

# UX and Joy—THE IMPACT OF THE ADDICTIVENESS OF VIOLENT ATTRIBUTES OF VIDEO GAMES

Name: Jiayi Chen

ON IMPROVING PLAYERS' PROSOCIAL ABILITY AND SOCIAL INTEGRATION

## Introduction & Background

### Violent video games

Nowadays, video games have become one of the most common forms of entertainment in the lives of modern people, especially young people. But video games are also controversial because of their **addictive nature and the violent elements** contained in some of them. The causal relationship between these elements and anti-social behaviours has been the focus of attention from all sectors of society.

### Anti-social behaviour

The exploration of anti-social behaviour and its causes has been unceasing in all sectors of the society, in which **how to effectively prevent and reduce the factors that produce anti-social behaviour** has become an important topic.

Anti-social behaviour is often claimed to be the result of an inability to experience empathy, and **enhancing empathy can inhibit anti-social behaviour in individuals to some extent**.

### Empathy

According to some existing studies on the relationship between empathy ability and antisocial behavior, it can be inferred that empathy ability is indeed a key summary factor of antisocial behavior, and the stronger the individual's empathy is, the individual destroys and ignores the relationship between self and others. The less likely it is to have a relationship (i.e., antisocial behavior).

## Status Survey

Evidence suggests that the average gaming time of video game players has reached 6.3 hours per week. Behavioural addictions such as Internet Gaming Disorder (IGD) have been included in the DSM-5 appendix, with prevalence rates ranging from 1% to 9%. These figures also reflect the strong attraction of video games to gamers, the fatal lure of video game addiction, and the fact that IGD seems to be a global health-related problem. Video game addiction stems primarily from the confidence and satisfaction that players feel that they don't feel in real life

Violence in existing, sustainable video games is not just simple violence without any cause, but a meaningful conflict effect. This can also be a side effect to help reduce the player's feelings of guilt and perception of moral disengagement.

## User research & testing

### Questionnaire & Interview

- The entire survey process was split into two parts: the questionnaire and the interview.
- The first two parts shown in the list of auxiliary purposes were designed and summarised in the form of a structured questionnaire, which the participants were asked to fill in at the beginning of the survey process.
- The semi-structured interview was then conducted with reference to the results of the questionnaires completed by the participants, and the interview questions were adjusted according to the individual variability of the participants within a certain range.

### Testing

- Playing the selected game continuously for a week, length of play per day: 30 minutes or more - recording
- The day before the test (Day 0): Before starting the test, introduce the participants to the entire testing process and the purpose of the test. Ensure that they understand each of the next steps and provide them with a basic introduction to the test game and how to play it. At the same time, distribute the IRI and MIIND questionnaires for participants to fill out (based on the game description and pre-test level of personal empathy) in order to get their baseline data.
- On the first (Day 1), third (Day 3), and seventh (Day 7) days of the test: participants were asked to start playing the game Polar Disco. The duration of the game was arranged appropriately by the participants to ensure that they were in a familiar and comfortable game-testing environment. At the end of the game on the corresponding day, participants were asked to fill in the IRI and MIIND questionnaires. It is possible to have some open conversations with the participants on the corresponding days to understand their experiences and feelings about the game.

## Research question

**How can the player's satisfaction with violent video games be used in game design to enhance empathy and the game experience?**

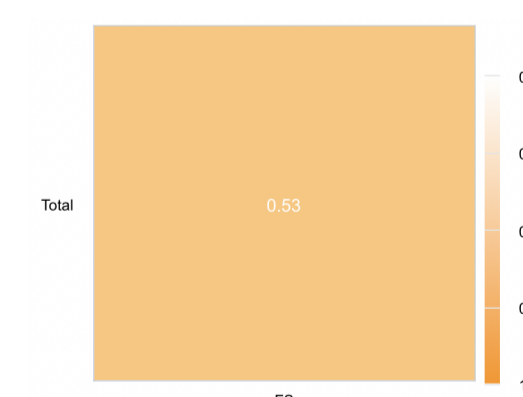
- How do players generate joy in playing violent video games? What are the causes?
- What elements or features of violent video games produce the satisfaction that leads to addictive behaviour in players?
- Is there a correlation between the satisfaction violent video games generate for players and their engagement in anti-social or pro-social behaviour?
- Can violent video games train players to be empathetic?
- What is the level of player perception of violent attributes in video games?
- How can the design of violent video games be optimised to enhance players' gaming experience and train them in empathy, thus leading to more pro-social behaviour?

## Research objectives

- Secondary research was used to gain insight into the relevant concepts in the topic and to initially explore the relationship between violent video games and players' empathic abilities and their real-life behaviours.
- Designed and planned questionnaires and user interviews to gain an in-depth understanding of potential users' feelings about violent video games and their gaming experience.
- Existing case studies conducted and experimental tests aimed at determining the positive effects of violent video games on training players' empathy.
- Relevant test results are analysed and summarised to identify appropriate solutions for exploring how to enhance the players' gaming experience while guiding them to enhance their pro-social skills and social integration in the design of such video games.

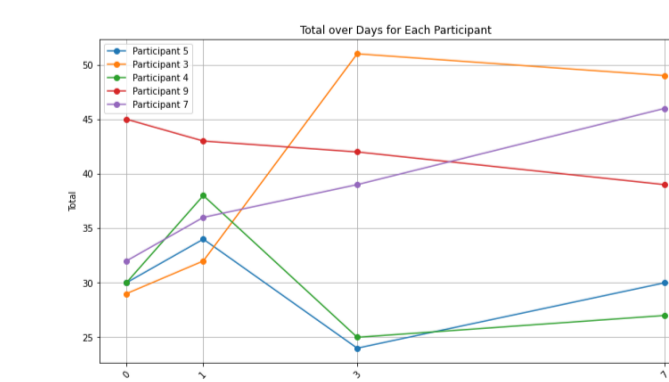
## Research results

### Player Satisfaction and Empathy



- The Pearson correlation coefficient is used to indicate the strength of the relationship.
- The value of the correlation coefficient between FS and Total is 0.529 and shows significance at the 0.05 level, thus indicating a significant positive correlation between FS and Total.

### Participation in violent games and cognition of violent attributes



- As can be seen from the graph, the overall empathy scores of most of the participants in the experimental group showed an upward trend.

## Conclusion & Future work

- After preliminary research and testing, the video game mechanics that drive player addiction were meticulously analysed and interviewed. In this process, it is easy to conclude that in a video game, the game mechanics of reward and punishment, winning and losing, role-playing and status change are the most attractive factors for players to keep engaging in the game experience. Therefore, this also provides a direction for the game design industry to improve user stickiness and player game experience.
- For violent video games that emphasise the interaction between video game game mechanics and players' mental states, player satisfaction with the video game has a positive correlation with players' empathy.