

Game Design and Critical Analysis: M6X02045

By

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Creative Computer Games Design

Word Count: 5437

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Introduction

In this analysis I plan on using user feedback and playtesting sessions to improve my work and ending product. The topic I will be covering is Level Design, since I am the Lead Game Designer for my group (Orbit Studios) and one of my jobs is to oversee the level design for our game. I plan on working by developing a level blockout and playtesting it to gain feedback and acting on the feedback to make a better experience for the player.

Research

Before I start, I will research data collection and the field that I will be applying to my research, to make sure that I get the answers that I want out of my research. In this section I will talk about the steps I need to do before I have my first testing session. I am hoping that my research will help me make a better level for the game and that the users will have a better experience.

Format

My first task is to research what format I wanted to use for the data collection. My first thought was to use a questionnaire since it is the easiest option. But I wanted to make sure that questionnaires was the best route to go for this test by looking at the other formats for getting usable data for the game.

I used Oppenheim's book "*Questionnaire Design, Interviewing and Attitude Measurement*" (pg.67 2001) and "*Surveys in Game User Research*" (Florian, 2018) as a reference for the different types of data gathering to make sure that this was the best format to use.

In my research there were some alternatives to the questionnaire/ survey approach. Since there are multiple ways to collect data I wanted to make sure that the questionnaire would be the best form of data collection for my research.

Focus Groups

Having a group of people test the game and then have a face to face interview with the entire group that played.

Pros:

- Quicker than one on one.
- Lots of open ended responses.

Cons:

- Only one VR machine (take longer for everyone to play the game per session).
- Difficult to get an accurate close ended response.

Direct Observation

This is a more passive approach to collecting data, it requires the tester to observe the scenario while taking notes and screen capture of the user playing the game.

Pros:

- Allows for a much better analysis of the game being played.
- Observing multiple people will allow for a better understanding of common issues and problems the users are facing.

Cons:

- Only observe one person at a time.
- Notes may not have the exact points you want out of the test.

One on one Interview

Different from the focus group. Instead of a group interview, it would be a one on one with everyone who plays the game.

Pros:

- Can get better responses to the specific questions you ask.
- Responses are more personalized.

Cons:

- Can only do one person at a time (Time consuming).
- Not everyone is comfortable with one on one interviews and can skew results.

Questionnaire

One of the most common forms of data collection. Where a participant is given a form (digital/ written) with questions that are generally answered anonymously.

Pros:

- Anonymous answers are more honest and actionable.
- Can set up lots of questionnaires for larger groups.

Cons:

- Anonymous answers can also mean non useable data (Unanswered questions, Difference in understanding)
- It is also difficult to convey emotions and feelings.

After some research on the different types of data collection I believe questionnaires best fit level design and for the types of answers that I want out of my research. The biggest reason was that it can be set up on multiple computers for larger groups of people and can be conducted without me being at the test session if needed. I figured having a more efficient way of collecting data will help me get enough data to better my level design.

BSP Blockouts

In researching Level design I came across a process known as BSP Blockouts in the Unreal Engine. This method would allow the Level Designer to test out a design of the level instead of just having the top down 2D version of the level. The whitebox was meant to be created quite quickly so that it can be tested once a final version of the design was decided upon by the team.

Reading an article (World of Level Design, 2019) it helped convince me that this method had its benefits to the design of a level. Since it can be iterated upon if something is wrong, you can establish the correct scale of your level and more importantly test your ideas quickly.

Using this method I created my first level separate from the VR game and used a first person shooter template to illustrate the level. Which I can then put a questionnaire on the same PC about the level design.

The reasoning for having the level separate is so that I could have more respondents to my questionnaire since it can be setup on virtually any computer. For instance, if it were put into a VR platform we would be limited to the only functioning VR computer (which was also being used by another team member for testing). This method can be scaled for open days and holding larger amounts of test groups in the future if needed.

Platform

There were multiple ways to do the questionnaire, like written and digital formats. But the way I ended up choosing was through Microsoft Teams. This was discussed as a group for Orbit Studios since we decided to use Teams at the start of the semester as a place to share and organise our cloud storage as a team. It was only afterwards that we realised that it also had a way to utilise questionnaires through “forms”.

The platform also has statistics and ways to visually represent our data. We felt this was best so that we can compare and analyse our data better, which should make implementation faster.

Questionnaire Design

Now that I have the format and platform for the type of data collection I will use, I now need to design the questionnaire in a way so that I get the right answers from the users.

The book I found most useful is the *"Survey in Games User Research"* (Bruhlmann. F, 2018) which talks about questionnaires in game user research. Topics like what types of questions you should ask and conducting the survey itself. I will be using this for when I create my questionnaire to help me get the best out of my questionnaire.

I also used the book by Oppenheim *"Questionnaire Design, Interviewing and Attitude Measurement"* (2001) Which covers good use of questionnaire Design.

One article used (Doane, 2015) talked about how to design a survey on Gamasutra. It uses examples of the types of close ended questions, how to use them and the data you can get from them.

Another resource used was the "Tip Sheet on Question Wording" (Harrison, 2007) which talks about general tips on making a survey/ questionnaire. This will help when I review my questions to make sure they are what I want.

One other resource I found was a playtesting questionnaire done by the "Game Programming Lab" in 2010 (Siegrist, 2010). I used this for the format and style for the questionnaire. I could also use this for reference when making my own questions.

Methodology

Method of Feedback

The method of gaining user feedback I will be using is through a questionnaire or survey. This method should be the most efficient to get as much user feedback without me needing to oversee every user response, which I believe would take too much time. The process is also anonymous and should give me more honest feedback that I can act on.

Since if I were to use an interview process where I would need to gain feedback through asking the users directly, I think the process would put more pressure on the user to give me less honest feedback. I also believe the process would take too much time.

Format

In the “*Surveys in Game User Research*” (Florian, 2018) it is stated that the four basic modes that survey can be conducted is by written, phone, in person or online. I believe for my playtesting session the best way I can conduct a survey is through an online format. This way I can set up multiple computers for the level blockout and also setup the online survey on the same machine. I could even set up the survey on my phone if needed. Which should be the most efficient method to gain feedback.

Questionnaire Design

This next section will be designing my questions around my level design and getting feedback that can be used to improve upon my blockout. To make sure my questionnaire gets the right feedback I will need to make sure that the questions themselves are useful.

The paper on game survey questions (Florian, 2018) says that questions can be used to assess:

- Player attitudes and experiences
- Motives
- Player characteristics
- Comparisons

Types of Questions

As Oppenheim states in his book on question types (p.112) when it comes to surveys you have two types of questions, open ended and closed ended.

Close ended questions are questions that have predetermined answers for the user (Can be a yes or no question). The answers are typically used to get quantitative data from the participants.

Open Ended Questions are questions that are phrased as a statement to get a full response from the end user and are objective. The answers are explanations from the user and are used when you do not know enough about the topic/ subject.

My questionnaire will be based off of getting as many open ended questions as possible to get feedback describing the level. But I will also be using closed ended questions to get back some measurable data on the quality of the level. This way I can present this data visually using graphs and charts.

My Aims

A huge part of this questionnaire is to get feedback and data on the topics I want and write questions to try to get these responses. The way to do this is to know your aims and write questions around these. These aims represent what I want out of my questionnaire and I will base my questions on these aims.

1- Data on usability

So I want to use some open and close ended questions to get some data on how the level felt playing. I will use open ended questions to get a more opinionated answer from the testers and use that if there are any strong opinions or common issues they have.

The Close ended questions will be used so I can get some measurable data (Maybe a rating or likert scale) so I can see any popular and unpopular opinions on the level. I can also use this data more easily since I can see it in graphs and charts.

2- Data on Intuitiveness

I would like some data on how the users get around the level without any explicit instructions. I am hoping that some of the open ended questions I use will give the users a place to talk about the intuitiveness of the level.

3- Data on the levels length

I will probably use a likert scale to measure how the users felt on the length of the level. Using a likert scale I can track the data I am getting and also apply it to graphs and charts. This will also help me track any improvements I want to make for the level in the future.

Questionnaire

Now with the research I have done and established the aims for this playtest I will try to write questions to try and satisfy the amount of feedback I need. For the full questionnaire please look at Appendix A.

Questionnaire - Introduction

Level_Block-Play_Testing

Welcome to our play test! This questionnaire is for our level blockout. If you could answer as honestly as possible that would be great!

Since we want to fix any and all problems or concerns, having honest feedback will help us with that. Which should make for a better game.

I chose a simple introduction so our players would jump straight into answering questions. By not having too much to read and not having a wall of text so players can have more fun playing the game instead of typing up some boring questionnaire.

I will probably ask my team if we want to offer incentives to playtest our game, like a drink and some snacks. This way a player can better justify playtesting with us and also give them a reason to come back.

Questionnaire - Q1

1. Prison Section - (Where you start) How would you rate the layout of the cell block?

(Rating out of 5)

I start off the questionnaire with a simple close ended question, A type of question that is shown in Oppenheim's book (pg. 115, 2001) that is a rating out of 5. Which means it will be easier to process. Which I will follow up with an open ended question for any further details. I also put in the name of the section so it is not confusing.

Questionnaire - Q2

2. Prison Section - Is there any feedback on the layout and "feel" of the prison section? (Is it confusing?, Did you know where you were going?, Layout felt good/bad)
-

This is the open ended question which follows the first. Here I want feedback on the "feel" of the first part of the level. I found it hard to explain what "feel" meant so I left in some prompts to get more open ended feedback. I only want to know if this art of the level is aesthetically pleasing and pushed the player in the right direction so they are not lost. This should give me qualitative data that I can use to change any parts of the level that is specifically wrong.

Questionnaire - Q3

3. Guard Charging Station - How did you feel moving through this section of the level? (Good/bad?)
-

I then want to get some info on the next section the "Guard Charging Station". Here I wanted the player to feel slightly claustrophobic to up the tension that the scene will provide. Since the lighting will change here in the future to something more dark so when the player needs to sneak past the enemies the player should feel uncomfortable.

Questionnaire - Q4

4. How long did you feel the level was?

Too Long

Long

Was not a Problem

Short

Too Short

Here I use a Likert Scale to ask the player how long the level was. Since the level itself is not entirely complete yet, I want to know if it is too long already and if it needs changing. This question is also close ended so I can have a graph showing how the players feel afterwards. This should also give me quantitative data on the subject that I can use.

Questionnaire - Q5

5. How did the brightness of the level feel?

Too Dark

Dark

Just Right

Bright

Too Bright

Again using another Likert scale to measure how the users felt about the brightness of the level. This was a question I used when I saw the "Rum Runners questionnaire" (Siegrist, 2010). It was something I did not even consider when planning my level, so ifigured I would add something in now.

Questionnaire - Q6

6. How did the structure of the Level feel? (was it natural, did any part of the level feel off?)
-

In this part of my questionnaire I want some feedback on how the structure of the level felt. Again it was something that was hard to explain so I added in more prompts to make it easier to answer for the user. This is another open ended question so it was something that I only want an opinion about the level.

Questionnaire - Q7

7. Lastly, is there any feedback you want to add or anything we didn't mention? - Optional
-

My last question is very open ended, where the user can add in more feedback about the game. Anything I did not consider or any things they liked about the level thus far. I like this open ended question to finish off the questionnaire since the player can have some free roam to give me any kind of feedback that they felt needed answering here.

I made this questionnaire with not as many questions so that the player does not feel overwhelmed. I also believed it was well rounded and informed enough so I get the data that I want from my test.

Game Tests

Level 1 - Current State

At the moment I only have the first half of the level done, I have not included the player choice sections, where the player can either go into the server room or the office block. I also haven't included the end boss room.

This may be a problem for the overall playtest but I will test what I have so far. The prison cell, the guard charging station and android prison cell areas. The level is quite linear, but I want the game to still feel like there is more the player can explore than there actually is. Hopefully, by implementing the level design theories I have been researching on intuitiveness will help the player along the game.

For screenshots of the first level please look at Appendix B.

Game Test 1 (Week 6)

To start the session the Orbit Studios team used doughnuts and cans of drink as an incentive for our testers to potentially come back and as a reward for helping us play test. We are hoping that having a consistent stream of play testers will help the game in the future.

I stated my playtest by setting up next to Nathan to have the first game experience in VR and then playing the first person shooter version of the level concept that I had. This way we can filter two people playing the game at the same time, this setup should help on the efficiency of time if we have too many play testers.

Our first session had 7 playtesters. This was mostly comprised of the second years who were next door and some of the class mates on the other team who were interested in how our game was coming along.

I want to get more data with other testers before I analyse it, where I will then make another version of the level. Hopefully I will see improvements in the results of the questionnaire and I can then move onto another problem/ issue.

Game Test 2 (Week 7)

This week I have set up the same playtest session since I believe last week's session went well. I will be using the same questionnaire on Microsoft teams and the same level, but hopefully I will get more testers.

This week I got a few more playtesters from the second year, so not many more this week unfortunately. We are still keeping up with the incentive which we hope to carry out every week if needed.

Game Test 3 (Week 7)

The next day I went into the first years room to get more testers for my level and managed to get 5 more testers for the game. This week turned out better than I thought, however I did not supply the incentive since I already spent money on the last session. But I still managed to get some more information about my level.

Analysis 1 (Week 7)

I managed to get 15 responses for my first few sessions, I hope this is enough information to act on and I hope I can get a better overall consensus about certain areas of my level so far and fix any of the issues. For the full version of the questionnaire look at Appendix A.

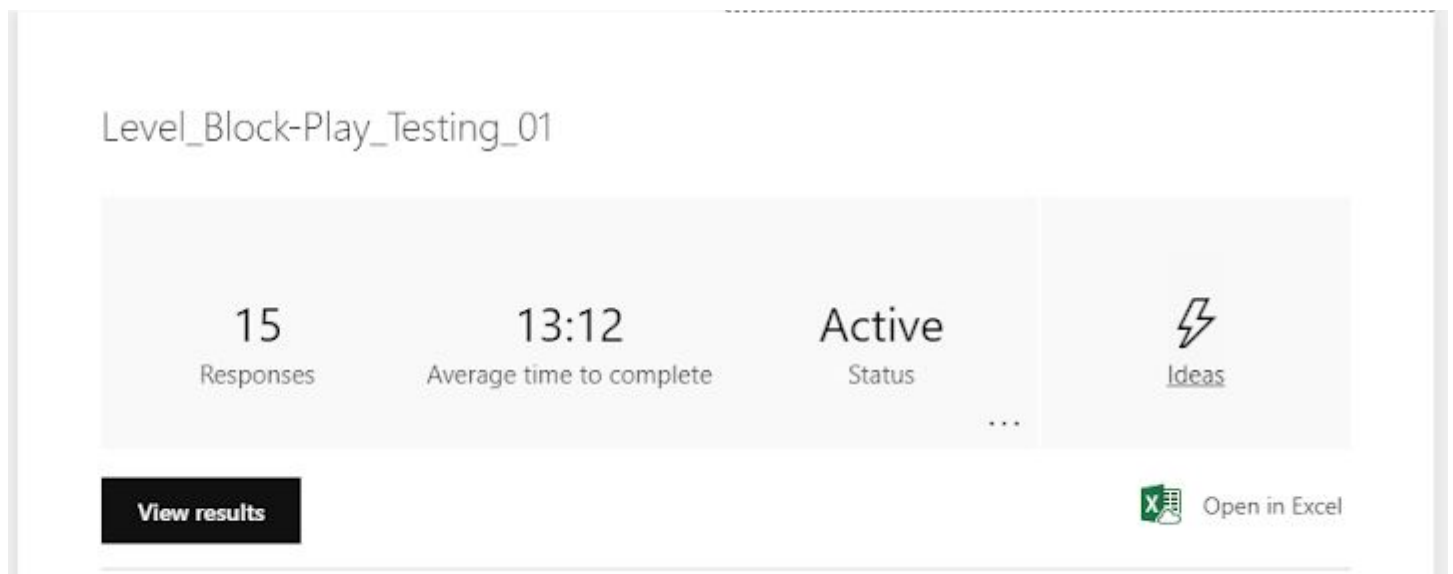


Figure 1: The overall statistics of the first questionnaire

In the question on Figure 1 it says the number of responses which i am happy with, However the anomaly I found interesting was the average time it took to finish the questionnaire. The questionnaire only consisted of 7 questions and I expected people to finish in around 5-6 minutes. Which turned out to be almost double the time I thought it would take.

I will need to keep this in mind in the future when setting up another questionnaire.

Question 1 - Results

1. Prison Section - (Where you start) How would you rate the layout of the cell block?

[More Details](#)

15

Responses



4.27 Average Rating

Figure 2: average rating of Q1

This question (see figure 2) managed to get an overall quite high mark, which I found nice since it was my first attempt at the BSP blockout system. Not much to analyse here aside from the overall consensus of the people who played.

Question 2 - Results

2. Prison Section - Is there any feedback on the layout and "feel" of the prison section? (Is it confusing?, Did you know where you were going?, Layout felt good/bad) - Optional

15 Responses

ID ↑	Name	Responses
1	Connor Hale	It felt very sci-fi. Understood where to go and flowed well. Once final assets are in it will feel more full
2	Connor Hale	make the prison cells more obvious that they are prison cells and not teleport chambers
3	Connor Hale	its good but very tight
4	Connor Hale	Layout / Path felt very natural to go down. Stairs felt a little too quick to move down, and i wasnt a huge fan of the staircase aesthetic - will probably be improved when replaced by real assets
5	Connor Hale	Path was clear, but low ceiling made the area feel confined/cramped.
6	Connor Hale	Its not confusing, i knew where I needed to go. Did feel I wanted to explore the cells themselves more though.
7	Connor Hale	Spiral staircase led me through this section
8	Connor Hale	It felt very much like a prison, it was quite overwhelming at first, not knowing where to go but I quickly got the grasp of the area and could find my way around.

Figure 3: First half of responses to Q2

2. Prison Section - Is there any feedback on the layout and "feel" of the prison section? (Is it confusing?, Did you know where you were going?, Layout felt good/bad) - Optional		
15 Responses		
7	Connor Hale	Spiral staircase led me through this section
8	Connor Hale	It felt very much like a prison, it was quite overwhelming at first, not knowing where to go but I quickly got the grasp of the area and could find my way around.
9	Connor Hale	I knew where I was going throughout the level and found it interesting.
10	Connor Hale	Very linear, if its the start of the game this could be really good. maybe add in something for the more experienced player to find/explore but its not needed.
11	Connor Hale	the layout is simple enough that i had a good idea of where what was and that
12	Connor Hale	I thought it had a really cool design, I didn't feel like the design was repeated at all, it was a good starting point. I could tell where I was meant to go.
13	Connor Hale	It was pretty straight forward and i like the guard room too which splits into 3 ways but all return to the main exit.
14	Connor Hale	Easy to move through / understand where to go
15	Connor Hale	I felt the layout was good. Was confused at first but once I figured out where I was going I was fine

Figure 4: Second half of responses to Q2

In these two questions (See Figures 3/4) I have listed all the responses to the open ended question to gauge the intuitiveness of the first half of the level. The mass of the responses were positive which I found good, so now I know that the level does show where the player needs to go without explicitly telling them. However there were remarks on the aesthetic of the first half of the prison cell, so I will probably implement a nicer looking version of the prison cell with the same structure for the next session.

Question 3 - Results

3. Guard Charging Station - How did you feel moving through this section of the level? (Good/bad?)

14 Responses

ID ↑	Name	Responses
1	Connor Hale	good but a little tight
2	Connor Hale	it felt good, a little enclosed though
3	Connor Hale	good but tight
4	Connor Hale	Good. Little cluttered, but otherwise easy to travel through
5	Connor Hale	Some places felt too narrow (kept bumping into walls and mannequins) and unsure if some dead ends were necessary. But the size of the doorframes felt appropriate to the character's height.
6	Connor Hale	When you first walk in theres a blocked off area on the left and I wanted the option to be able to go either left or right into the guard charging station. But was still clear where I needed to go
7	Connor Hale	Section is quite narrow - could be good for Time Crisis and DOOM style gunplay though
8	Connor Hale	Good! I think it it looks very cool, it being quite closed off is nice but it does feel a little claustrophobic - maybe add some form of windows or bars?

Figure 5: First half of responses for Q3

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3. Guard Charging Station - How did you feel moving through this section of the level? (Good/bad?)

14

Responses

5	Connor Hale	mannequins) and unsure if some dead ends were necessary. But the size of the doorframes felt appropriate to the character's height.
6	Connor Hale	When you first walk in theres a blocked off area on the left and I wanted the option to be able to go either left or right into the guard charging station. But was still clear where I needed to go
7	Connor Hale	Section is quite narrow - could be good for Time Crisis and DOOM style gunplay though
8	Connor Hale	Good! I think it it looks very cool, it being quite closed off is nice but it does feel a little claustrophobic - maybe add some form of windows or bars?
9	Connor Hale	Not too bad, a little bit confusing
10	Connor Hale	I like the round rooms and how one part meets up with the other. Any more of this though could disorientate the player.
11	Connor Hale	felt like a maze, at first didn't know there was anything past that
12	Connor Hale	I thought it was good!
13	Connor Hale	It was good, Good guidance given in level
14	Connor Hale	good

Figure 6: Second half of responses to Q3

In the third question (See Figure 5/ 6) I got another open ended question responses to how the second half of the level felt like. The overall response was also positive, but a few of the responses came back with how claustrophobic and uncomfortable this part of the level was and how some bits were confusing.

Since this is what I want the player to feel while they are in this part of the level, I am not sure going forward if this is the response I wanted or just something that was a little over the top. Since I made this part of the level intentionally tight and small to give off an uncomfortable vibe for when the player needs to sneak past the guards at the start of the game.

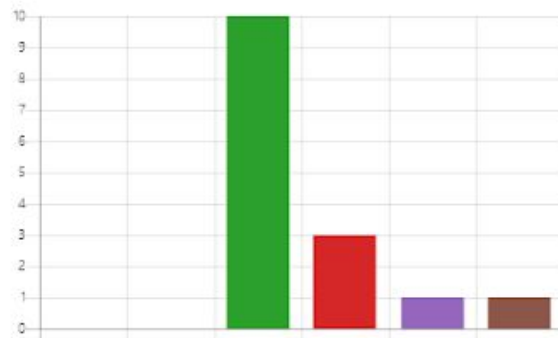
I plan on removing the centre column of the room so the other end of this part of the level is clear in the players path. But I want to keep the tight corridors that connect the rooms so I have a bit of both improving and keeping the scene feeling the way I want to.

Question 4 / 5 - Results

4. How long did you feel the level was?

[More Details](#)

Too Long	0
Long	0
Was not a problem	10
Short	3
Too Short	1
Other	1



5. How did the brightness of the level feel?

[More Details](#)

Too Dark	0
Dark	0
Just Right	9
Bright	5
Too Bright	1

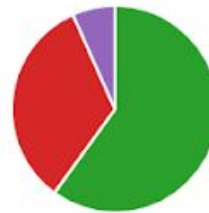


Figure 7: Graph/ chart of results for Q4 and Q5

These questions (See figure 7) were both Likert Scale type questions which in “Surveys of Game User Research” (pg 10/11, 2018) describes as a close ended question, where the user had a scale from “too much” to “too little” in context to the question being asked.

The two questions were based off of how long the level felt to the player and the brightness of the level as well. Both had a relatively positive results in where it felt it was either not a problem or just right.

For Q4 in particular the players felt it was either not a problem or too short, which is good since the level isn't entirely complete yet. So I won't have the problem in the future where the game is too long as it is, before actually finishing the actual full level of the game.

For Q5 the answers were in between just right or too bright. Since I have not played with the light setting of the level yet, I should try to make the default lighting slightly darker to better fit playtests in the future.

Question 6 - Results

6. How did the structure of the Level feel? (was it natural, did any part of the level feel off?)

15 Responses

ID ↑	Name	Responses
1	Connor Hale	Felt light a sci-fi prison
2	Connor Hale	felt very fluent
3	Connor Hale	it look interesting in a good way
4	Connor Hale	Pretty natural
5	Connor Hale	The level flowed well, the lights helped to guide through most areas. Good contrast between confined halls and areas which showed the open exterior.
6	Connor Hale	I liked the outside part the most but the reason why cell blocks are there when the rest of the area feels a bit more 'buisnessy' doesnt make much sense but it does feel natural walking through because theres a clear path.
7	Connor Hale	Rough blackout feels good, would like some contrast with open/closed areas (seeing dozens of cells through glass walls after leaving Guard Charging Station maybe before beoming more closed off and dark towards the end chamber
8	Connor Hale	It was quite natural, I did find myself walking into the cells a lot thinking that was a different way to progress.

Figure 8: First half of responses for Q6

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In this open ended question (See Figures 8/9) I wanted a little more information not on one specific part of the level but the entirety of the current level from the user. The responses came back quite positively again, with more confirmation that the flow of the level was quite fluent and was nice and straight forward.

At Least I have some confirmation on the level flow is quite good and I will need to keep up this work in the future as I progress to the next version of the improved level.

Question 7 - Results

7. Lastly, is there any feedback you want to add or anything we didn't mention? - Optional		
11 Responses		
ID ↑	Name	Responses
1	Connor Hale	As no combat in this test felt quite quick but as combat is added then it will get more interesting.
2	Connor Hale	make the button pressable
3	Connor Hale	add walls to some part so i don't fall of the map
4	Connor Hale	The beginning of the map felt much more restrictive/closed, whereas the end was much more spacious. Areas of interest were well lit by the spotlights.
5	Connor Hale	Good use of vertical space in level - makes it interesting
6	Connor Hale	The initial cell area felt quite small and secluded but this improved throughout the level, the Guard area was a bit too narrow but other than that it seems very good so far!
7	Connor Hale	Nope
8	Connor Hale	when you go through the elevator you may want to make that section dimmer/more claustrophobic to make it feel like it is underground.
9	Connor Hale	really like the section past the guard station, feels nice and open after the prison

Figure 10: First half of responses to Q7

7. Lastly, is there any feedback you want to add or anything we didn't mention? - Optional		
11 Responses		
2	Connor Hale	make the button pressable
3	Connor Hale	add walls to some part so i don't fall of the map
4	Connor Hale	The beginning of the map felt much more restrictive/closed, whereas the end was much more spacious. Areas of interest were well lit by the spotlights.
5	Connor Hale	Good use of vertical space in level - makes it interesting
6	Connor Hale	The initial cell area felt quite small and secluded but this improved throughout the level, the Guard area was a bit too narrow but other than that it seems very good so far!
7	Connor Hale	Nope
8	Connor Hale	when you go through the elevator you may want to make that section dimmer/more claustrophobic to make it feel like it is underground.
9	Connor Hale	really like the section past the guard station, feels nice and open after the prison
10	Connor Hale	N/A
11	Connor Hale	really like the layout of this game so far, good luck with the production!

Figure 11: Second half of responses for Q7

My final question (See Figures 10/11) asks the user if there was anything I didn't mention or any last feedback they wanted to add about the game. I liked the responses to this question and it came with little pointers and additional stuff they wanted in the level.

It was generally positive feedback thus far and came with some stuff that I can add to the level to make it feel more open and better for the player.

Game Tests (Continued)

Level 2 - Current State

After the results of the questionnaire came in I changed the first half of the level and finished the second half of the level, ready for the next testing session. The prison was redone but with the same structure, I made the other cells inaccessible to the players and made the building slightly larger.

The guard station was also rearranged slightly by removing the centre column of the main room. This put the exit in plain view for the player and made it less claustrophobic.

Lastly, the last half of the level was implemented with the two choice route for the player. The office route and the server room route, both leading to the same place but are made for different styles of gameplay. The server is more of a maze, as it will be tuned into the stealth section part of the game and the office is a more open space with lots of enemies to beat which will be the combat route. Finally the boss room was added, which is an underground courtroom where the player will defeat the boss and end the game.

I am hoping that these improvements to the level will improve the feedback that I was given. Since I want a direct comparison for the data I am collecting I won't be changing the questionnaire, I instead will duplicate the current one and see if the improvements differ from the first results I have gathered.

For screenshots of the first level please look at Appendix C.

Game Test 3 (Week 9)

One of the game test sessions this week consisted of an open day for the university course. I did not have any incentives for the playtest but everyone who came to the open day was interested in video games and were happy to try and test our game. I managed to get 4 testers for the new and improved level of the game.

Game Test 4 (Week 9)

Now that I have a new level I got the second years to retest the level and give me some feedback on it. Again keeping up with the incentives and trying to make sure the playtest sessions are every week at the same time.

Game Test 5 (Week 10)

One of the last playtest sessions was with foundation art students. Since it was another open day for the students we managed to set up our game and get more testers who don't normally play games. This was a great opportunity to get people who were less experienced to play our game and to also get a better insight into how to run a game test with large crowds of people. The class was roughly 40 students and not everyone was too keen on playing the game, but the ones who did gave some nice feedback.

Game Test 6 (Week 11)

Today was the last session and I managed to get a few more people from second years to play the new version of the game, at least to get the last few people who wanted to play it.

Analysis 2 (Week 11)

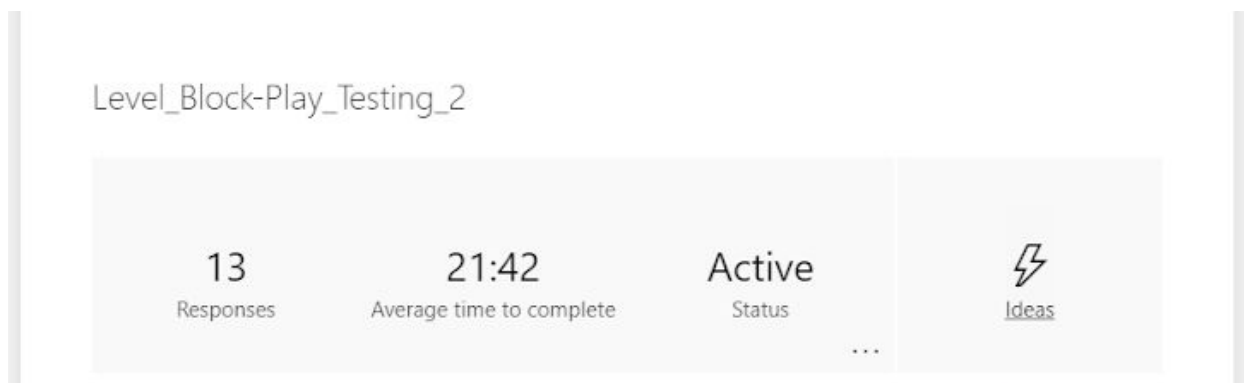


Figure 12: The overall statistics for the second questionnaire

Overall for the second questionnaire I managed to get a longer average time to complete the questionnaire. This may be due to the newer people who managed to play our game and were not used to the game test scenarios.

This time round I got 13 people to respond to the questionnaire for the improved level. This is a good number to compare to the last responses I got from the other questionnaire.

For the full version of the questionnaire look at Appendix A.

Question 1 - Results

1. Prison Section - (Where you start) How would you rate the layout of the cell block?

[More Details](#)

13

Responses



3.85 Average Rating

Figure 13: The average rating for Q1

The results have stayed consistent with the rated question compared to the last level. From this I can gather that the improved prison is still good enough in terms of layout.

Question 2 - Results

2. Prison Section - Is there any feedback on the layout and "feel" of the prison section? (Is it confusing?, Did you know where you were going?, Layout felt good/bad)

13 Responses

ID ↑	Name	Responses
1	Connor Hale	I initially went the wrong way after spawning. The option to go up and down, when the only "correct" way o progress the game is actually to go down. So possible blocking off might be needed to save time... unless there is a reward for going up.
2	Connor Hale	I went up and didn't know that you were meant to go down. I also got stuck under the stairs.
3	Connor Hale	its more confusing than the first time
4	Connor Hale	I was confused on where to go at the start. I decided to go upstairs and found out it was a dead end
5	Connor Hale	it's linear, good to direct however there seems enough there to explore for the more experienced player.
6	Connor Hale	i could tell where i was going and didn't get lost
7	Connor Hale	i liked it but i do think the directions could be more clear where to go
8	Connor Hale	The decision between going up or down was a bit much, as in either way it would take a long time before you could take the other option.

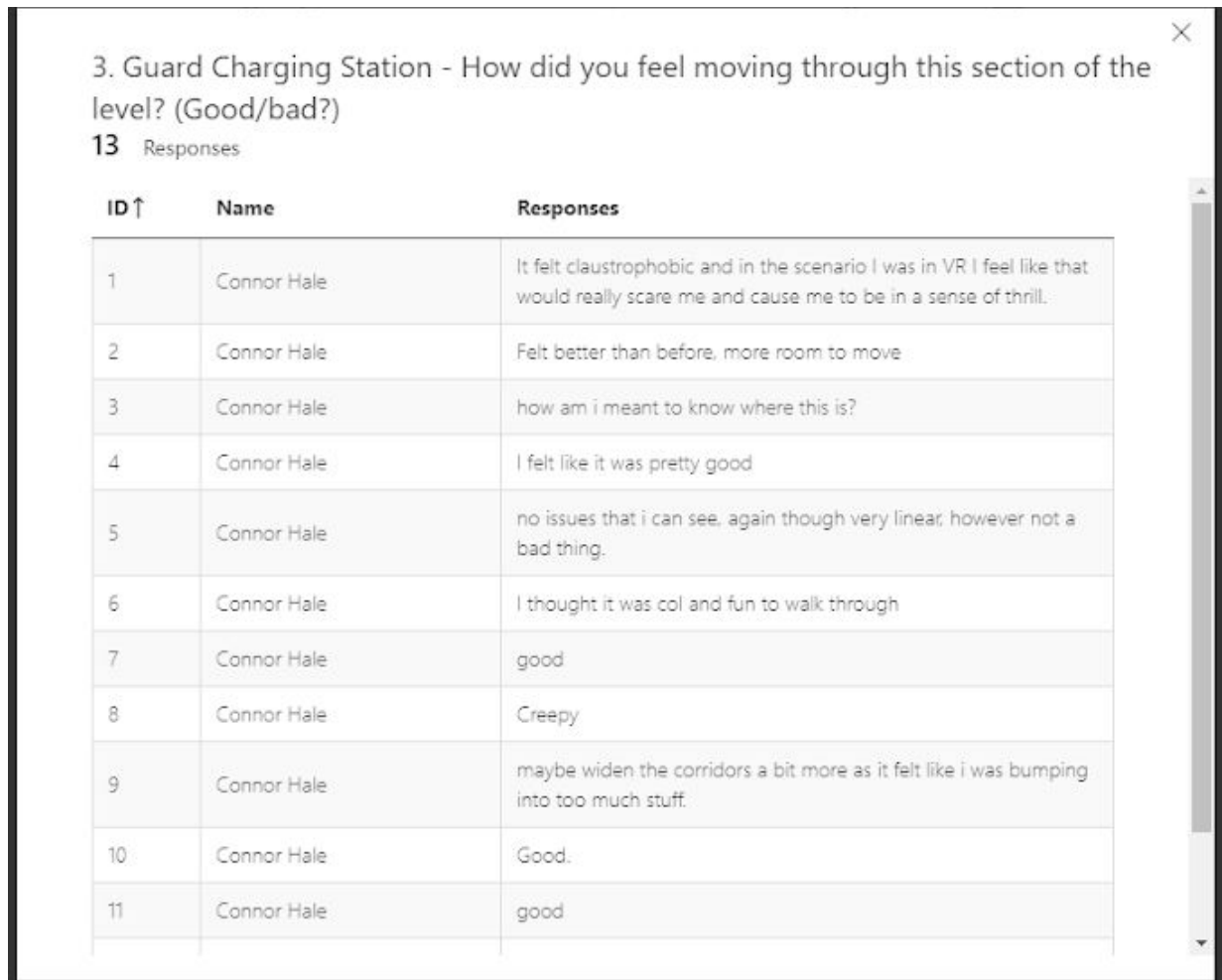
Figure 14: The first half of responses to Q2

2. Prison Section - Is there any feedback on the layout and "feel" of the prison section? (Is it confusing?, Did you know where you were going?, Layout felt good/bad)		
13 Responses		
		explore for the more experienced player.
6	Connor Hale	i could tell where i was going and didn't get lost
7	Connor Hale	i liked it but i do think the directions could be more clear where to go
8	Connor Hale	The decision between going up or down was a bit much, as in either way it would take a long time before you could take the other option.
9	Connor Hale	the prison section feels very restrictive, which i feel is a good thing, it wasn't too hard to make my way through the map. It brings nostalgia from other games and it can definitely work in its favour.
10	Connor Hale	The layout felt a little bit confusing, but it may have been more because of the grey colour of the walls, everything seemed to blend together a little bit.
11	Connor Hale	good layout, not confusing
12	Connor Hale	Not Very Confusing, I Feel like the level didn't look very prison like, maybe more o a space age level based on a space station or something like a ship.
13	Connor Hale	all good! I knew where to go

Figure 15: The second half of responses to Q2

The open question for the improved prison got lots of feedback. Most responses said they were confused because I left the entrance to the upper floors open which lead to a small nuisance for the players. I will need to improve this in the future. Since the level now starts at the centre of the floors of prison cells, people didn't know exactly where to go. This can be fixed by simply blocking off the rest of the floors, so no real issues yet about the game. Aside from my slight mistake others found it easy to navigate which is good.

Question 3 - Results



3. Guard Charging Station - How did you feel moving through this section of the level? (Good/bad?)

13 Responses

ID ↑	Name	Responses
1	Connor Hale	It felt claustrophobic and in the scenario I was in VR I feel like that would really scare me and cause me to be in a sense of thrill.
2	Connor Hale	Felt better than before, more room to move
3	Connor Hale	how am i meant to know where this is?
4	Connor Hale	I felt like it was pretty good
5	Connor Hale	no issues that i can see, again though very linear; however not a bad thing.
6	Connor Hale	I thought it was cool and fun to walk through
7	Connor Hale	good
8	Connor Hale	Creepy
9	Connor Hale	maybe widen the corridors a bit more as it felt like i was bumping into too much stuff.
10	Connor Hale	Good.
11	Connor Hale	good

Figure 16: First half of responses to Q3

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13 Responses

Latest responses

Figure 17: Second half of responses to Q3

Again lots of good feedback for the guard charging station of the level, some feedback about the claustrophobic side to this part of the level came through but the overall consensus was positive so I believe I will keep this the way it is.

Question 4 / 5 - Results

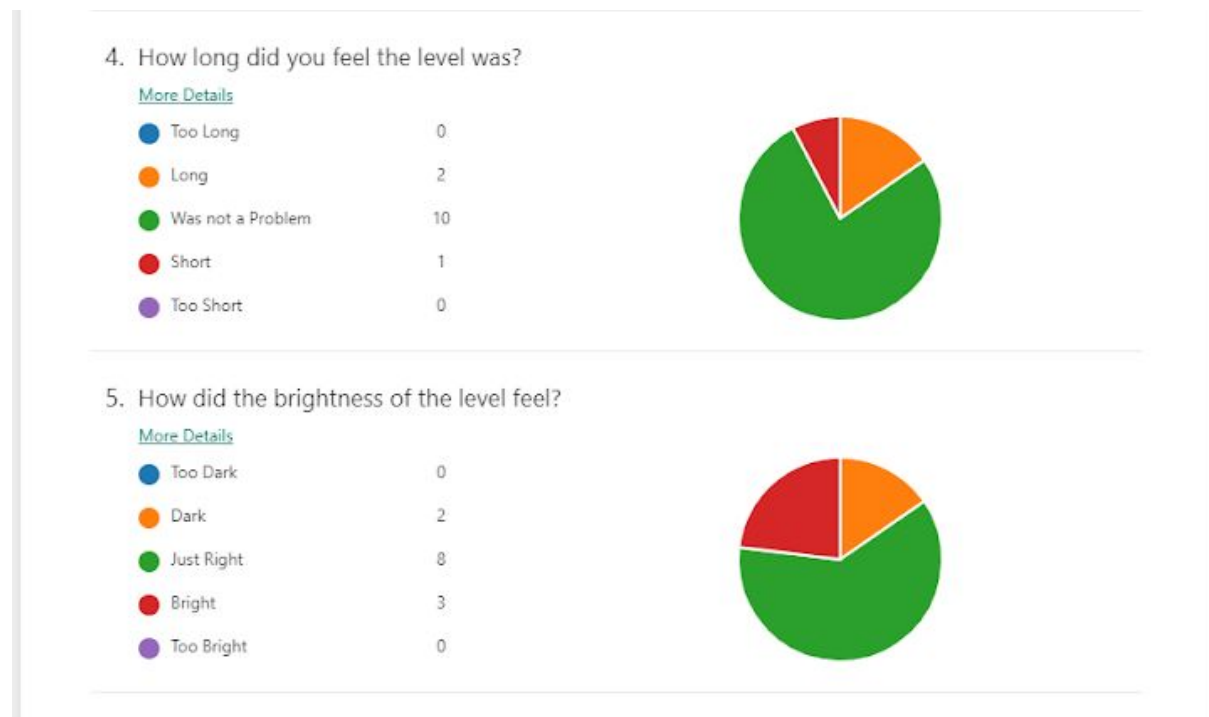


Figure 18: Statistics for Q4 / 5

Now that I have updated the next half of the level I had some of the first responses to say it was a bit long to walk through, which is not too bad for the layout of the entire first level. Most testers found the length of the level not even problem which is exactly where I want the general consensus to be. This result came back the way I wanted it, so I will keep this in mind when it comes to adding content into the level.

Again for the lighting of the level the results came back with an average of just right, which is again something that needs to be considered when we decide to mess with the lighting of the level.

Question 6 - Results

6. How did the structure of the Level feel? (was it natural, did any part of the level feel off?)

13 Responses

ID	Name	Responses
1	Connor Hale	For the purpose of blocking out, I get that some parts are just in that phase and do not need to be in, but the walls sometimes are not existent and without that I feel like i can just hop off onto a mesh without collision.
2	Connor Hale	Level felt natural and actually like a facility
3	Connor Hale	felt a bit disjointed, other than that it felt good
4	Connor Hale	It felt pretty natural especially for a prison
5	Connor Hale	the second part: felt very much like a maze if you head straight on instead of visiting the office spaces.
6	Connor Hale	I liked the varing bits of the level, where they went from prizen to office.
7	Connor Hale	i liked how it feels but some areas i feel don't seem to go anywhere or show any purpose
8	Connor Hale	I liked that each part was different, even without textures it felt interesting
9	Connor Hale	going down some stairs that had a gap kind of stopped the game play as i got stuck and took some time to get out

Figure 19: The first half of responses to Q6

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6. How did the structure of the Level feel? (was it natural, did any part of the level feel off?)

13 Responses

3	Connor Hale	felt a bit disjointed, other than that it felt good
4	Connor Hale	It felt pretty natural especially for a prison
5	Connor Hale	the second part: felt very much like a maze if you head straight on instead of visiting the office spaces.
6	Connor Hale	I liked the varing bits of the level. where they went from prizen to office.
7	Connor Hale	i liked how it feels but some areas i feel don't seem to go anywhere or show any purpose
8	Connor Hale	I liked that each part was different, even without textures it felt interesting
9	Connor Hale	going down some stairs that had a gap kind of stopped the game play as i got stuck and took some time to get out
10	Connor Hale	It felt fine.
11	Connor Hale	natural
12	Connor Hale	the outdoor section felt rather off from the rest of the level but other than that felt rather natural to play and look at
13	Connor Hale	nothing wrong with it

Figure 20: Second half of responses to Q6

The responses on how the entire level felt came back with some varying opinions. A few people didn't like the lack of content in the level so areas did not have a purpose which is entirely understandable. But this was to be expected at this stage of the game since in the next semester, the plan is to start implementing the story, dialogue and mechanics into the level. But overall some very good feedback for the level.

Question 7 - Results

7. Lastly, is there any feedback you want to add or anything we didn't mention? - Optional

7 Responses

ID ↑	Name	Responses
1	Connor Hale	The implementation of doors and walls will be needed, the game might seem short without those obstacles saying you have to stay here shortly.
2	Connor Hale	if there is a button in the game make it usable
3	Connor Hale	No other additions, I'm looking forward to be seeing the final version!
4	Connor Hale	the reason i choose the level to feel short might be to do with the lack of story/dialogue ect maybe with more guidance on the full level it would feel longer?
5	Connor Hale	i fell though the floor the game stopped and i didn't know how to reset it.
6	Connor Hale	The level did feel rather empty at times so maybe adding more would be better
7	Connor Hale	I think the mouse sensitivity is a bit too high, sometimes it gets a bit confusing moving around because the camera turns so fast. Other than that very good :D

Figure 21: Responses to Q7

On the last question I had some good feedback on making the level more full, some feedback was already planned for the game in the future but overall some nice feedback.

Results Summary

Data on usability, Intuitiveness, Level length

These were the three aims for these playtest sessions, it came with lots of responses and usable data. Since I was able to change parts of the level to make it more player friendly like the prison and guard charging stations. Both areas had some feedback on making it better for players and I attempted to correct them.

This however resulted in a large backlash when I tried changing the first part of the prison. Although it was an easy fix, I did not realise how much of a problem letting the players explore around the first half of the level would be. Something I need to keep in mind in the future, I realised through the feedback that not having any kind of reward for the player to explore left them annoyed. I was able to fix this due to the feedback that I received which is good.

The games intuitiveness came back with good results. Perhaps because how linear the game is. But the game itself does not give the player any explicit instructions on what to do or where to go. However almost everyone who played the game got to the end of the level without any outside help and intuitively got to the end. So I believe I got what I needed in terms of data and feedback.

The games length was also a concern so I wanted data on this to make sure the level was not too long. I think in the future I will not only need visual data on the subject but also some open ended opinions on the matter itself. I should have thought about this and added in some space for more notes and feedback. Since this was one of my aims I felt like I needed more data on the subject. I was lucky the data came back positive, but I think I need more on this in the future.

Conclusion

For the playtests for our game we researched how to make our questionnaire better by establishing aims and goals beforehand and then basing our questions around getting those answers from testers. I realised that through analysing the results for the questionnaire that regular playtests will help make the game experience better by having constant feedback from our target audience. To refine the process in the future we will need to reexamine the questionnaire for the data that we want and that more playtests with more testers will give you more data to work with.

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Appendix

Appendix A

Questionnaire Link - "[Level Block_Play Testing](#)"

Questions

Responses 15

Level_Block-Play_Testing_01

Welcome to our play test! This questionnaire is for our level blockout. If you could answer as honestly as possible that would be great!

Since we want to fix any and all problems or concerns, having honest feedback will help us with that. Which should make for a better game.

1. Prison Section - (Where you start) How would you rate the layout of the cell block? *

☆ ☆ ☆ ☆ ☆

2. Prison Section - Is there any feedback on the layout and "feel" of the prison section? (Is it confusing?, Did you know where you were going?, Layout felt good/bad) - Optional

Enter your answer

3. Guard Charging Station - How did you feel moving through this section of the level? (Good/bad?)

Enter your answer

4. How long did you feel the level was? *

- ☐ Too Long
- ☐ Long
- ☐ Was not a problem
- ☐ Short
- ☐ Too Short

4. How long did you feel the level was? *

- ☐ Too Long
- ☐ Long
- ☐ Was not a problem
- ☐ Short
- ☐ Too Short

5. How did the brightness of the level feel? *

- ☐ Too Dark
- ☐ Dark
- ☐ Just Right
- ☐ Bright
- ☐ Too Bright

6. How did the structure of the Level feel? (was it natural, did any part of the level feel off?) *

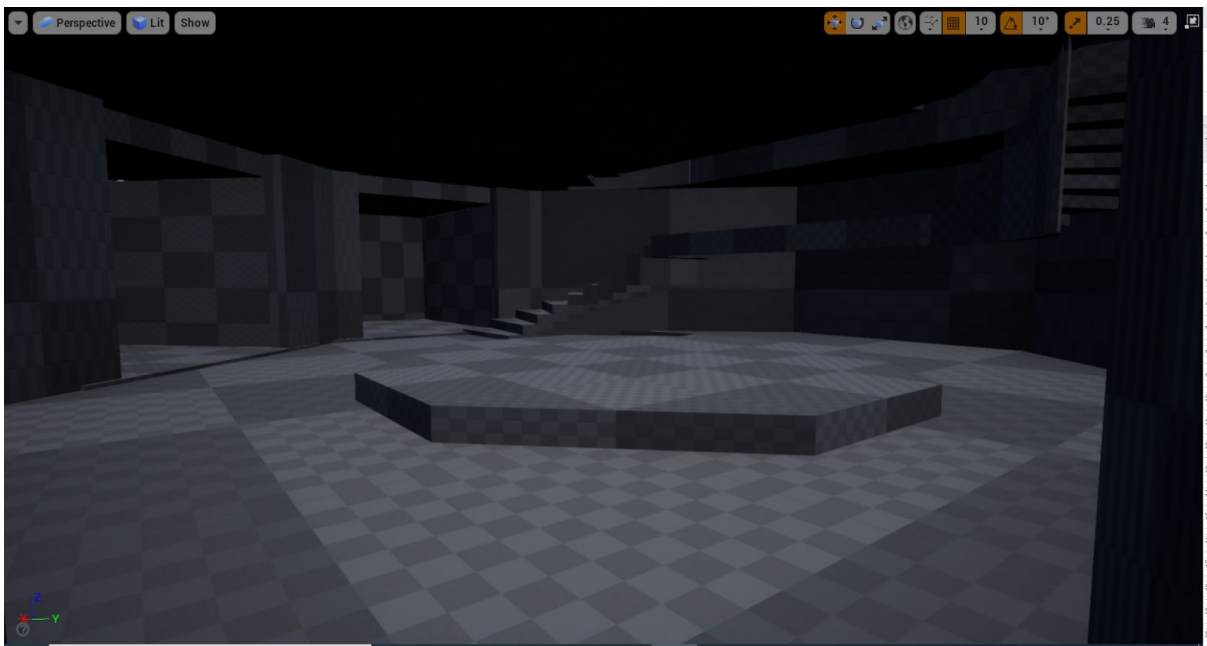
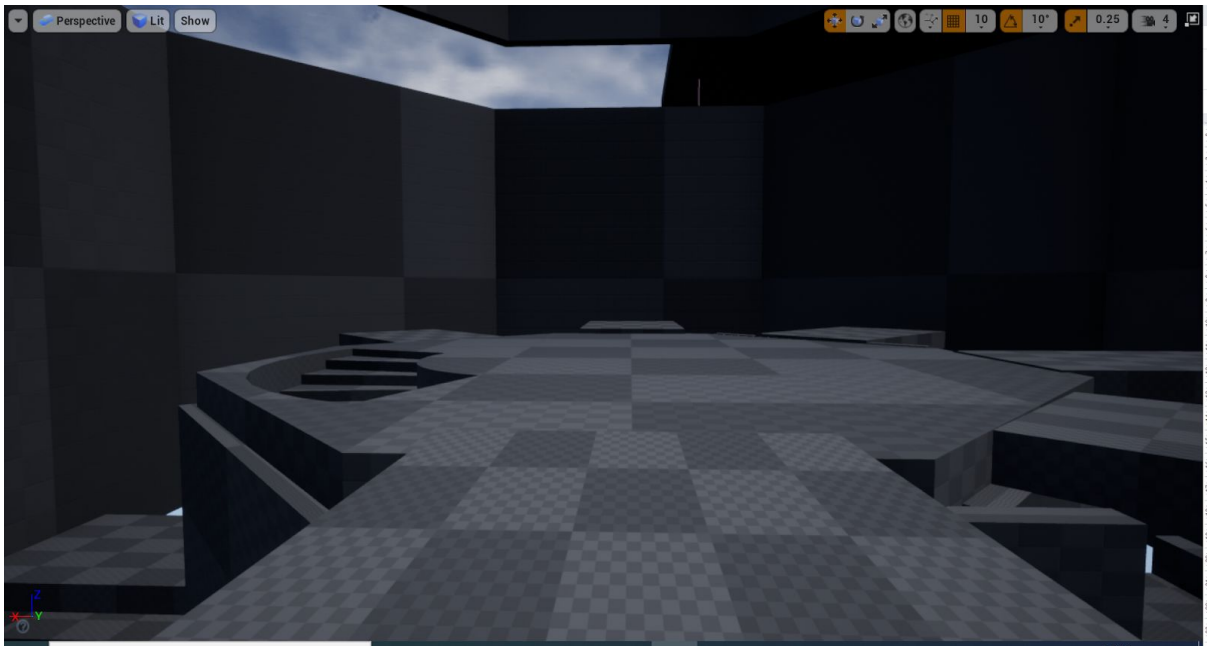
Enter your answer

7. Lastly, is there any feedback you want to add or anything we didn't mention? - Optional

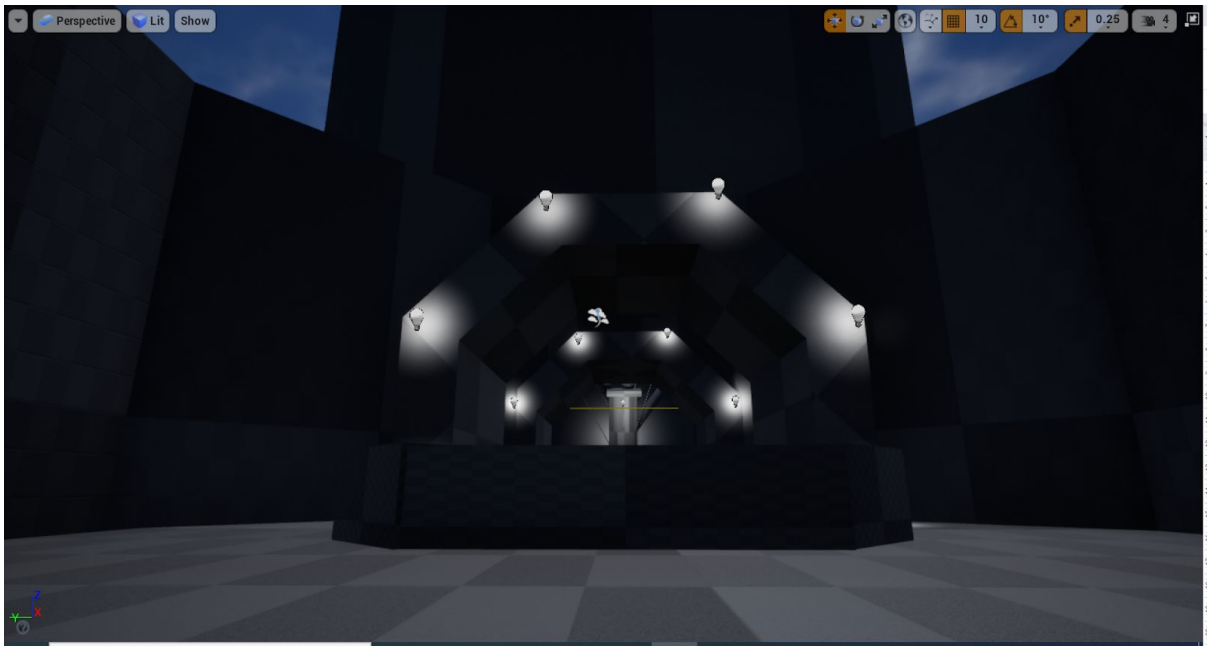
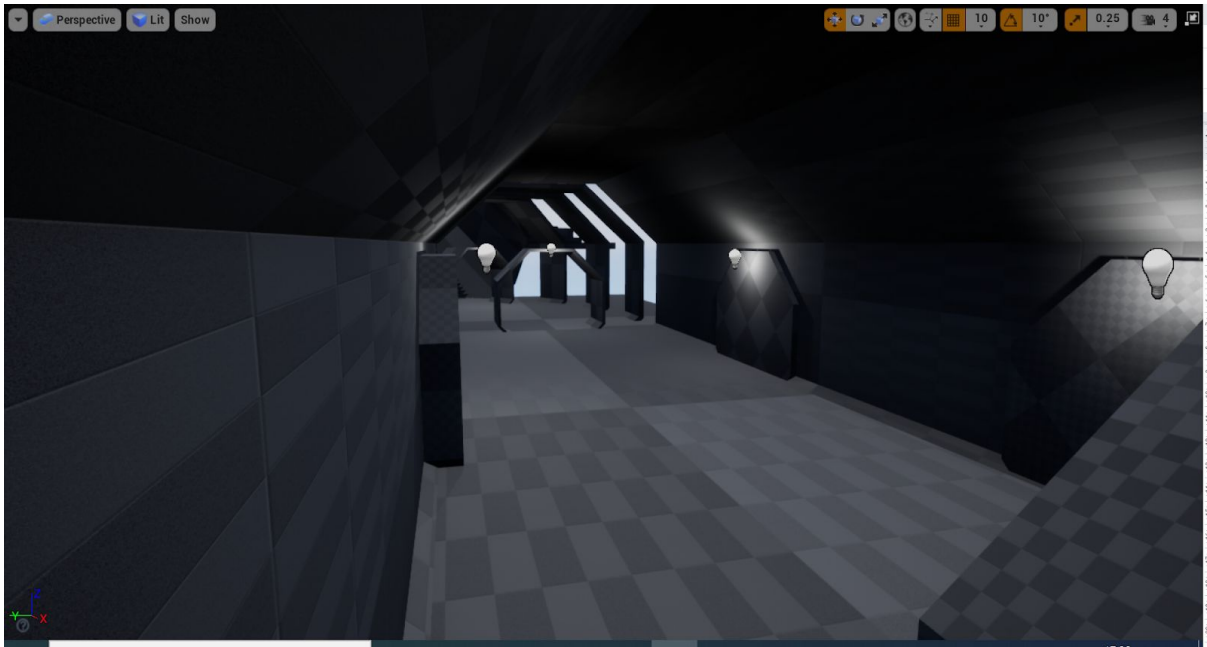
Enter your answer

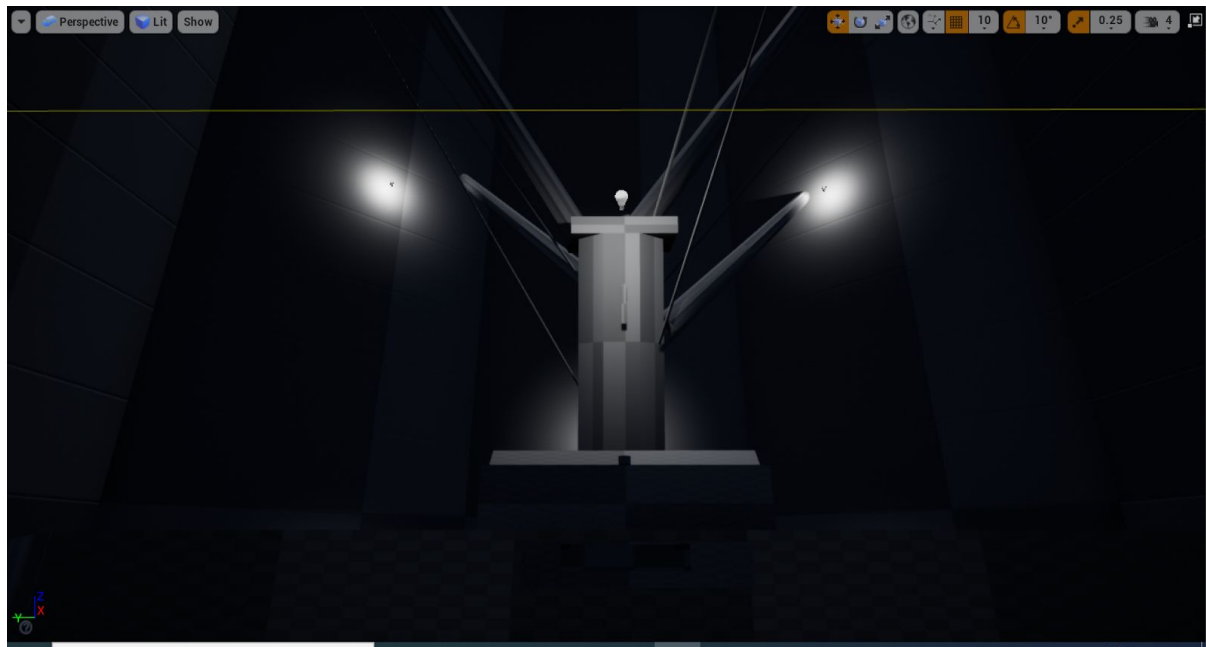
Appendix B

(First version of the game)









Appendix C

(Second Version of the game)

