. Their fits and tantrums and so on that happen on the forums afterwards, they are something that pushes away from playing or from the game in general. (ID 4, medium, negative)

Social features were seen as an important part of F2P games. While some played alone, most played with friends, within a certain community or clan, or with strangers, although playing with someone they knew was preferred. Playing with strangers was less organized, and could include players with lower skill levels and unpleasant communication. With friends, it was easier to coordinate actions and play as a group as well as help and guide the players that were not doing as well as others.

Typically, the player was alone in the physical space and the possible communication happened either inside the game or through other communication channels such as Skype or TeamSpeak. While sometimes these game sessions were planned beforehand, more often they were described as first checking if someone happened to be online and then asking if they would like to play, making game sessions spontaneous.

When possible, being in the same physical space with others, such as at a LAN party, made the experience even better, but these situations were the exception. As playing together required everyone to have their own device, playing in the same space outside special events was seen as too inconvenient.

## 4.3 Using real money in F2P games

*4.3.1 Faster Advancement is worth the Money.* The interviewees saw their use of money generally in a positive light, and one interviewee claimed that if money would make the game experience better in a game you enjoy, there was no reason not to pay.

> If you like the game, I don't see it as anything else than a reasonable investment when you use money on it. I think it's stupid not to use money if you like the game. This is a perverse thought to many. (ID 4, medium, negative)

What was sold in a game influenced in interviewees' attitudes towards paying in games. On one hand, purchases that help the player to advance faster were a bit frowned upon, as it was felt that in time they would make the game into pay-to-win. On the other hand, advancing was also the biggest reason to spend money on a F2P game among the interviewees. Especially if the player could skip boring content by paying a sum of money to get what they wanted, the purchase was seen as being worth it. Sometimes the faster advancement was used to skip to the next phase of the game.

> I would say that mostly I put money in it a bit before the endgame so that I feel that I've already got a lot done, and now I would like to get […] all these elements open so I can see what the endgame is. (ID 3, medium, positive)

One way to advance faster was paying a periodical fee. Subscriptions offered several advantages; for instance, in World of Tanks, buying premium time gives more in-game currency and experience from playing matches, making advancing in the game faster and easier.

Spending on exclusively cosmetic items did not cause similar conflicts, as they have no effect on gameplay. Due to this, selling cosmetic items was seen as more acceptable than items that offered an advantage. While some players liked buying these items, they described them in a belittling way as "needless junk". Others felt

rare items with a distinct appearance earned the player recognition in the game, and that cosmetic items had even a deeper function:

> In a way I have a feeling that now I own a part of this game. (ID 1, high, neutral)

The interviewees also recognized different functions for the content they paid for. Cosmetic purchases could create positive feelings in some games, while in other games it was more important to advance with money.

> In League of Legends and in CS:GO they bring a certain kind of positive atmosphere, and in Hearthstone they are a possibility to advance. (ID 7, high, positive)

Whether the money spent offered a temporary boost or permanent value influenced as well. For instance, the expansions in Hearthstone or premium tanks in World of Tanks were seen as good investments, as they could be enjoyed repeatedly.

The game developer or publisher behind the game was one of the motivations to use money on a game. Be it supporting small or local companies or the company appearing as "one of the good guys", appearances matter. For instance, if the company seemed shady and the player could not be sure where their money was going, they were more reluctant to spend it. In some occasions, the interviewees noted that if the game was good and fair enough, they wanted to reward the company by spending a little money. Similarly, if the game supported the player's values, they might want to support those values with money. These might be reasons enough for some even if they did not feel they would get anything else out of the purchase.

> If you use 6-16 hours per day on a game, you do want to help the publisher so you can do that in the future, too. (ID 6, high, positive)

The payment processes in F2P games were described as much easier than they had been before, and this was said to be one reason that F2P spending was more impulsive than buying retail games. Sometimes paying was perceived to be even too easy, in some occasions resulting in regrets later.

Some admitted that they were sometimes too tempted to buy in-game items and had to restrict themselves. One interviewee explained how some items in the store might haunt him for days, and the will to get them might grow too hard to resist.

> But when a certain thing is desired for a couple of days, you think about it and look at it, the need to get it becomes compelling. It's a bit hard to restrain it then. I kinda have to get it if that hits. Otherwise, I'd have to take my credit card info away and give the card to the missus and ask not to tell me the number. They become compulsions of sorts. (ID 10, high, neutral)

*4.3.2 Spending a lot is not always a Problem.* Spending money was often compared to spending money on any other hobby or buying for instance a bag of candy. Sometimes spending money was also seen as an exciting vice.

> Usually [I pay money] in the evening when the children are sleeping and the wife is on the laptop or maybe watching the television. It's like going for a cigarette as a young kid, that kind of feeling. It has its own charm, I can't explain it, I'm sort of addicted to it. (ID 10, high, neutral)

On the other hand, interviewees who had used several hundreds of euros on one game did not feel that it was problematic to them. When compared to how much time they had spent with the game, it became relatively cheap.

> If you'd think it so that you have played about three thousand matches, and one match takes about, if you round it down […], it's maybe 20 minutes. Then you start to think how many hours it is and start to divide that 600 euros. Then you think that, well, 50 cents an hour or 40 cents an hour. It doesn't feel bad. (ID 1, high, neutral)

Interviewees also explained how they calculated if a purchase was worth the cost. If they could skip a lot of grinding by buying the item they wanted, it was seen as reasonable. Spending on a F2P item could also function as a reward. While sometimes the purchases could be carefully considered, other times they were much more spontaneous.

> Depending on the game [I decide whether to buy or not] by counting, very coldly. Counting how much in-game currency is needed for me to get the new add-on free. Or how much time it takes in the game, that in other ways doesn't take me forward in any way. I think in these cases it's more sensible to use money to get rid of that time sink (ID 4, medium, negative)

*4.3.3 Paying Changes the Game.* When advancement could be bought with money, it brought problems inside the game, and divided the players into paying and non-paying players, who were not equal. An interviewee who had used money explained that conquering other players due to him spending money made him feel powerful, but also conflicted.

> And then there's these who actually play free-to-play and don't agree to pay, then unfortunately it is easy to mess them up. It brings a sense of power, easily increases the use of money. Shouldn't be pay-to-win but it does become such in the passing of years. (ID 10, high, neutral)

Furthermore, the tension between the two groups of players sometimes erupted in aggression. Paying players could act like they were better players and mocked others when they won, while non-paying players called out the players they thought were using money and treated them with disrespect.

Some powerful items have a distinct appearance, making one of their appeals cosmetic. For instance, an interviewee described a situation where he had gained a powerful and rare knife from a loot box that the game gives to players. These boxes contain items of random value, and they can be opened with keys that cost real money, making them lottery tickets of a sort. After getting the knife, the player used it for a while in the game, gaining a lot of attention and recognition, and then sold the item for a high price. Even though this money cannot be transferred to the player's bank

account, it can be spent on any Steam games, making it valuable outside the game.

## 4.4 Ethical issues in the F2P model

*4.4.1 F2P Makes Exploitation Easier.* The F2P model as a whole was not typically seen as unethical; instead, it was seen that ethicality is up to individual games and developers. As games could be played for free and no one was forced to spend money on them, in some sense the model was seen as even more ethical compared to models where the player had to pay before knowing whether or not they will enjoy the game. Paying inside the games for additional content was usually not seen as something inherently wrong.

> I think it's just like the same as if you would go to buy a bag of candy from the store, it's the person's own business. And there's nothing wrong in that. They are products as any other. (ID 1, high, neutral)

However, the F2P model does seem to have some typical problems. As pointed out by one interviewee, the model allows exploitation very easily, making it possible for children or other players who are vulnerable to temptation to spend major amounts of money and negatively influence their quality of life.

> But of course weak individuals are taken advantage of by these companies. I think that is what makes it more unethical. (ID 4, medium, negative)

Pay-to-win came up as an issue when speaking about ethical issues as well. This was seen as a problem especially when the game included direct competition between players, but also if the player could just buy everything without playing. Whether this is an ethical problem or mere annoyance divided the respondents.

Aggressive monetization and milking the players for as much money as possible was another problem associated with the model. The game deliberately hindering the experience so that it became tedious to play properly was seen as wrong.

> If it's so that the player has to pay to play it properly, and is forced to pay through frustration. Then that is wrong in my opinion. (ID 1, high, neutral)

The game asking a wide range of permissions to allow playing was seen as unethical, especially if the game would then spam on social media and make the player function as an advertisement for the game.

> That social spamming in social media, how it takes advantage of the players to spread itself like a virus and advertise itself. I think these aspects in games are ethically very wrong. So to play the game, give us a permission to everything. (ID 4, medium, negative)

One clearly unethical point was false advertising and misleading the player, such as a game being marketed as free and then including paywalls that obstruct playing without money. Transparency and fairness were called for in these cases. Some had come across as pressuring the player and even trying to get the player to pay by accident. Getting a player addicted first and then ask for money to continue was even compared to drug dealing:

> If someone gets hooked, it becomes a bit like drug dealing in a way. Somebody is hooked on something and 'well you want more of this, but you won't get any it if you don't pay.' At that point I think it becomes very unethical. (ID 1, high, neutral)

*4.4.2 Responsibility to Players, Tools for Problem Gamers.* As with any activity, there are addicts and other problem users for whom spending too much money or time on F2P games becomes a problem. The question that remains is what to do about these problems.

The interviewed players felt that fully competent adult players are responsible of their own behavior. However, game developers were seen as being responsible for delivering fair and transparent information about the games for players, so players are able to make sensible decisions about their playing and paying. Developers were held responsible for not exploiting vulnerable groups, such as children or problem gamers, with unethical designs.

In order to keep playing and paying inside acceptable boundaries, the interviewees discussed solutions familiar from online gambling. Many online gambling sites and games offer either voluntary or mandatory tools for tracking one's playing behavior and for limiting the amounts of time and money used in the game. Similar limitations and tools to track one's spending were suggested for F2P games as well. These kinds of limitations were seen in a positive light, and they were not believed to hinder the game experience. Some thought that this should be voluntary for the developer, while others speculated that it was doubtful that the game companies would start providing these kinds of tools on their own, as they were not seen to be beneficial to business.

The interviewees did not hold children similarly responsible for their use of money on games as adults, and it was usually seen as the parent's responsibility to keep credit cards behind passwords and follow and monitor their children's playing. Here, too, monitoring tools for parents and age checks were suggested. Some mentioned that games that target children should be regulated more carefully, and children should not be the target of in-app purchase marketing.

Some interviewees were sure that many game companies deliberately designed the game unethically, while one interviewee suspected that in F2P unethical results were more due to clumsy design. More widely known companies with a good reputation were trusted, while less known companies were believed to act unethically or even maliciously. Again, mobile games were seen to include unethical solutions more frequently, and F2P money game companies who developed for instance F2P casino games were seen as more suspicious than other F2P game developers.

## 5 Discussion

F2P games have evolved during the last few years, and game development professionals have predicted that this will improve the overly negative attitudes towards the model [2]. The results of this study support the assumption. The interviewees that had previously expressed negative attitudes towards F2P games explained having had experiences with better games, which had improved their

attitudes. Interviewees had made similar observations in general attitudes, which were seen as more positive than before.

F2P games were sometimes seen inferior to other games, which is similar to the findings of Paavilainen et al. [29]. Other games were sometimes referred as "proper games" compared to F2P games, and inside the model, mobile F2P games were sometimes seen inferior to other games of the model.

Obviously, there is no objective line between good and bad F2P games. Some seek casual single-player time sinks, while others want meaningful social play. What is a good game for one can be an example of poor implementation for another. However, there are some features associated with bad F2P games, and these negative aspects were similar to those expressed by game professionals in a previous study [2]: games should not have paywalls, aggressive monetization or pay-to-win mechanics, and games should be enjoyable and everything in them achievable without money. It seems that developers are aiming at the same things as what players want. However, actually getting everything for free can be sometimes comparable to winning a jackpot in gambling games [18] and the line when a game becomes pay-to-win is blurry.

All of the interviewees had played F2P games, and many had a lot of experience with these games. Most negative attitudes could be expected from an audience not actively playing the games, and having preconceptions of the model. Media plays a big role in the public image of F2P games. In news articles F2P games have appeared mostly in a negative light: how F2P games might be unfair or even illegal [22, 25], how children are using money without their parents' knowledge [7, 23], how only a small minority of players pay for the majority of the revenue [5, 11], or how the game publishers are trying to get money from heavy-spenders [24].

While F2P game players have a smaller threshold to trying new games, the games also have a higher probability of losing players after the very beginning of the game. However, when the player has played a game for a longer while, it becomes increasingly difficult to stop playing even after the game has become boring.

These findings stress the importance of different phases in the timespan of playing. The first moments, or the onboarding phase, are crucial in a F2P game, and require substantial focus in the design process. This is also supported by previous research [34].

In the endgame phase, the importance of new content and daily quests is high. These were especially important if the player was on the verge of quitting the game. Supporting and maintaining social communities around the game and keeping them as free from toxicity as possible is important in the later phases of gaming. F2P games must also pay special attention to how taking a break from the game influences the game experience, as this is one of the key points between continuing and quitting.

The sociability of F2P games was important to many interviewees, while in previous research F2P game experiences on social networks have been described as "single player games with a social twist" [29]. Especially computer F2P games were often played in communities or with friends, and the social situations were the most emotion-provoking experiences. The social situations were not only positive, as communication was sometimes unpleasant and included tension between the paying and non-paying players.

Where in previous research spending money on a F2P game has been seen as pointless [29], in this study it was not so. This is naturally due to the selection process, where we emphasized players who had already spent money on the games. There are still players who have strong principles against using money in games acquired for free. The games might be seen as too simple and not worth their money. However, for those who paid, it had become a commonplace activity.

While getting an advantage with money was seen as problematic, skipping boring content and compensating for a lack of time were widely accepted ways to use money among the interviewees. By using money in this way, players are able to enhance the quality of their playing time [18]. Selling cosmetic items is the least conflicting way to spend money on the game, but simultaneously it is harder to motivate players into purchasing them. Usually a social aspect is necessary, so the player can show others their special gear.

Many concerns have focused on heavy-spenders, but none of our interviewees thought they were spending too much money or saw it as a problem. Spending money was compared to spending money on any other hobby, and the interviewees had calculated that the amounts of money were reasonable. While some mentioned sometimes being too spontaneous in their purchases, a more typical situation included first considering whether the target of money was worth the money or not.

The purchasing process has become easier than before, which on its part has had an important impact in in-app purchases becoming more commonplace as well as more spontaneous. Before, one of the obstacles for using money had been distrust and the difficulty of using money [29]. The easiness lowers the threshold for the first purchase, and if the experience is pleasant, it is much more likely that the player will spend again.

In gamer culture, addictiveness is often seen as a positive feature in games [20]. On the other hand, it is also possible to get addicted to games in a way that can cause serious problems in players' life. This kind of addiction to games was seen negatively by the interviewees and game features that feed the problematic behavior of addicted gamers or other vulnerable groups, such as children, were condemned. However, the overall view of the interviewees was that the responsibility of controlling one's own playing lies on individual players, not on game developers. This view is similar to responsible gambling principles where the final choice of whether or not to commence playing remains with the individual. However, in order to make reasonable choices, players must be informed about the details of an activity [6]. In the context of F2P, this means that players must be informed, for example, about the in-app purchases, viral marketing, real costs of any items, and about the possibility to play without paying [30]. If players make decisions based on accurate and sufficient information, the responsibility of controlling gaming is shifted more towards the players themselves.

Children were brought up as one ethical problem point, which has been discussed by game development professionals as well [2].

At least Google and Apple have already settled legal cases and agreed to refund children's accidental purchases [31, 32], while Amazon has been forced to offer refunds in court [17]. Instead of handling accidental purchases afterwards, this and other problem usage could be remedied with the suggested monitoring tools and self-imposed limitations similar to those used in the gambling industry [6]. These kinds of tools are often voluntary and players can themselves decide what their maximum limit for spending would be [12]. Because F2P games rely on heavy spenders as their main income, it might feel counter-intuitive to use tools that might limit this spending. However, these tools protect against spontaneous spending peaks, not against high expenditure per se. It is also good to note that implementing responsible gaming tools can be good PR to a company [9]. The image of a game company is one of the major reasons to spend or not spend money on a game, and good PR could give a game company an edge instead of posing as a risk to lose income.

The ethical side is of utmost importance in order for the F2P model to keep on growing. For instance, the annoyance of social media spam has been noted in previous research [28], but the ethical problem of a game posting on social media without the player's knowledge is even more critical to fix.

If F2P games are considered as something that cause addiction and problematic behavior, they might be the target of enforced policies, if companies themselves are not doing anything to minimize the possible problems. Some regulations have already legislated by for instance the European Commission [8] and some platforms have been forced to remove the "free" markings on F2P games and need to indicate clearly, if a game includes in-app purchases. In Japan, certain monetization mechanics in mobile games have been banned due to government legislation [1], while the loot box monetization mechanic, commonly used in F2P games, has been banned or is under investigation in several European countries [15].

Before, players might have felt as being manipulated into spending with aggressive marketing and games being rigged towards achieving the maximum spending possible. Attitudes towards paying in F2P games have been negative, while in the newer generation of games paying has become more of an everyday thing. Being able to enjoy the game without money is possibly the most important feature for a good F2P game, and as players feel they are getting their money's worth and are not feeling forced to pay, paying becomes more of a positive activity. These games already exist and fare well both critically and commercially [3].

## 6 Conclusions

In this paper, we have examined players' perceptions and experiences with the F2P model. The selection process of the interviewees deliberately focused on paying players, and from those, on high-spenders. Therefore, the attitudes towards the F2P model may be more positive as these players have invested in the games significantly. The gender distribution is heavily skewed towards male players, which can also influence the results. The qualitative approach aimed into an explorative study, and the results are not to be generalized.

The findings show an important perspective into how F2P players see and experience the games they play and pay for. While the model was seen as positive and ethical, it included characteristic problems: paywalls, pay-to-win mechanics, content gained only through paying, aggressive monetization, and making exploitation easier. Single games had a great impact in the attitudes of the interviewees, be it positive or negative.

The games were typically enjoyed with other players, and social situation offered the strongest feelings and best and worst moments of gameplay. The crucial moments for gaming careers were the first moments, when it was easy to switch from one game to another, and the endgame, when the player was already getting bored with the game.

For the paying players, paying in F2P games has become a normal activity. Even larger sums were seen as reasonable when comparing how much the game offered in return for the money. Paying in F2P games was more spontaneous than buying other games, partly because of the easy purchase processes, but in many occasions, the value of money was still evaluated beforehand. In this light, most high-spenders saw themselves as sensible consumers, while some mentioned even being addicted to purchases, seeing them as an exciting vice.

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