



Learning Log 2022/23 Y2C Lukas Alongi (DP) 226453





How to use this template

As a student at Breda University of Applied Sciences studying to become a professional game developer within the International Game Architecture and Design (IGAD) study program you are required to provide evidence that demonstrates your professional learning and growth during the block. This template is intended to provide you with a well-structured and organised format for doing this effectively.

In the following slides, you should report what you have done for each ILO (Intended Learning Outcome) by collecting evidence regularly. You should show in-progress work, add screenshots and videos where appropriate, provide links to external documents if needed, and summarize the feedback on progress made

You're free to use more than one slide per indicator.

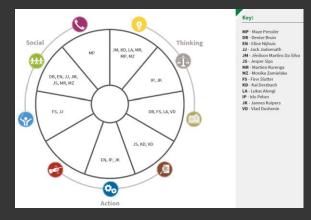
Please use **hashtags** to tag your story. For example:

- #W1 #W2 #W3 etc. to label in which week you've worked on what
- #Feedback for feedback received by staff or fellow students
- #ActionPoint for personal action points, following from feedback or experience
- #Reflection for your personal reflection on the block

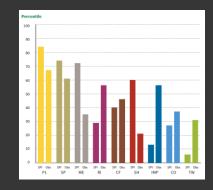
I have never encountered Belbin before the workshop. My group has a large portion of teamworkers, which was my lowest scoring role. I have never had any issue with working in a group and my diplomacy and cooperation within a group has always been good. I believe my low teamworking role should not affect group dynamic.

Our group lacks a defined shaper role, and since I gave myself a high shaper score, I could try and fill this role, but I think it is not my place as an exchange student to form my group's direction by myself. Our group also has an unbalanced ratio of plants to implementors, which may lead to an excess of ideas with no execution. Work will go smoothly throughout the project because our team has high teamwork, however, I worry there will be a level of indecisiveness when there is nobody to take charge of a situation and put the foot down on a decision.

Within the group I should seek out the implementer and coordinator roles, as we can complement each other to reach a better end product.



Each of our members 2 highest roles. Shaper is entirely missing from the chart, as well as only 1 resource investigator.



Describe

ILO 1

When there is not clear answer to a question, the decision is postponed. Additionally, when there was no definitive idea/concept for what to aim for, the team just works on features despite there being no real direction with said features.

Interpret

As the Belbin stated, our team lacks a Shaper, which results in a less firm grounding in what is needed to be done. While we have the Teamworkers who want to function within the group and the Planters who bring ideas to the table, there is a distinct need for a strong personality to point a direction. While I think the content we produced is not bad, the lack of cohesion surrounding the project prohibits the game from exceling, which is what the team wants to do. I think the team is proud of our work so far, but we acknowledge that we need to form a stronger direction for coming work.

Evaluate

There needs to be a quality control, somebody who is manages the ideas being proposed to limit the amount of content generated and really ask the hard question of whether we need each piece in the game.

Plan

I think our team needs a lead, or a core group with a unified vision, to set documentation and dictate what benefits the game. As I designer, I could help with the documentation, especially with aligning the game feel with our user feedback (which we received during Play Day). I don't find myself comfortable in a lead position yet, but definitely in a supporting or reference role.

[#W1] Week 1: Events

- Approached Renee to ask about the exchange, found out we should have already begun, told to start next Tuesday.
- Received links to Unreal tutorials to follow

Week 1: Learning

- I am a bit out of my depth with my education, as the standard here is higher.
- The basics of how Unreal works (which is quite similar to Unity, Blueprinting is just different)

Week 1: Action Points

• [W1] I want to get a lot out of this exchange, and I feel like I can if I put in the effort to branch out of my comfort zone and extent myself in my work.

I missed the first week of school because of some miscommunication about the exchange. This means I did not attend the first two workshops, Catgun 9000 and Minimization.

[#W2] Week 2: Events

- Worldbuilding workshop
- Peperuga workshop
- LD guild
- Introduced myself to Nick, who introduced me to Mathias Larsen

Week 2: Learning

- I am not used to long school days and they tire me out.
- Beginning to understand how the school runs and how the students fit into it.
- Learned about Learning Logs

Week 2: Action Points

• [W2] I need to get into a rhythm, which lets me prepare for each day and work longer.

Previous Action Points

• [W1] There has been a lot of information to ingest. I feel like I could be getting more if I wasn't so tired after each day. Still need to work on this.

ILO 2 Reflection

As a student, I continuously reflect on my actions and choices so that I can improve my learning processes.

[#W3] Week 3: Events

- Game seed jamming workshop
- Generative art workshop
- LD guild

Week 3: Learning

- <u>#feedback</u> from Rene and Wouter during the Game Seed Jamming; even if you feel like you're reaching the limit of your ideas or that you have enough, push it another half an hour and let your brain think.
- I have trouble finding the correct key terms for generating AI art.

Week 3: Action Points

 [W3] Push through the ideation barrier to squeeze out those deeper ideas. Just because I feel like I do not have ideas left doesn't mean I should stop.

Previous Action Points

• [W1] More active in this week's workshop, in part due to getting over the hump of the first week and [W2] getting into a rhythm with work.

As a student, I continuously reflect on my actions and choices so that I can improve my learning processes.

ILO 2

Reflection

[#W4] Week 4: Events

- Team first meeting and kickoff, everybody was very nice.
- Game seed development (first diverge 30 seeds, converge into 4)
- LD guild

Week 4: Learning

• I find myself questioning and undermining my abilities when discussing topics with other group members, which I would attribute to a case of imposter syndrome as the exchange student. While I felt very confident in my capabilities back in Finland, the overall standard and knowledge of everybody at Buas has me desire to make the "correct" choices all the time to show my "worth".

Week 4: Action Points

[W4] I should regain my self-confidence and just put
myself out there and not be too focused on never making
mistakes I can work towards in the coming weeks. This is
a learning environment; you can't learn without stumbling
at least a few times. I believe this will be attainable,
especially once I start to slot more into the group and
familiarize myself with the people.

Previous Action Points

• [W3] During our first divergence, my group hit a small bump when creating idea fragments and when they wanted to start compiling, I recommended to wait and push forwards for another 30 minutes. These 30 minutes really helped squeeze the last little thoughts before the compiling of the ideas, and actually created some of our groups more unique ideas.

Reflection

As a student, I continuously reflect on my actions and choices so that I can improve my learning processes.

[#W5] Week 5: Events

- Iterating on 4 seeds, expanded to 8 and then trimmed down to 2.
- Chose frog spy seed but changed to Pangolin seed morning the morning of the presentation.
- Game seed presentation
- LD guild

ILO 2

· Narrative guild

Week 5: Learning

- I noticed that I don't want to step on the toes of others when it came to choosing game seeds.
- Lots of meetings tire me out
- A lot of people take notes on paper, which I don't do.

Week 5: Action Points

- [W5] I need to assert my opinion more when discussing issues that I feel could impact the group so they can be discussed before they become large roadblocks.
- [W5] I need to start bring a notebook to meetings so I can write down my immediate thoughts. This was reiterated in presentation Nick gave during LD guild about how a designers should draw more.

Previous Action Points

• [W4] I have definitely improved my mentality around imposter syndrome and have become more familiar with group, which helps me understand how people think and allows me to change how pose ideas. I will continue this action point into the future weeks.

[#W6] Week 6: Events

- Team implemented morning meeting agendas
- Mapped out narrative routes and narrowed down direction with character. Nicked offered advice and direction with narrative
- Discussed gameloop, minimization, and moveset with the DP and PR members to fully pinpoint out vision and goal going forward
- Made iterations on the distinctions between walking and rolling mode for Pango.
- 1on1 with Nick
- LD Guild

ILO 2

#freeback from Nick during 1on1 for Belbin. My associated words, specifically the highest three weaknesses, are skeptical, restricted in outlook, and engrossed in own area. While I was already previously aware of these weakness from my own observation, hearing them from my observers reinforced my need to be aware of how I act. Oftentimes, my skepticism is a result of me trying to poke holes in an idea even if I agree with the proposition, just to make sure it is watertight. I realize this may not always be favorable to people and can seem as if I dislike new ideas.

Week 6: Learning

- Starting to get more accustomed to Unreal
- Don't think of each game component as functioning separately, but rather as one cohesive unit with the narrative.
- Getting a fresh pair of eyes with a different way of viewing a problem help the bring me out of my circular thinking.
- Look for people who complement my workstyle, i.e. implementers

Week 6: Action Points

- [W6] I need to learn Unreal blueprinting, or at least a base level to achieve an understanding of how it works so I can edit and tweak the player controller.
- [W6] Be aware of my tendency to think circularly, as in make a loop of thought where all my ideas feed into each other so I
- [W6] Get second opinions on issues that are stumping me rather than trying to solve them myself. My mind works best by drawing connections from external information/guidance. For example, "have you though about going this route?", my reply would be "I have not, but now my brain is racing though the possibilities."



Previous Action Points

- [W4] Imposter syndrome has improved. I find myself bringing up my thoughts more often in discussion, and others take my concerns seriously.
- [W5] Stated my opinion on the movement mechanics during our discussion surrounding its implementation (and nothing bad happened). I should continue to have more solid opinions on things that matter to me.

[#W7] Week 7: Events

ILO 2

- Level designing long flowing sections
- Indiana Jones and the Raiders of the Lost Ark watch party (teambuilding)
- Demo level design + iteration
- Accidentally deleted the work in my Unreal scene while trying to fix its visibility.
- · Combining Finn and Ido's together with mine to the final demo level

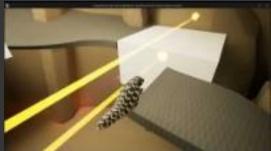
Week 7: Learning

- Do not rename levels in Unreal, it will make your work disappear.
- I need to record my progress constantly in the moment, rather than going back after everything is done to collect evidence.
- When I level design, I don't plan out the routes before hand, which means I will sometimes make disjointed segments.
- because I want my work to be clear with what it is conveying.

Week 7: Action Points

- [W7] Plan basic goals for platforming segments to map out the route and what it is teaching the player. Platforming should not just be the act of jumping around but constantly teaching or honing the player.
- [W7] I should share my work more often while it is in its incomplete stages to get immediate feedback to enhance it. This saves time on later iterations where an issue can be caught early on and fixed.
- [W7] I need to record my work in the moment, so I can evidence as well as see my progress. This is something I wish to fix for Block D





Previous Action Points

- [W6] I added a debug trail to the player character through blueprints and tweaked the velocity numbers of the character's slope movement. This is a definite step towards understanding Unreal blueprinting more.
- [W6] I should have asked Finn and Ido earlier for level feedback so I wouldn't be so stuck in my current thoughts. Need to work more on this action point.

[#W8] Week 8: Events

- · Game prototype presentation
- Play Day
- ILO deadline

Week 8: Learning

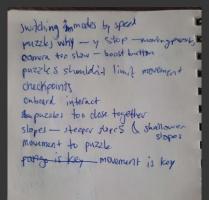
- I still make complicated platforming for beginners. Perhaps I should invert controls when I play test?
- A whole abundance of things about our game and where it needs to improve.

Week 8: Action Points

- [W8] Although I am aware of my tendency to make challenging platforming for beginning sections and attempted to avoid doing so for the demo, I still made challenging and unclear parts which the player tackled without using any of the "fancy" techniques intended. Moving forward in level design, I need to deconstruct the platforming challenges to their basics so I can deliver a simple play experience to the new player.
- [W8] Now that I understand how the Learning Log works, I want to make mine look visually appealing and fuller. Next block I need to record everything and constantly update ILOs.



Notes from Play Day



Previous Action Points

- [W4] I had the confidence to discuss and debate game design and mechanics with other game groups whom I had never met, which is exactly where I would like my confidence level to be. However, I still lack the initiative to approach random games I am not familiar with. More to work on.
- [W5] I had brought a notebook to school most days but never got around to using it until this week. Used to record player feedback during PlayDay.

My most significant achievements this block

- A section of the demo level prototype used for game showcase at Play Day.
- Made a proposition for the narrative and worldbuilding, which the team accepted.
- an exchange student and have my voice be respected in the group.

My most difficult challenges this block

- Losing all my level design work by accident, requiring me to rebuild from the ground up.
- prototyping phase because I lacked the Unreal blueprinting skills to make design iteration that is not just drawing on a paper.
- things, often requiring multiple meetings for said thing to be agreed upon. Some examples being the initial game seed choice and the name of our game taking more than 3 meetings.

The most important lessons I learned

- Record legitimately everything. Just evidence all the work I do so I can look back at it for reflection as well as a progression benchmark.
- My voice is just as important as anybody else's.
- I get stuck in circular thinking, so I need to ask for secondary opinions to unstick myself.

I think I did a satisfactory job this block, not anything poor but nothing fantastic. I was present with the group, whether it was a lab day or not. I made reflections for each week, with at least one major action point mentioned per reflection, which was acted upon in the subsequent weeks. However, I think I could do much better.

The teamwork on Pango was very enjoyable. Everybody had a desire to push the game to be better, which is always a good sign. The Belbin workshop was also an interesting experience, and it provided some clarification on how our team would work going forward. I think our team recognized a lot of what was discussed at the Belbin workshop in our groupwork but hearing it out loud by someone outside the group really helped to bring attention to our possible shortcomings and weaknesses.

In summary, I had a good block C where I was communicative and helpful, learning a lot from the feedback I received from fellow students and teachers. I hope to continue this into the next block, ideally reaching a higher level than I did now to prove to myself I can do better.

How I plan to improve next block

My reflections start a little weaker in the start of the block but become fuller as the weeks go on. I want to record everything and stay on top of my ILOs from the beginning. I think this is very obtainable, especially since I have this Learning Log under my belt as experience. I hope to put more effort in appearance as well, because my slides need a little more character.

I want to plan out my levels before I design them. I have skills necessary in Illustrator to make visualizations, so I should use them to make my work better. I also want to sketch more, so I plan to get a new notebook.

Lastly, I want to ask for opinions more on my work. I can quality control my own work, but I need to escape my circular thinking. Asking for a second opinion on an idea will help me gain new insight and ideas to make my work even better.

Workshop: Horizon Zero Scope - Minimization

Had not started school yet

ILO 3

Workshop: CatGun 9000 – Prototyping a Gameplay Mechanic Together

Had not started school yet

Workshop: Worldbuilding

Documentation:

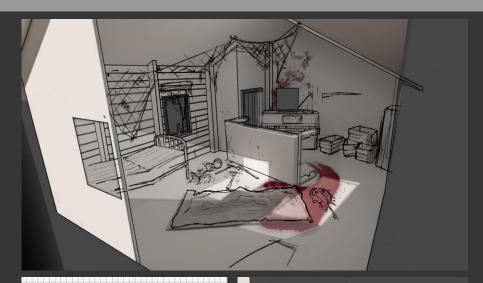
Miro

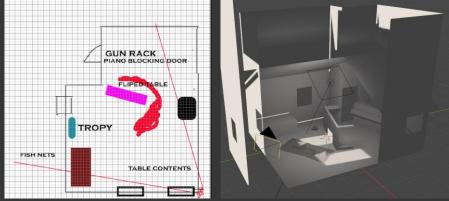
<u>Deliverable</u>

In the Worldbuilding workshop, my group created a scene from the game Hunt: Showdown. The story we decided to tell was that of a deadly conflict between two hunters, which resulted in the theft of the loser's prized belongings, and life.

We began with a discussion on where we should take our scene's narrative. After choosing the narrative, we began filling the Miro board with visual reference for aspects of our scene. When we had enough, I made a blockout in Blender for the scene, with our group then used to create the final output.

It was an interesting exercise, allowing for me to try a form of storytelling I had practiced. The workshop also taught me to keep the story simple, despite the desire to add little nuances. The average viewer will not be able to pick up on these. Small nuances are especially unnecessary in a workshop like this, where the goal is to create a scene in only a day's work.





ILO 3

Workshop: Worldbuilding

Documentation:

Miro

<u>Deliverable</u>

The homework was similar to the workshop, except for the setting being the exterior or the building. Having learned from our previous mistake with the complexity, we simplified the narrative to be less ambiguous. However, now that the narrative is simplified and the camera positioning has changed, it is harder to predict what has happened inside the room before entering. This is an interesting dilemma, where the outside is too simple, but the inside is too complicated. If this task was done again, I would consider both the outside and inside scene together to make sure they retained a visible connection.

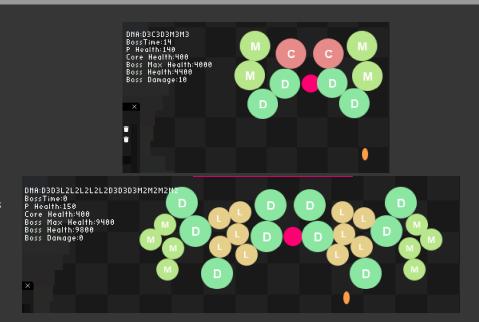
The key takeaways from this workshop is

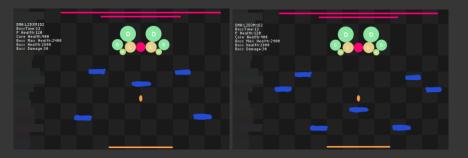




Workshop: PEPERUGA - Procedural as an Exploration Tool

This workshop was interesting in the beginning, but slowly got tedious and dull as the day went on. I had never looked at procedural generation and Houdini before, so the initial investigation was interesting. However, there was only so much to do without having a clear direction, and since I couldn't read the code of Peperuga, I investigated the design of the bosses for the rest of the day using the DNA feature. I tested how difficulty of each boss component to see if there was a linear balance in difficulty I could achieve. I found that specific components such as missile and defense made the boss battle becomes immediately more challenging the more were of them. The hardest boss I manage to create with only 5 segments was from defense, missile, and cannon components. This boss would reflect your attacks constantly while covering its core with cannon fire, making it difficult to get an angle on the boss to destroy it.



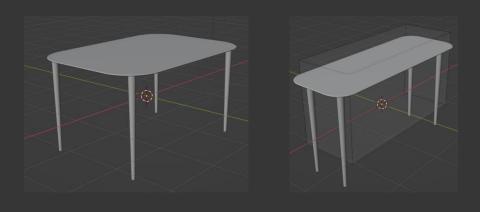


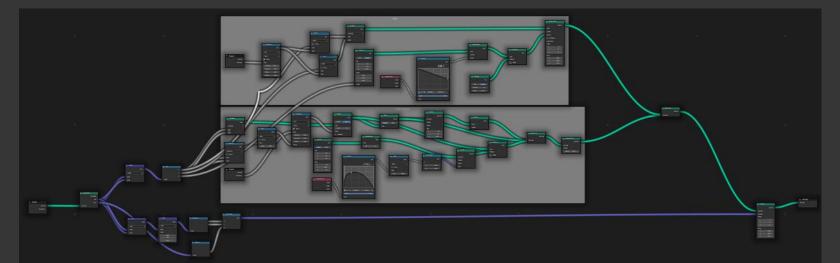
I also had some thoughts of what other procedural components could be added to Peperuga, and I came up procedural barriers/terrain which spawn with each boss, providing varied player experience and more possible ways to defeat the boss. The barriers could be destroyable and also generate in the butterfly pattern the bosses do. On the left are two mock-ups of what I thought procedural barriers could look like.

ILO 3

Workshop: PEPERUGA – Procedural as an Exploration Tool

For the homework, I did a self-study into nondestructive editing in Blender, where I made a table with legs that move with the top surface's size. It only used a default cube as the base and used nodes to generate the table legs. This workflow was much different than how I am used to working, and it took a fair bit of time to get the hang of essentially coding my modeling. I was not a huge fan, but perhaps it was because of how long it took me to make the nondestructive editing to work. However, I do see the use of using a tool such as this, especially for making a lot of the same asset but adding variability to its appearance.





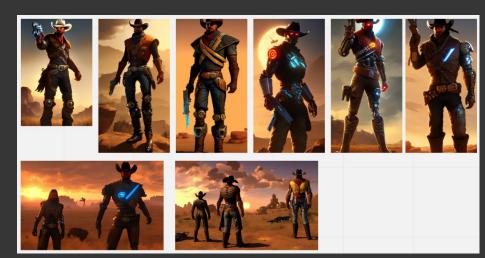
Workshop: Generative AI as an Exploration Tool

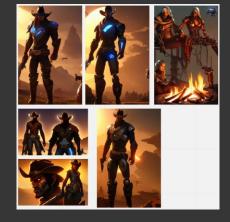
Documentation:

<u>Miro</u>

Deliverable

Generative Art and Concept Art was another interesting challenge for me. Having worked with artists a lot for previous school projects, I find that I can communicate my ideas effectively, to the point where the art created is what I had imagined (or better). However, I have always found that I have an issue when making search terms when researching specific things online, and so I have also been a little apprehensive with trying AI generated art. As I suspected, I had a good deal of trouble attempting to point Stable Diffusion in the correct direction. Working with it slowly helped me learned how to tweak search terms and understand how fundamentally different it is trying to communicate to a computer rather than a human. And I think AI still have a long way to go until artists are replaced.





Workshop: Generative AI as an Exploration Tool

For the homework, I did personal study into how changing specific words modifies the outcome, and whether it is something I can predict. I went for a medieval horror game aesthetic. I specifically picked something simple because I wanted to have an easy benchmark to base my investigation off.

I found Stable Diffusion to be very irregular, where prompt length didn't impact its precision to a high degree, which I feel would be an important feature for such a program. Despite me shortening the prompt by half the amount to just its simplest words, the result is essentially the same. The strangest quirk to me is how most of the results ignore the landscape prompt, opting for more of a close shot of a building. The strangest part is how none of the images have a realistic appearance to them as implied by the prompt, which I feel is simply a limitation of Stable Diffusion itself because I came across the same issue during the workshop day.

Prompt: medieval, dark, wet, horror, survival, bleak, village, infected, rotting, road, decay, rainy, cloudy, realistic, hd, real life, landscape



Prompt: medieval, dark, horror, village, rainy, cloudy, ruined, realistic, landscape



Workshop: Game Seed Jamming

Documentation:

Mirc

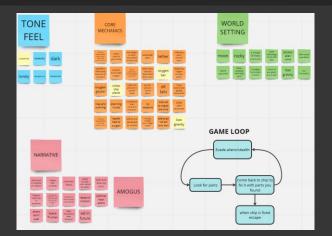
Slides

I found the Game Seed Jamming workshop to be quite engaging, as I am someone who enjoys the process of ideating. It posed an excellent challenge for me because I am a very methodical and slow thinker, where I want to always run through the positives and negatives of each idea before settling on one. I try and construct a new concept from the ground up to make sure everything functions together seamlessly to limit future hiccups that would pose issues. This method of thinking can be limiting. Game Seed Jamming had me throw most of my usual thought process out the window and solely rely on whatever comes into my head at any given moment. This reminded me of how as a child I would not filter my ideas and just keep tacking on new quirks onto whatever I was imagining. While at the time these imaginary things may have made sense, in hindsight they were a tangle of contradictory ideas. However, they formed a basis for what I create nowadays, which really shows that even a mess of an idea can be refined into a workable concept. Perhaps this was the lesson learned from the Game Seed Jamming.

For the homework, our group was unsatisfied with what we had produced the previous day, and we went back to our slides to spruce things up. I designed a logo and redesigned the elevator pitch. We found it challenging to capture the essence of our game seed in the gameplay mockup, despite the second day of work, which may mean the idea was already shaky to begin with.



Moonstranded is a 3rd person platformer, where you play as an astronaut stranded on a foreign moon. Repair your ship by scavenging missing parts. But watch out, aliens roam the area and with limited oxygen at your disposal, you must plan your routes carefully.



As I did not have any Blueprint experience before beginning this project, I focused on the level design aspect of the game idea.

In the beginning, before there was a set player controller, I tested different ramps and how they could be chained together. I found limitations with the currently player controller, which I made clear to the other designers so we could be aware of them in the future.

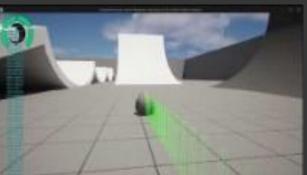
When the player controller was more defined, I began to prototype long sections, where the rolling mechanic was really showed off. These sections used the knowledge I had gained from my previous testing. I knew that the player controller didn't allow for airtime when leaving a ramp, so I placed bounce pads (generally hidden inside the ramp) to emulate how it should feel to have simulated physics.

The long section prototype was very fun to play because the player wants to go faster. I kept this in mind for my later iterations.

Longer flowing section prototype



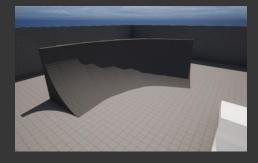
Basic ramp testing and limitations



Initial gym



Corner ramp testing

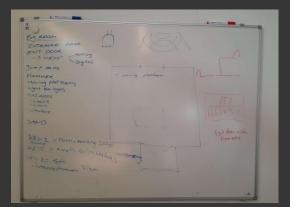


Along with the play controller testing, I helped iterate ideas for movement mechanics and LD ingredients. This was generally a team discussion (mostly DPs); however, I also had my own solo work with pinpointing the narrative.

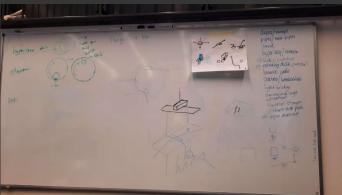
Because the base roll and walk mechanics were already decided on during the game seed phase, the team needed to create LD ingredients. To do that, we needed the narrative groundwork laid out. I began with listing key elements and drawing connections. Nick offered some #feedback, which helped me expand and change my approach. This resulted in me generating some LD ingredients and even the game pillar: Pango is key.

With the narrative groundwork down, the team set out to expand on LD ingredients for walking and rolling. I connected some of ideas from the narrative mind map and we made a list of LD ingredients for the level. We then moved these ideas into a simple sketch of what we should be putting into the demo level prototype.

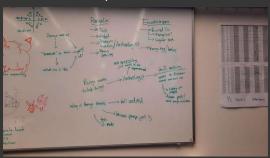
Demo level sketch



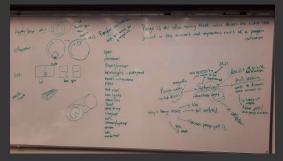
LD ingredients



Initial mind map



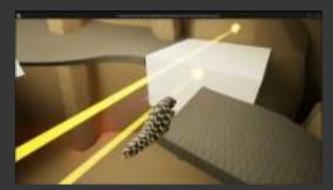
Post feedback mind map



With Week 8 approaching, the level designers shifted towards creating a demo level. The initial idea was to create a gym type level where the player could tackle the ascent to the top from a multitude of directions, each path using a different skill. However, when Finn and I played each other's sections, we realized there was too much happening. Compared to Finn's section, which had 5 routes, mine had 3, and we found this to be a much nicer player experience. The challenges were more linear with more space to breathe so the player wasn't interrupted with decisions during their flowstate.

We iterated on our sections. I focused on adding a little extra length to each route. Finn and I also decided to move the goal of our sections to the far wall, which required a rethink on the routes. Another piece of #feedback I received from Finn was the lack of activity on the floor. This made me add a second method up into the platforming section from the ground and tied the floor in nicely. Unfortunately, due to a mistake I made in Unreal, the scene I was working in got wiped.

I got to work on the remake of my section with the goal of creating something derived from my previous iterations, but distinctly different. I went with more rolling than platforming, which created longer flowing sections like I had made during the character controller testing. I kept some of the components from the previous iteration that got deleted, such as the ramp on the ground, and the laser jump. While I don't think any of my levels have achieved excellence yet, I believe they are moving in the correct direction and I hope to improve them in Block D, especially with feedback from Play Day.







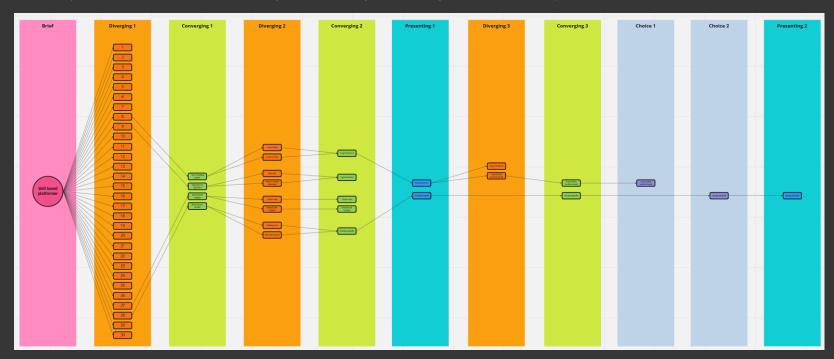
<u>Miro</u>

Initial Game seed presentation

Second game seed presentation

Final game seed presentation

Below is a visual representation of how our team diverged and converged with the game seed iteration phase.



Game seed presentation (Week 5)

<u>Game Seed Presentation Meeting Recording</u> (with timestamp)

Summary of main feedback received

- Slide was clear and effective, displayed a good amount of information.
- Risks and challenges in the project were unclear.
- Pinball physics gathered interest, however also brought up the question of how it would be implemented.
- Non-rolling mechanics were undefined or less impactful than the roll.
- "Kabounce" reference game to investigate.

FPOC meeting

- Frog O'Clock and PangoPin seeds contain about and equal amount of risks, especially metrics wise.
- Frog O'Clock needs animations to really sell movement, a lot of work for animator.
- Frog O'Clock needs to have movement mechanics balanced well, would be a lot of work.
- Find the juice in reference to movement and animation.
- Find the fun in our seed and isolate the core ideas/mechanics.
- PangoPin needs a balance between rolling and walking, find the walking mechanics.

Action points

- Following FPOC meeting, our team held a meeting and switched over to PangoPin seed.
- Prototypes of the roll mechanic and walking mechanics for the pangolin.
- Investigate pinball mechanic and if it is viable.
- Investigate level design to understand its constraints and how they can be addressed.



Final concept presentation (Week 8)

<u>Concept presentation</u> (with timestamp) Lecturer Feedback

Summary of main feedback received

- Polish 3Cs, especially the camera. The camera is dragging down the gameplay.
- Watch the scope: are enemies really needed?
- The combination of walking and rolling is the key to this game, but will be tough design-wise
- Environment is cool, but maybe a little too desolate. Needs some more greenery
- Narrative lost behind worldbuilding

Action points

ILO 5

- Jack was going to look into a custom camera for Block D as he already has experience with one.
- Enemies and attacking will likely go in Block D, as they are not really needed.
- The platforming and the rolling sections need to be fleshed out more. As a level designer, I want to tackle this issue by iterating more with long flowing sections and possibly puzzles that are solved in motion.
- Narrative needs to be solidified, and as someone with an interest in narrative, I can take this upon myself to offer some structure the game world.

