

CMP6200 Individual Undergraduate Project
DIG6200 Individual Undergraduate Project
2019-20

Full Project Proposal

**Loot Boxes and their
connection to gambling and
gambling addiction**

Computer Games Technology

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Table of Contents

1. Introduction	4
1.1. Project Title	4
1.2. Background	4
1.3. Key Themes/Topics	4
2. Aims and Objectives.....	5
2.1. Project Aim.....	5
2.2. Project Objectives	5
3. Rationale	6
3.1. Rationale and benefits	6
3.2. Industry relevance	6
3.1. Research relevance	6
4. Tasks and Methods	7
5. Resources	8
6. Literature Search Methodology	8
7. Risk Assessments	8
7.1. Health and Safety	8
7.2. Project Risks	8
8. Ethics Review	9
9. Bibliography	10

IMPORTANT – PROJECT origin – please complete the appropriate section below

Projects originated:	Please complete:	
in second year module	Year 2 Module code / name	
from Placement	Placement company name	
from Research List	Name of Research Centre Name of Supervisor	
from Industry List	Name of Company Name of Supervisor	
from Tutor lists	Name of Tutor	
by student only	Yes / No	
If you have spoken to a member of staff regarding them supervising your please enter name here		Chris Creed

For initial approval and allocation of supervisors Sections 1, 2., 3 and 5 are the minimum sections that must be completed.

1. Introduction

1.1. Project Title

Loot Boxes and their connection to gambling and gambling addiction.

1.2. Background

Loot boxes are quite a common practice in modern day video games. The idea is that the player can spend in-game currency, that can either be earned in game or purchased with real money, in order to open a 'box' which contains virtual rewards to be used within the game. This includes but not limited to new weapons, new vehicles, new costumes etc.

With these loot box systems becoming more popular it is a common thought that they are a form of gambling. These systems are believed to have the un-desired effect of instilling unhealthy mental behaviours that could lead to the users developing an addiction to gambling in other forms.

The idea for this project is to test not only how addictive these loot box systems are but also to see if there is any connection to other forms of gambling. This will be achieved by checking results gathered in this survey against the current known methods of detecting gambling addiction displayed by people.

1.3. Key Themes/Topics

A key theme for this project is to investigate mental health and assess the impact of loot box systems within video games and what impact they have on the mental health of its users. This includes looking at the effect of these systems on the chances of developing gambling addiction. It will also link into looking at other mental health issues such as anxiety and depression that could be developed due to potential gambling addiction conditions.

The themes and topics of this project are as follows:

- Mental Health
- Gambling Addiction
- Loot Box Systems in Video Games

2. Aims and Objectives

2.1. Project Aim

The aim of the project is to find a connection between video game loot boxes and gambling and a gateway to gambling addiction.

2.2. Project Objectives

- Research what gambling is and the factors that make a person have gambling addiction and how to collect data that correlates to this research, this should be done before any other research or work commences, within the first week of the project start date.
- Research existing implementation of loot boxes in video games in order to help create a loot box opening simulator by analysing current systems and replicating the look and feel to make the results as accurate as possible (Deadline - 2nd November 2019).
- Research current findings about the connection between video game loot box systems and gambling if any exists and extract the data that should be collected from this study in order to make sure findings are reliable and consistent (Deadline – 2nd November 2019).
- Create a Gantt chart to keep track of all important deadlines and to make sure the project stays on track as well as show that progress is successfully being made (Deadline 9th November 2019).
- Follow an Agile methodology as the project progresses by creating a Trello board to break the main task into smaller, easier to handle tasks. As part of this Agile methodology have regular Scrum meetings with supervisor to inform of progress and receive feedback on the project. The results of these scrum meetings should be recorded and kept within a logbook.
- Create a loot boxing opening simulator in Unity Game Engine that gives the participant a set number of virtual coins and presents several tiers of loot boxes, each costing a different amount. The higher the amount, the more chance of better rewards.
- Measure the participants choices and record them in order to correlate between the results gathered and the results of the research into gambling and gambling addiction.
- Create an in-game virtual horse racing simulator that allows the participants to bet some or all their current virtual coins on the outcome of the virtual horse race in order to win more virtual coins.
- Create a physical reward system for participants of the tests that are linked directly to the virtual loot boxes within the loot box opening simulator, with the better virtual rewards giving better physical rewards.
- Evaluate the results and compare them to the research into gambling and gambling addiction, considering the factors that define a person as having a gambling addiction.
- Gather the results and show them in an appropriate format within the research paper to best illustrate the findings of the study.
- Create a research paper that explains everything about the study, looks at and references relevant literature, compiles and displays the results in a format easy to understand for people of any knowledge level and summarises the study.

3. Rationale

3.1. Rationale and benefits

Loot Boxes within video games have been a hot topic at current with many negative views on them. This research will aim to show whether these negative views are justified. This research will benefit video game developers and publishers to help determine if there are any negative effects due to loot boxes. These negative effects are linked to gambling addiction and all the adverse aspects of this condition, these adverse aspects are:

- Financial trouble from excessive gambling.
- Relationship troubles with family and friends (this can be linked to the first aspect as financial trouble can be the cause of relationship issues).
- Mental health issues such as anxiety and depression.

It will also benefit the consumers of video games that have loot boxes in them for the same reasons.

3.2. Industry relevance

Loot boxes are one of the most highly debated features within the video games industry at present so research into them will help shine a light on the quite new and unknown topic.

The results of the research would affect video games companies and how they design the business model for their projects. Negative results could result in them choosing to remove the loot box model from their game whereas positive or even neutral results could show that with no negative effects that loot boxes are ok to include in their games.

Any video game developer or publisher that currently uses loot boxes or is looking to implement them in a future project could be approached to aid in this research and provide general support or possibly even be a client of the project.

3.1. Research relevance

The project would support current industry research into loot boxes. Currently there is a lot of talk about loot boxes being a form of gambling [1][2], with this study there should be a better understanding of whether loot boxes create the same mental issues as gambling can. It will also see if having loot boxes in video games can cause people that play them to form a gambling addiction at some point in their life.

4. Tasks and Methods

- Initial Research
 - Research what gambling is and the factors which defines a person as having a gambling addiction.
 - Look at existing loot box systems for inspiration when creating the simulation to emulate these systems as closely as possible.
 - Research current findings on connection between loot boxes and gambling if any exists.
- Agile Methodology Implementation
 - Create a Gantt chart to keep track of important deadlines and to help keep the project on track.
 - Create a Trello board for the project and break down the main task into smaller tasks for easier implementation.
 - Have regular meetings with supervisor to inform about progress and receive feedback, record the results in a logbook.
- Create a loot box opening simulator in the Unity Game Engine
 - Set up an initial project with blank scene and assets.
 - Create assets needed for the simulator, this includes 3D Models and textures for the actual loot boxes, create an environment for the simulator based off the research into current loot box systems, create animations for the opening of loot boxes, add sounds and music to create an immersive experience.
 - Add C# code into the project to give each loot box a random chance of dropping certain levels of rewards (these percentages will be based off the research into current loot box systems).
 - Add code to monitor participants choices during their time with the simulation.
- Create a horse racing simulator mini-game within the loot box simulator
 - Create a Unity scene to build the mini-game in.
 - Create basic models to represent the horses within the simulation.
 - Create a racetrack style background for the horses to race on.
 - Add C# code to make the horse racing results random while giving each 'horse' certain odds of winning to emulate real world gambling (these odds will be explained to participants if they are unaware of how gambling odds work).
- Create a physical reward system for participants
 - Decide on what to offer as physical rewards that will be won by the participants of the study.
 - Fine tune a system of how participants will earn physical rewards in order to gain the most accurate data related to gambling and gambling addiction.
 - Purchase rewards and have a supply of them always on hand whenever testing is due to occur.
- Collect data from the study
 - Use the data gathered from user choices within the simulator and collate them and put it into an easily understood format.
 - Compare data gathered from the study to research into gambling addiction and look for any patterns and show this in an easy to understand format.
- Write a research paper
 - Write about the background of the project and the reasons for undertaking this study.

- Mention other studies that have looked at this issue and those with similar topics.
- Add in data collected from the study and use it to write about what the results show and any connections to gambling addiction.

5. Resources

For this project there will be very few resources required. A PC that has the Unity game engine installed will be required to create the loot box opening simulator that would be used with volunteers to gather results.

There is a physical reward system proposed to be used for this project in order to give more accurate results. For this, physical rewards would need to be purchased. This would be in the form of chocolates or sweets in order to give participants something physical to 'gamble' with. These would be low cost items to make sure the project is financially viable.

6. Literature Search Methodology

When it comes to searching for literature to aid this study the words 'Loot Boxes' will widely be used to find relevant pieces about the loot box systems within video games.

There will also need to be plenty of research into both 'gambling' and 'gambling addiction'. The gambling research will investigate the definitions of what gambling is and how to identify something as gambling. The gambling addiction research will focus on what defines a person as begin addicted to gambling. It will look at what factors and symptoms to look out for when defining if actions taken can be derived as those of a person with gambling addiction or those with a higher chance of becoming a gambling addict.

A paper was published in 2019 which investigates virtual slot machines and whether the introduction of Virtual Reality has an impact on a person developing gambling addiction, this will be an initial key resource [3].

7. Risk Assessments

7.1. Health and Safety

There will be no Health and Safety risks involved with this project, users will be sat in a comfy chair and the time of their participation will be limited to thirty minutes at maximum.

7.2. Project Risks

The risk involved with preventing this project from being completed in time are mainly the availability of people to test on.

8. Ethics Review

For the Ethical review of this project there will be discussion on varying ethical issues and their relation to this project, if any exists.

Physical or Psychological harm, discomfort or stress

Participants of this study will not be exposed to any distressing or harmful content that could cause any psychological harm. There will also be no physical element, so the chance of any physical harm is non-existent.

Participant confidentiality / Consent

No personal details will be gathered of the participants of this study. This study does not focus on a specific age group or demographic so there will be no need to record this information within the study. All details gathered will only ever be seen by the person carrying out this study and will be disposed of once the study has concluded.

Written consent will be gathered for every participant in this study, this will be in the form of a check box list that will be read to the participant to ensure they are happy with what information they are providing at every stage of the study.

Vulnerable participants

Nobody under the age of 18 will be allowed to participate in this study and only people who are able to give their own consent to take part will be allowed. This is to help protect potential vulnerable participants.

Conflicts of Interest

This research will not see any financial or non-financial benefit for the researcher or for a relative/friend and research objectivity will not be compromised in any way.

Bring the University into disrepute

This research will not do anything to bring the University into disrepute, it does not concern groups that could be considered as extremists or terrorists.

9. Bibliography

1. Hern, A. and Davies, R. (2019). *Video game loot boxes should be classed as gambling, says Commons*. [online] the Guardian. Available at: <https://www.theguardian.com/games/2019/sep/12/video-game-loot-boxes-should-be-classed-as-gambling-says-commons> [Accessed 18 Oct. 2019].
2. Sky News. (2019). *Govt urged to crack down on 'gambling' loot boxes in games like FIFA*. [online] Available at: <https://news.sky.com/story/govt-urged-to-crackdown-on-gambling-loot-boxes-in-games-like-fifa-11806964> [Accessed 18 Oct. 2019].
3. Oberdörfer, S. (2019). *The Effects of Immersion on Harm-inducing Factors in Virtual Slot Machines - IEEE Conference Publication*. [online] Ieeexplore.ieee.org. Available at: <https://ieeexplore.ieee.org/document/8798021> [Accessed 18 Oct. 2019].