Investigating the responses to variations in balance in an unequal gameplay environment

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1. Project Background

1.1 Introduction

This research will explore how participants respond to variations in balance when put in a position of control. Using VR to create a disparate environment. Further, this paper will examine player's emotional responses while playing the game. This introduction will explain what balance is within games and the way it affects how players interact with one another is an interesting area of study. Balance, pacing and competitive gameplay is also discussed.

Balancing games has always been a challenge that has plagued games since they were invented. The term "imbalanced" is heard often in games, especially those of a competitive nature (Griesmer, 2010). Often, players will blame the imbalance of a game for their own failure. However, some games are imbalanced intentionally, the Street Fighter (Capcom, 2016) series intentionally features weaker characters that players play as a challenge, a handicap or a joke (Sirlin, 2009). Examples of imbalance providing fun generated the idea for the project.

Balancing is one of the most difficult and time-consuming phases of the game design process (Jaffe et al., 2012). In balancing, a playable game undergoes a tuning cycle of subtle adjustments and playtesting, in an effort to improve depth, pacing, fairness, randomness, and variety. Imbalanced games wouldn't need to go through such a tedious stage allowing developers to spend resources elsewhere, this justifies the rationale for the project.

Dungeons and Dragons (D&D) is a game where it allows the Dungeon Master (DM) to create and control the experiences of the other players. D&D has rules which essentially is the balance of the game created by the designers, however the DM can interpret and follow these rules however they like making them fairly redundant and more of a guide (Hitchens and Drachen, 2012). Pisan describes that the power of balance between players and Game Masters (GM) varies between games (Pisan, 2005), meaning that different GM's follow different rules essentially making a personalizable game experience for the players.

D&D is typically a table top game but it and other games like it, are often replicated in the digital format. Games such as Fable Legends (Lionhead, 2016), although cancelled, used the idea of a GM to create interesting gameplay. The concept of the GM taking the role of the "Villain", unlike in D&D the villains role is to compete against the other players, similar to that of an RTS by controlling monsters. The villain has currency that they could spend on monsters, this is how developers balanced the game so the players didn't become over whelmed (Hitchens and Drachen, 2012). Creating competitive gameplay would influence the role of GM allowing for more decisions to be made by the player (Pisan, 2005).

The Left 4 Dead (Valve, 2008) series uses an AI director that takes the role of the GM. This dictates the difficulty of the game based on how well the players are playing, which not only generates random events, but tries to create tension and fear by spawning in creatures to specific rule sets based on how the players are progressing, it especially penalizes players through more difficult challenges for not working together (Booth, 2011). Left 4 Dead's multiplayer was often referred to as being brilliant for its dynamic difficulty, replayability and dramatic game pacing which is thanks to the AI director (Ashton and Verbrugee, 2011).

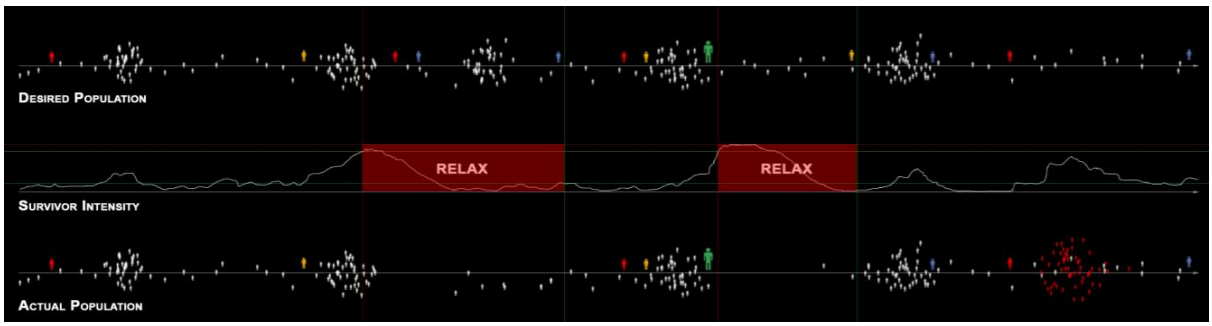


Fig 1: *Gameplay players expect vs gameplay Left 4 Dead's "AI director" Creates" (Booth, 2011).*

Having an AI instead of a Player to take the role of game master means rules will be enforced more. A human game master will have the option of which rules to enforce and when to create random events (Pisan, 2005). Weibel argues that Human players offer a greater experience of presence, flow, and enjoyment (Weibel et al., 2008).

1.2 Motivation

Balance and GM's are not something new to the industry, however allowing players the choice between a fun game experience and a bad one while having one player in a disparate environment such as one player being in virtual reality is. The justification for using Virtual Reality is that it would make the game asymmetric as well as removing eye contact and immersing the player like those who play D&D. An asymmetric game was chosen over a symmetric game as they allow for more options in terms of adding imbalance (Sirlin, 2009).

As the examples show making games unfair can be fun by making it challenging and the role of a GM makes the game personalized. Figure 1 shows the emotional response players feel from Valves "AI director" controlling the game, using software such as Affectiva (Affectiva, 2016) to measure player's emotional response (Booth, 2011). From this a similar graph can be drawn up to make for an interesting evaluation. Using Bartle's player types to allow for more comparison in the evaluation (Bartle, 1996).

2. Aims and Objectives

A disparate multiplayer game is to be created. This will allow one player to control game elements from the position on a Game Master while the other, using VR, will be playing the game. There will be a Cooperative and Competitive states allowing the players to work together and compete. This will allow for discussion on whether competiveness changes a player's response (Weibel et al., 2008). This section will introduce the Aim and Objectives of this project.

2.1 Aims

The aim of the project is to evaluate the user's response when being put in a Game Master position with a specifically created game that has a balanced and imbalanced version. This will look to see how players ultimately react and how they make the game experience for the other player.

2.2 Objectives

The above aim will be accomplished with the following objectives:

1. Develop a Virtual Reality capable game with enough content to effectively evaluate the project goal. This will be a two player game with one of those players being the Game Master and the other being in a disparate VR environment.

2. Recruit a decent sized participant pool, approximately 20 to make for a solid conclusion. Participants will take a Bartle's Player test so they can be categorised before testing to allow for more discussion in the evaluation.

3. Run a preliminary testing phase after the game development is done to assess if the game is suitable. Using both qualitative and quantitative data to assess this.

4. Run two more testing phases. The first will consist of half of the player group playing the balanced while the other half play the imbalanced, these will switch for the third iteration. This is too make sure that playing the previous version of the game doesn't influence player choices. Using Quantitative and Qualitative methods as well as Affectiva (Affectiva, 2016) to record participants emotional and behavioural results.

5. Evaluate and summarise the results of the project.

6. Perform critical evaluation of the project.

3. Academic Literature

This section will identify ten pieces of academic literature, giving a brief summary and explaining why it is directly relevant to the project. This section is a precursor to a comprehensive review of the academic literature which will form part of the project report.

1 Weibel, D., Wissmath, B., Habegger, S., Steiner, Y. and Groner, R. (2008). Playing online games against computer- vs. human-controlled opponents: Effects on presence, flow, and enjoyment. *Computers in Human Behavior*, 24(5), pp.2274-2291.

This paper examines whether playing online games against other users leads to different experiences in comparison with playing against computer-controlled opponents. This is relevant to this project as it helps justify why human controlled opponents offer a greater game experience. It concludes that players had a better experience vs player controlled and observed there were strong relations between presence, flow, and enjoyment (Weibel et al., 2008) This will allow for a comparison with Booth's AI Director (Booth, 2011).

2 Pisan, Y. (2005). The Game Master. pp.215 - 222.

This paper covers the role of a GM and how its functionality changes over platforms. Specifically covering a GM's functionality in multiplayer games, making it very relevant to this project as it will help distinguish the role of GM from table top to digital computer games. It concluded that giving players the control of the game world would create more reactive worlds then what is currently possible using pre-programmed static narratives or automated storytelling engines. This is particularly useful as it will also provide strong insight to the role of GM that will help with the development of the game.

3 Hitchens, M. and Drachen, A. (2012). The Many Faces of Role-Playing Games.

This paper provides a strong description of Dungeons and Dragons both digitally and non-digitally as well as identifying the game elements such as a Game master which is of great significance to this project. The paper also explains how research involving these games is hampered by lack of a widely accepted definition of game elements thus providing a strong definition that can be used when reading other academia.

4 Bernando, J., Mascarenhas, S. and Prada, R. (2008). Game Mechanics for Cooperative Games.

This paper covers the subject of Cooperative Video games and their design. The paper describes patterns and challenges found in current video games that feature cooperative play. This paper concluded that the data presented is of important value when attempting to design a cooperative game. This is incredibly useful and relevant to this project as it will have Cooperative elements implemented within it and gives great examples that can be used.

5 Ashton, M. and Verbrugge, C. (2011). Measuring cooperative gameplay pacing in World of Warcraft.

In all games, the quality of player experience is directly influenced by the level of challenge provided by the gameplay (Ashton and Verbrugee, 2011). The paper explores how important game pacing is in keeping players engaged. The paper also uses player's emotional response to aid in the research. Ashton concluded that appropriate game pacing is an important aspect for Game design in order to keep players interested. This is relevant to this project as it uses a similar method of collecting data as well as giving a strong knowledge of gameplay pacing.

6 Bartle, R. (1996). HEARTS, CLUBS, DIAMONDS, SPADES: PLAYERS WHO SUIT MUDS.

Bartle (1996) concluded that players can be split into four archetypes that effectively explain the different types of players but also how they interact with each other, which is very beneficial to this project (Bartle, R 1996). The term 'player types' refers to the different aspects of a game they find enjoyable and often do in games. This is an important aspect of the project as different people will be playing the game so having some way of separating them such as one of the four player types would make for an interesting evaluation.

7 Yee, N. (2006). Motivations for Play in Online Games. *Cyber Psychology & Behaviour*, 9(6), pp.772-775.

This paper provides an empirical model of player motivations in online games while expanding on Bartle's player types. The analysis revealed 10 motivation subcomponents that grouped into 3 overarching components (Achievement, Social, and Immersion). This study provides a solid foundation for quantitative research in online games by providing a model to understand player motivations which will be valuable in this project.

8 Jaffe, A., Miller, A., Anderson, E., Karlin, A. and Popvic, Z. (2012). Evaluating Competitive Game Balance with Restricted Play.

Balancing is one of the most difficult and time-consuming phases of the game design process. The paper sought to implement a feedback system that gave instant feedback on balance with in a game. It is relevant to this paper as it gave a very in depth look into balance and how it is implemented at a design level, giving several examples that can be used with in this project to add imbalance. The paper concluded that using such a feedback system would allow designers to rapidly evaluate and iterate on the balance of their game.

9 Ang, C. (2006). Rules, gameplay, and narratives in video games. *Simulation & Gaming*, 37(3), pp.306-325.

This explanatory study examines the different kinds of rules in video games, proving a useful insight that will be used with in this project, Pisan sates that GM's don't necessarily follow rules so this will provide a useful source (Pisan, 2005). The paper found that video games are seen as having two layers, an abstract layer and a narrative layer, which are linked by game rules. The paper concluded that gameplay and narratives should be complementary when studying video games, this understanding will be used with in this project.

10 Browne, E. and Cairns, P. (2013). A Grounded Investigation of Game Immersion.

This paper describes work done to define immersion based on the experiences of gamers. This is directly relevant to this project as VR is a being used in the game. It is important to discuss VR options based on what others have already done and this paper discusses research that has already been done on this topic. The paper concluded that immersion can be split into 3 levels engagement, engrossment and total immersion.

4. Project Plan

4.1 Written explanation

A Gantt chart as seen in appendices 6.1 has been created in order to visualise the time frame of the project. A Gantt chart "is used effectively in simple, short- duration type projects" (Wysoci, R.2012). However, as Wysocki points out Gantt charts are limited, as you cannot fully interpret the scale of a task just by looking at them. The life cycle of the project was visualized on the graph being split up into sections that contained milestones of when objectives will be completed. Buffer windows were implemented to prevent from any setbacks, these were put around areas such as Christmas where not much work will be done and after every milestone to let the project catch up if need be. Tasks where given very generous time frames, iterations where given extra time as only two participants can be done at once in a testing area that may not have much availability, see section 5. This makes the overall plan of the project relatively stress free.

Design and implementation of Game - 8 weeks:

After using the five sheet design framework to aid in the design of the game (Roberts et al., 2011), the game will be implemented. During this time participant's will be recruited and asked to take the Bartle's player type test in order to organize them (Bartle, R 1996). Consent forms will also be created in this time period.

All though the exact specifics of the content of the game are unknown at this stage a few essential parts of the game are known AI, Multiplayer, VR Mechanics/ Controls, Spawning and Menu. These have been split up during the implementation phase to allow for a better estimation of the time taken to complete this task. Although more time could be given to the design on the game it was decided to be completed before Christmas so testing could commence as quickly as possible. Realistically 8 weeks is more than enough time.

Iteration 1 – 5 weeks:

Leading up to Christmas the first iteration will begin, this will involve participant's playing the game and giving feedback and this will also be the time to test *Affectiva,* which will be used in the evaluation of the project. This is being done during this time period so small tasks that need this phase to be completed can be done over the Christmas break. In the Gantt chart this is shown in a lighter shade.

Iteration 2 and 3 – 9 weeks:

This will involve the participants playing the balanced and imbalanced versions of the game. This was split into two iterations to split the participant group in half allowing one half to play the reverse of the other. This insures a fair test and avoids biased opinions which would skew the results.

Iterations are planned to be early on because of the requirements of testing. A specific room within the university will be needed that may be in constant use and not always be available for the specific participants in this project. This was done to avoid the busiest times.

Document – Throughout project:

The document will be ongoing throughout the project.

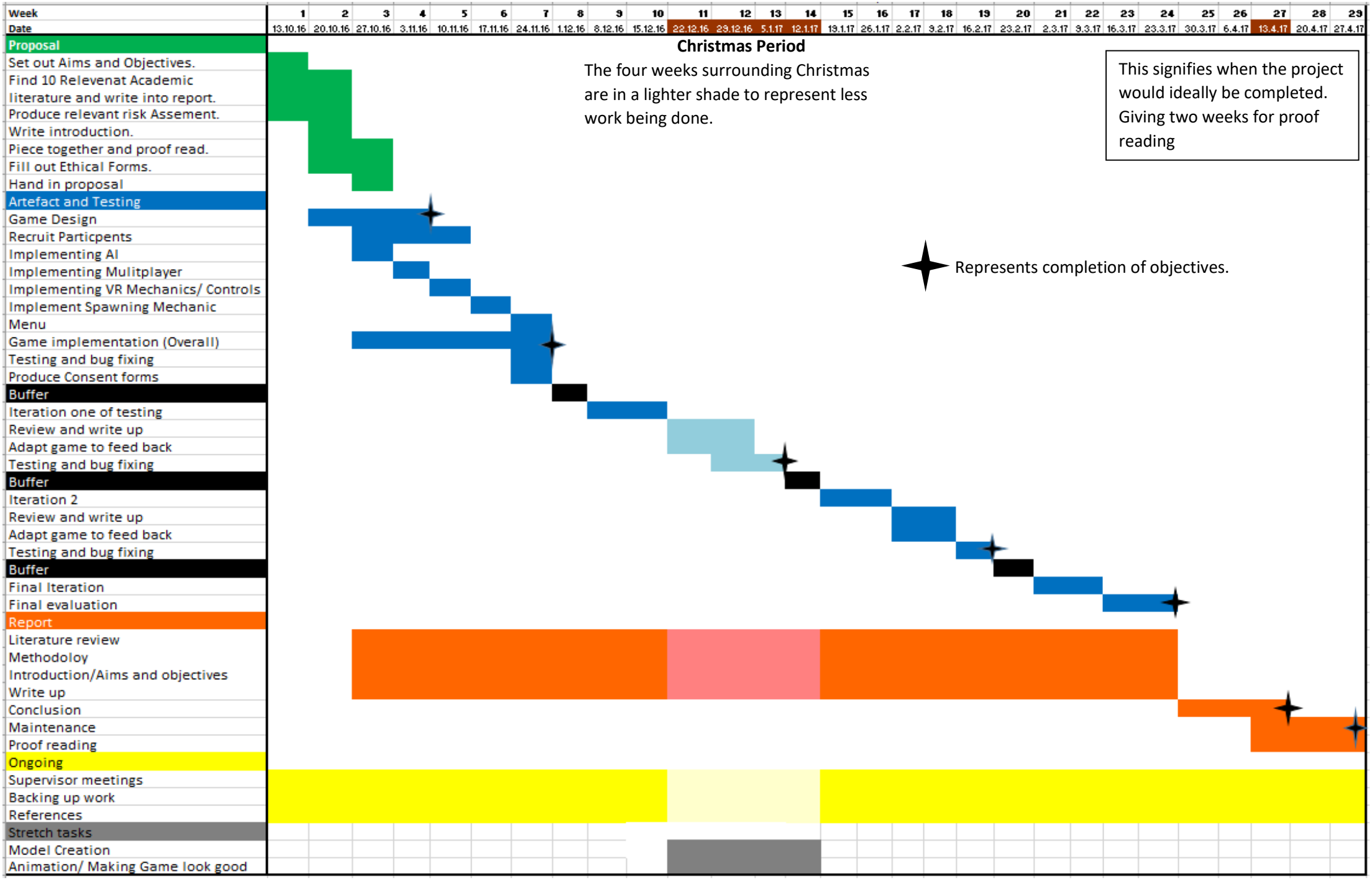
Stretch tasks: N/A

Stretch tasks where implemented for anything that wasn't vital for the project to succeed.

Methodology

There are several methodologies that would be suitable for this project, however, due to the nature of this project being a single researcher, a traditional waterfall methodology would not be optimal and would likely slow progress down due to its rigid structure and formalities. This is why the project will be conducted under an agile based methodology know as a scrum (Wang and Zeng, 2012).

4.2 Gantt Chart



5 Risk Assessment

A risk chart has been created in order to make sure the project finishes on time and to minimise the effect of things that could possibly go wrong. This details the potential risks specific to this project with a contingency plan on how to combat them. A method of multiplying the probability by the impact was used to quantify an overall risk. This allows for risks to be greater defined and categorised via colour coordination (Dumbrava and Iacob, 2013).

Risk ID	Risk	Probability 1-5	Impact 1-5	Cost	Contingency plan	Total Risk
R1	Lack of experience developing in VR.	2	3	This could cause delays to the project as a working game may not be done in time for testing.	Design the project with in the capabilities of the developer, while adding stretch tasks that can be implemented but won't over all affect the results of the project, such as Animation, Sounds and Texturing.	6
R2	Not retaining the same participants for the duration of the project.	2	4	Not only are the participants required to take a player test before testing but replacing a participant who has done one iteration of testing will skew data. Participants are required to test two iterations as to validate the study. .	Having multiple opportunities for groups to be run on different days will allow for an error buffer should a participant not be able to turn up. To make sure this doesn't make the project fall behind a buffer has been added in the Gantt chart. The participant pool will also be large enough just in case a few drop out that the project can continue without having data skewed.	8
R3	Virtual Reality sickness.	2	4	This occurs when exposure to a virtual environment causes symptoms that are similar to motion sickness. (Nichols and Patel, 2002). If a participant encounter this, they won't be able to continue in testing.	Have enough participants that if some participants need to stop enough data can be collected to allow the project to be finished. Allowing for plenty of breaks as suggested by Vive will negate the chances of VR sickness occurring (Vive.com, 2016). The game will be implemented in such a manner to make sure the framerates are at optimal levels.	8
R4	Access to a testing location suitable for VR.	2	5	A testing area that measures 1.5m x 2.0m, with access for lighthouses that need to be 1.8m high diagonally from each other. HTC also recommends an area with no mirrors or windows. A computer will also need to be positioned so that the Vive Headset, tethered	Good communication with university IT staff will ensure that the availability of a suitable test area is known. The IT staff given enough time could assist in any other issues related to the testing area if given enough time so it doesn't delay the project.	10

				by a 5m cable, can reach the play area (Vive.com, 2016)		
R5	VR equipment breaking.	1	4	An essentially part for running the Vive may break during the project, if this happened it could delay development or testing.	Keep in contact with IT Staff at the university, if such a situation does occur one can be loaned until the necessary parts are replaced.	4
R6	Hygiene Issues relating to the HMD (Head mounted display) of the HTC Vive.	2	4	Costello suggest that airborne pathogens and skin flora thrive in environments similar to those of HMDs and hand controller devices (Costello, 1997). Having several participants using the vive to test could cause hygienic issues.	Asking participants to brush hair back before using the vive as well as having antibacterial wipes to clean when a new participant is going to use. Participants will be informed that they can bring their own earphones and a pair of headphones will be on offer if they can't. There is also access to spare face cushions if the situation arises where one needs to be replaced.	8
R7	Hardware requirements needed to run the game smoothly during both development and testing.	1	4	A high end computer is required to test and develop for VR making it essential for the success of the project.	University lab computers are suitable, however there is access to a high end PC and Laptop that allows the project to continue when not at university.	4
R8	Heavy reliability on Assets.	1	4	This is especially true for the SteamVR asset that is paramount for the Vive to work with in unity. Without this the Vive simply won't run the game.	Having an older version of unity with a working SteamVr as well as having good use of versioning with GitHub so a previous version can be used.	4
R9	The terms of Service for use of Affectiva have limits on Academic Research use, it is not clear if this applies in this case, clarification has been sought, but not yet received.	3	1	Although Affectiva is a very useful piece of software it over all wont damage the project outcome, it will just mean a less technical method will be needed.	A different method of collecting emotional response would have to used. The company however is being contacted.	3

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7 Ethical Approval Forms

EA1

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Ethical Approval Form:

This form must be completed for each piece of research activity whether conducted by academic staff, research staff, graduate students or undergraduates. Applications by students must be endorsed by an academic member of staff acting as Principal Investigator/supervisor. The completed form must be sent to the designated Ethics Committee within the Faculty.

Please complete all sections. If a section is not applicable, write N/A.

1 Name of Applicant	Liam Mason
2 School or Department	School of Computer Science
3 Position in the University	Student
4 Role in relation to this research	Researcher
5 Name(s) of collaborators/co-workers and their relationship to the project (e.g. supervisor, assistant etc.)	*Andy Cowe- supervisor*
6 Brief statement of main Research Question or Project Title	Investigating how balance affects interactions between video game participants.
7 Ethical checklist	Does the research involve living human participants, or human tissue? **Yes** ☒ **No** ☐ *If you answered "yes", submit form EA2 for Ethical Approval.* Does the research involve living animals, or animal tissue? **Yes** ☐ **No** ☒ *If you answered "yes", submit form EA3 for Ethical Approval.* Does the research involve confidential data, or data not in the public domain? **Yes** ☐ **No** ☒ Does the project potentially put you or your collaborators at physical or psychological risk? **Yes** ☐ **No** ☒

	Could the topic or results of this research be seen as illegal, or attract legal action against the University from an outside agency? **Yes** ☐ **No** ☒ Could the topic or results of this research attract unwelcome media attention, or affect the reputation or standing of the University? **Yes** ☐ **No** ☒ Could the topic, results or conduct of this research be regarded as offensive, immoral or destructive by some reasonable people? **Yes** ☐ **No** ☒ Does this research need to be undertaken under a relevant professional code of conduct? **Yes** ☐ **No** ☒ Are there any potential conflicts of interest in conducting this research, including financial gain for the researchers, or for individuals or external organizations affiliated with the researchers? **Yes** ☐ **No** ☒ Are there any factors inhibiting the application of the University's ethical guidelines, including those on proper treatment of data, research design and publication of results? **Yes** ☐ **No** ☒ Does the research require the approval of any external body? **Yes** ☐ **No** ☒ ***If the answer to all questions above is "No", you may complete section 8 to certify that there are no ethical issues, submit this form to the relevant Ethics Committee, and proceed with the research immediately. You accept professional responsibility for this decision, and if unsure should instead submit to the Committee.*** ***If the answer to any of the above questions is "Yes", complete the rest of the form, submit to the relevant Ethics Committee, and await approval before proceeding with the research. Answering "Yes" does not necessarily imply that the research is problematic, only the Ethics Committee needs to consider the research to ensure that it can proceed, and that the research design conforms to best practice.***
8 Self certification of Ethical Review	*Having reviewed the ethical implications of this research, I certify that there are no issues requiring Ethical Approval. I certify that the research will be carried out in compliance with the University's ethical guidelines for library/desk/laboratory/studio-based research, with Health and Safety regulations, and with all other relevant University policies and*

procedures. If there are any changes to the research requiring ethical clearance, I shall apply for such clearance before continuing with the research.

Signed:

Principal Investigator ANDY COWE

Note. *This section must be endorsed by the member of academic staff responsible for the project. In the case of research by students, the supervising member of academic staff must sign. The signed form should then be submitted to the relevant Ethics Committee within the Faculty, and the research may proceed.*

9 Does the research comply with the University's key ethical principles for library/desk/lab/studio-based research ?

Yes ☒ **No** ☐

If "No", provide an ethical justification for your project and explain why you wish to continue with the research in breach of normal ethical principles:-

10 If applicable, please state the relevant professional code(s) under which the research is being conducted and confirm compliance

11 Does this research require the approval of an external body ?

Yes ☐ **No** ☒

If "Yes", please state which body: -

12 Has ethical approval already been obtained from that body ?	**Yes** ☐ **-Please append documentary evidence to this form.** **No** ☒ **If "No", please state why not:-** **N/A** **Please note that any such approvals must be obtained and documented before the project begins.**
13 If there are any other ethical issues, to which the attention of the approving committee should be drawn, please state them in this section, and explain how you have taken the issues into account, so that the research should be approved. Please consult the University's ethical guidelines for advice. **Please also include here, or attach separately, a brief description of the research, to allow the approving committee to reach judgement.**	N/A

APPLICANT SIGNATURE

I hereby request ethical approval for the research as described above.

I certify that I have read the University's ethical guidelines for library/desk/laboratory/studio-based research.

Liam Mason 25/10/2016

_____ _____

Applicant Signature **Date**

Liam Mason

_____

PRINT NAME

FOR COMPLETION BY THE DESIGNATED FACULTY AUTHORITY

Please select ONE of A, B, C or D below:

☐ **A. The Faculty gives ethical approval to this research.**

☐ **B. The Faculty gives conditional ethical approval to this research.**

10 Please state the condition (inc. date by which condition must be satisfied if applicable)	

☐ **C. The Faculty cannot give ethical approval to this research but refers the application to the University Research Ethics Committee for higher level consideration.**

11 Please state the reason	

☐ **D. The Faculty cannot give ethical approval to this research and recommends that the research should not proceed.**

12 Please state the reason, bearing in mind the University's ethical framework, including the primary concern for Academic Freedom.	

Signature of Designated Faculty Authority for Research Ethics

_____ _____

Signature **Date**

Key ethical guidelines for library/desk/laboratory/studio-based research

The University of Lincoln has drawn up the following key principles for researchers engaged in library/desk/laboratory/studio-based projects in order to promote high professional standards. They should be read alongside the University's Ethical Principles for Conducting Research with Humans and Other Animals, and operate as part of the University's Ethical Framework.

- *Non-falsification of data:* Researchers have an ethical obligation to refrain from tampering with data. Thus questionnaire responses, experimental observations and data analyses should not be fabricated, altered nor discarded. In addition, researchers have a responsibility to exercise reasonable care in processing data to ensure no errors affect the results.
- *Ethics of reporting research:* Researchers are obliged to give full and proper attribution of ideas: presenting the words, data or ideas of another person as your own without properly citing them amounts to plagiarism. This is not only misconduct but can also be an infringement of copyright, amounting to theft of intellectual property.
- *Ethics and research design:* Researchers should be open to a range of methods: failure to consider and evaluate alternative methods and tools for the collection of data may be regarded as too overtly biased. All appropriate steps should be taken to ensure that no samples are obtained from unethical sources e.g. illegal databases; unregistered suppliers of samples from humans or other animals.
- *Authorship credit:* Only those researchers who are significant contributors to a research project should be given authorship credit. A "significant contributor" might be described as a person playing a major role in conceptualising, analysing or writing the final document. Ideally, all those involved in the research project should decide upon the order of authorship. Usually, the first author is the one who has made the biggest contribution.
- *Conflict of interest:* Researchers should be aware of the potential influence of personal or commercial interests on their work and take all practical measures to ensure that information is presented without distortion.
- *The principle of beneficence:* Researchers are required to protect individuals by seeking to maximise anticipated benefits and minimise possible harms. It is therefore necessary to examine carefully the design of the study and its risks and benefits including, in some cases, identifying alternative ways of obtaining the benefits sought from the research. Research risks must always be justified by the expected benefits of research.
- *Professional codes:* Researchers should undertake research legally and in accordance with any relevant professional codes of conduct.
- *Personal information:* Researchers should anonymise information which relates to individuals when they have not obtained informed consent, unless there is a clear justification to the contrary. They should also be aware of the impact of wider public dissemination of their work and the impact this might have on any individual or group of individuals. If it is anticipated that it might cause distress, it is essential to demonstrate that the benefits outweigh this risk.

EA2

Ethical Approval Form:

Please word-process this form, handwritten

UNIVERSITY OF LINCOLN

This form must be completed for each piece of research activity whether conducted by academic staff, research staff, graduate students or undergraduates. The completed form must be approved by the designated authority within the Faculty.

Please complete all sections. If a section is not applicable, write N/A.

1 Name of Applicant	Liam Mason
	Department: Faculty: Computer Science
2 Position in the University	Student MComp
3 Role in relation to this research	Researcher
4 Brief statement of main Research Question	Investigating how balance affects interactions between video game participants,
5 Brief Description of Project	To evaluate the user's response when being put in a Game Master position with a specifically created game that has a balanced and imbalanced version. The Game will be VR.
	Approximate Start Date: 27/08/16 Approximate End Date: 24/04/17

6 Name of Principal Investigator or Supervisor	Andy Cowe	
	Email address: acowe@lincoln.ac.uk	Telephone: 01522 83 7318
7 Names of other researchers or student investigators involved	**None.**	
8 Location(s) at which project is to be carried out	University of Lincoln, MHT Building	

9 Statement of the ethical issues involved and how they are to be addressed –including a risk assessment of the project based on the vulnerability of participants, the extent to which it is likely to be harmful and whether there will be significant discomfort. **(This will normally cover such issues as whether the risks/adverse effects associated with the project have been dealt with and whether the benefits of research outweigh the risks)**	The evaluation that will be carried out on the project will not be controversial or pose any immediate ethical threat. However, below are a list of issues that may arise and the steps that I have taken to minimise any problems. 1) Informed Consent Participants should at all times be made aware of the study they are entering into and giver their consent to be involved in the study. This extends to, but is not limited to: the purpose of the evaluation, the content of the evaluation and the outcome of the evaluation. The importance of each of the above elements shall be reiterated at every stage of the evaluation, from start to finish allowing any person to choose whether they wish to participate. Formal consent shall be obtained through the completion of a consent form, sent to the participants along with a letter detailing the evaluation which will be taking place. 2) Privacy & Confidentiality Protecting the privacy of the participants is important to the study, as it allows the participants to speak freely and openly about the subject without feeling that their comments will be attributed to them. To ensure that they feel their privacy is being maintained, I shall over the course of my correspondence with the participants and focus group highlight that this study is confidential and anything they do say will be taken on that basis. This will be particularly important during the introduction and conclusion of the focus group itself. It is also important that any confidential information about the participant e.g. their age, address and telephone shall be held only by the person carrying out the evaluation and destroyed once the research data has been collected and concluded. 3) The Right to Withdraw During the evaluation participants may disclose information that they may otherwise not, in different circumstances. Therefore, they should be given the option to withdraw any comments or entirely from the study at any time – this shall be highlighted repeatedly throughout the study. 4) Risk & Adverse Effects I do not expect this study to create any risk or adverse effects to the researcher and any participants that agree to take part.

Ethical Approval From Other Bodies

10 Does this research require the approval of an external body ?	**Yes** ☐ **No** ☒

	If "Yes", please state which body:-
11 Has ethical approval already been obtained from that body ?	**Yes** ☐ **Please append documentary evidence to this form.** **No** ☐ **If "No", please state why not:-** **Please note that any such approvals must be obtained and documented before the project begins.**

APPLICANT SIGNATURE

I hereby request ethical approval for the research as described above.

I certify that I have read the University's ETHICAL PRINCIPLES FOR CONDUCTING RESEARCH WITH HUMANS AND OTHER ANIMALS.

Liam Mason 11/10/16

_____ _____

Applicant Signature **Date**

LIAM MASON

_____

PRINT NAME

FOR COMPLETION BY THE CHAIR OF THE FACULTY RESEARCH COMMITTEE

Please select ONE of A, B, C or D below:

☐ **A. The Faculty Research Committee gives ethical approval to this research.**

☐ **B. The Faculty Research Committee gives conditional ethical approval to this research.**

12 Please state the condition (inc. date by which condition must be satisfied if applicable)	

☐ **C. The Faculty Research Committee cannot give ethical approval to this research but refers the application**

to the University Research Ethics Committee for higher level consideration.

13 Please state the reason	

☐ **D. The Faculty Research Committee cannot give ethical approval to this research and recommends**

that the research should <u>not</u> proceed.

14 Please state the reason	

Signature of Chair of Faculty Research Committee (or nominee)

_____ _____

Signed **Date**