

INTERIM VIVA

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Agenda

- **Project overview**
- **Project Work (October-December)**
- **Planned work (January-Hand In)**
- **Conclusion**

PROJECT OVERVIEW

Research question and project title

Project Title: The creation and implementation of visual filters in Virtual Reality Games and how it affects a player's immersion.

Research Question: How is the immersion of a player's VR experience affected by varied visual filters that distort perspective?

Planned deliverables

Deliverables at end of project:

- **Creation of a VR-Game (approx. 30 Minutes long)**
- **Publish a separate collection of visual filters to use in other projects**
- **Research Thesis**

PROJECT WORK

(OCTOBER-DECEMBER)

Research work

Papers linked to VR and Immersion in digital media as well as psychological aspects:		
No.	Link:	Summary
1	https://doi.org/10.1145/3341215.3355736	Comparing Player Experience in Video Games Played in Virtual Reality or on Desktop Displays
2	https://doi.org/10.1177/1046878119831420	Gaming in Virtual Reality: What Changes in Terms of Usability, Emotional Response and Sense of Presence Compared to Non-Immersive Video Games?
3	https://doi.org/10.1111/bjso.12471	Video games, frustration, violence, and virtual reality: Two studies
4	https://dl.acm.org/doi/pdf/10.1145/258734.258744	Quantifying Immersion in Virtual Reality
5	https://doi.org/10.1016/j.ibusres.2018.10.052	With or without you? Interaction and immersion in a virtual reality experience
6	https://doi.org/10.1016/j.ecns.2019.09.006	Virtual Reality Experience: Immersion, Sense of Presence, and Cybersickness
7	https://ieeexplore.ieee.org/abstract/document/4287241	Virtual Reality: How Much Immersion Is Enough?
8	https://journals.sagepub.com/doi/abs/10.1177/1541531213602001	Gaming on the Rift: How Virtual Reality Affects Game User Satisfaction
< > WebsiteLinks VideoLinks AcademicPapers InspiringMedia Unsorted +		

Articles that are used for research and creation of deliverables are sorted into these categories:

- Website Links
- Video Links
- Academic Papers
- Literature
- Inspiring Media
- Unsorted

Research work: Academic Papers

A couple quotes for a research paper surrounding the use of Virtual Reality in Gaming:

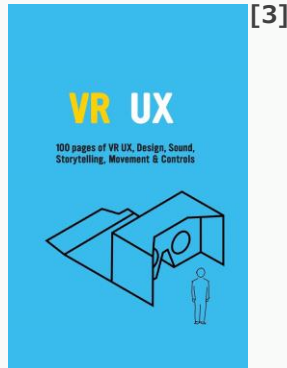
- "the results have shown that playing in virtual reality is able to elicit more intense positive emotions compared to a video game experienced on a desktop display" [1]
- "the analyses of the subscales of the GEQ sensory and imaginative immersion as well as flow showed statistically higher values after the video game experience in virtual reality compared to that on the desktop display" [1]

Research work: Academic Papers

A quote from a research paper surrounding the effects of 'horror'-related experiences in relation to Gestalt Psychology (Immersion):

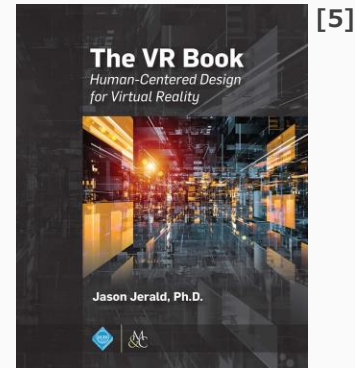
- "paranormal-related activities and experiences help to redefine 'immersive' in terms of psychological absorption, or the "disposition for having episodes of 'total' attention that fully engage one's representational (i.e., perceptual, enactive, imaginative, and ideational) resources" [2]

Research work



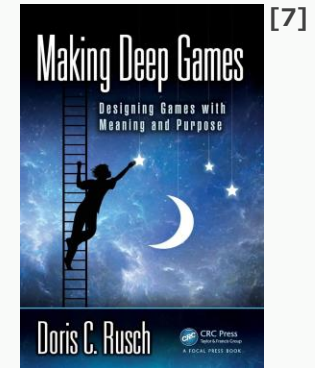
Points outlined to strategize a virtual reality user experience [4]:

- 1) Write a short narrative
- 2) Form persona and motives
- 3) Research and pick your tools
- 4) Choose an interaction model
- 5) Sketch and storyboard
- 6) Apply sound, Cues, Inputs and Add-ons



Summary of literature:

“Whereas limitations of technology can cause bad VR execution, problems are oftentimes caused by a lack of understanding human perception, interaction, design principles, and real users” [6]



Summary of literature:

“how to make games that tackle the whole bandwidth of the human experience; games that teach us something about ourselves, enable thought-provoking, emotionally rich experiences and promote personal and social change” [8]

Research work

Section 1 of 3

Gathering opinions on gaming and virtual reality.

B *I* U ↗ ~~X~~

This is a quick form gathering opinions on Video Game interest as well as interest in Virtual Reality for a final year major project.

As a background to this survey, I am Gillean Yves Jofre, a BA Games Design Year 3 Student currently working on a proposed Virtual Reality Game that will be testing on the use of different visual effects and filters to create a more immersive and unique gaming experience.

What is your student number? *

Short-answer text

What course and year are you currently studying in? *

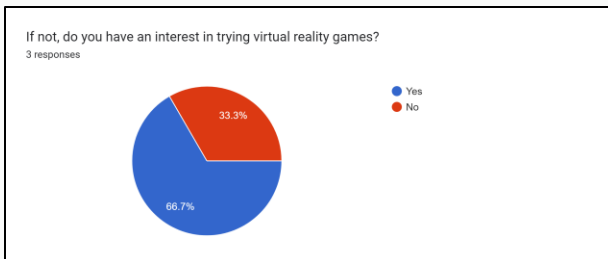
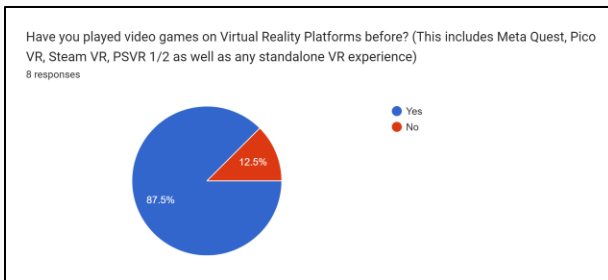
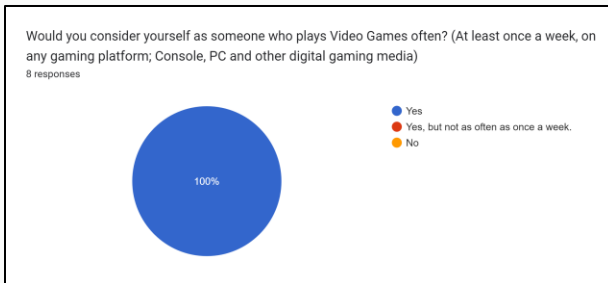
Short-answer text

A questionnaire was handed out to Year 1 and 2 BA Games Design students to fill out.

The questionnaire aimed to gather the following information for participants:

- **General interest in Virtual-Reality Gaming as a whole**
- **What genres of video games are participants interested in?**
- **What do participants find to be good points as well as bad points of Virtual-Reality Gaming?**
- **Interest in participating in future test for my project.**

Research work



These are charts gathered from questions of the questionnaire:

Other open-ended questions were also used in the questionnaire.

Some of the common points gathered from the questionnaire are:

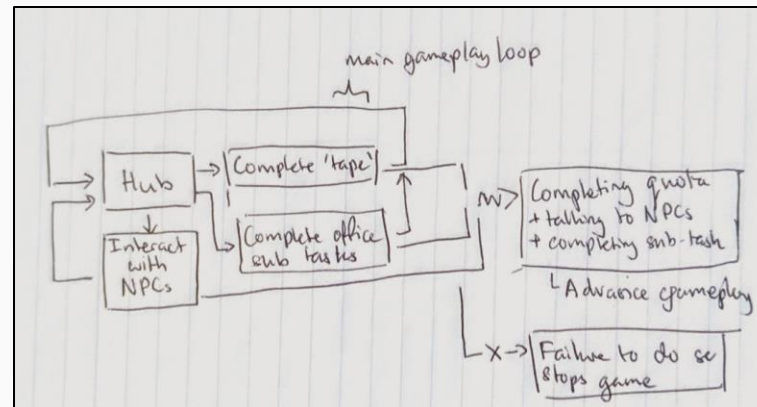
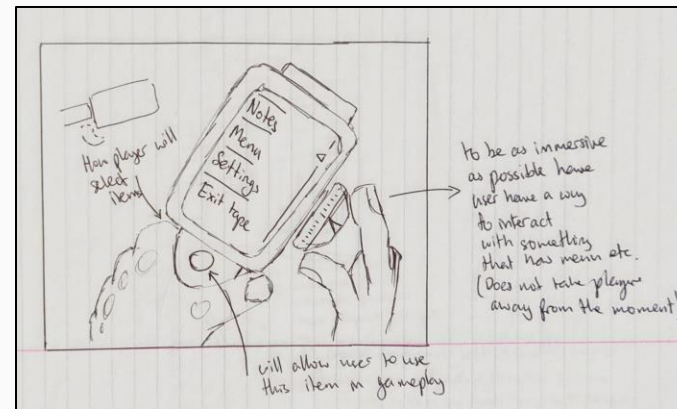
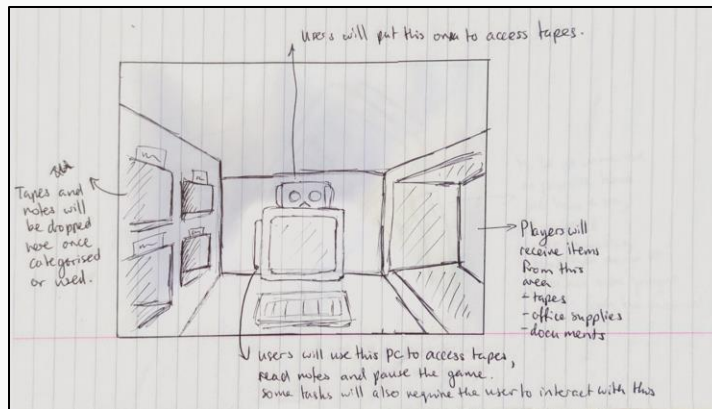
- Immersion and interactivity are the main attractors amongst the participants, and they would like more of it in VR experiences (50%)
- Horror and horror related sub genres are also wanted in a VR experience (33%)

VR Game Ideation

TITLE Immersion not found			MAIN AIM Complete all of the tapes to be presented with a narrative ending.	
ID An office worker must work their way through a series of Virtual Realities while uncovering why a series of strange events are happening.			MAIN MECH TO ACHIEVE AIM Complete a series of puzzles and events while managing statistic.	
THEME Mystery, surreal		GENRE Horror, Immersive Sim.		
KEY PILLARS				
Immersed in surreal environments.		Sensation of paranoia		Curious
VISUAL STYLE Depending on the visual filter it can be: Retro, Surreal, Hyper-Pop or Realistic.				
MUSIC & SOUND STYLE Sound should match environment's feeling and look, ranging from atmospheric to surreal and mysterious.				
STORY An office worker is hired at a firm which collects and categorises the dreams of clients. These are stored in tapes, which require the user to use a massive headset to view them and experience them as their own dream. This office worker soon realises that the tapes he receives are getting increasingly corrupted and events from the tapes start to bleed over into his office space; affect him and his co-workers alike.				
AUDIENCE 18 to 35 years old, interested in horror and retro video games			PLATFORM PC SteamVR, Meta Quest	

One pager taken from
Gossian Blurs [9]

VR Game Ideation



Photos of sketched out ideas for

- Main room (hub) and its functionality
- How the user will interact with menus while being immersed
- An example of a puzzle
- The main gameplay loop

PLANNED WORK

(JANUARY – HAND IN)

Planned Research Work

Research (Part 1)

- Continue to distribute first questionnaire to gather more data
- Begin outlining data into either Thesis and or Development.
- Continue researching into Virtual Reality, Immersion in gaming and the psychology of immersion.

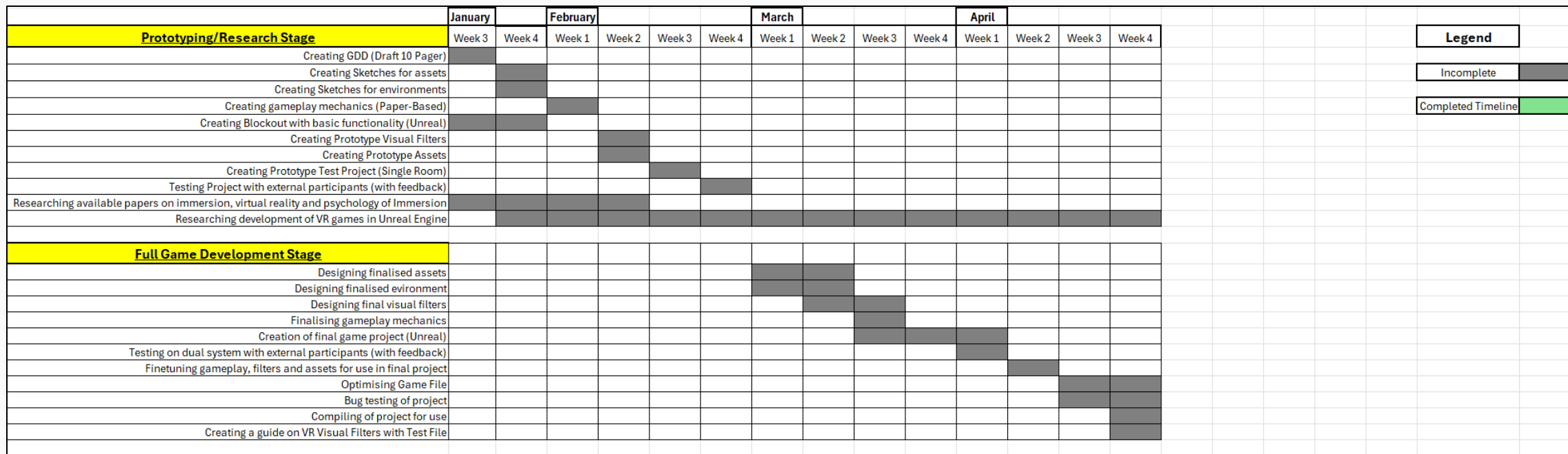
Research (Part 2)

- Create testable prototype with a handful of features and visual filters
- Test prototype with participants to gather data
- Research Unreal Engine Virtual Reality Development

Research (Part 3)

- Categorise previously gather data
- Create final version of game and test with participants
- Categorise data against and for research question.

Gantt Chart



CONCLUSION

Conclusion

Discussed today:

- **The main idea of the project and proposed VR Game**
- **The questionnaire and research in immersion and Virtual Reality Games that has been conducted**
- **The one pager for the proposed VR Game as well as early concept sketches**
- **Future plans with a Gantt Chart outlining the timeframe for each part of the project in the coming months until completion.**

THANK YOU FOR
YOUR TIME
ANY QUESTIONS?

References

[1]

F. Pallavicini and A. Pepe, "Comparing Player Experience in Video Games Played in Virtual Reality or on Desktop Displays," *Extended Abstracts of the Annual Symposium on Computer-Human Interaction in Play Companion Extended Abstracts - CHI PLAY '19 Extended Abstracts*, pp. 202–203, 2019, doi: <https://doi.org/10.1145/3341215.3355736>. Available: <https://dl.acm.org/doi/10.1145/3341215.3355736>. [Accessed: Dec. 05, 2024]

[2]

J. Houran, B. Laythe, R. Lange, M. Hanks, and R. Ironside, "IMMERSIVE STUDY OF GESTALT VARIABLES IN UNCANNY GEOGRAPHIES," *Journal of the Society for Psychical Research*, vol. 87, no. 2, pp. 65–100, Apr. 2023, Available: https://www.researchgate.net/publication/373110983_IMMERSIVE_STUDY_OF_GESTALT_VARIABLES_IN UNCANNY GEOGRAPHIES. [Accessed: Dec. 07, 2024]

[3]

C. Fictum, *VR UX : learn vr ux, storytelling and design*. 2016.

[4]

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[5]

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[6]

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[7]

D. C. Rusch, *Making deep games : designing games with meaning and purpose*. Boca Raton, FL: Crc Press, Taylor & Francis Group, An Informa Business, 2017.

[8]

“Making Deep Games: Designing Games with Meaning and Purpose: Amazon.co.uk: Rusch, Doris C.: 9781138812130: Books,” *Amazon.co.uk*, 2025. Available: <https://www.amazon.co.uk/Making-Deep-Games-Designing-Meaning/dp/1138812137>. [Accessed: Dec. 16, 2024]

[9]

“One-Page Game Design Document Template | Free Download | Gossian Blurs,” *www.gossianblurs.com*. Available: <https://www.gossianblurs.com/gdd-1-page-template-download>. [Accessed: Jan. 03, 2025]