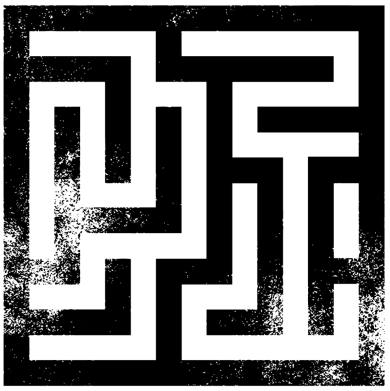


Moirai's Trial

Final Report

June 2021

Daniel Gonçalves [98845]

Diogo Sá [87652]

Diogo Silva [98776]

Martim Norte [87076]

Table of Contents

Playtesting Report **2**
Testers & Play Sessions 2
Automatic Instrumentation 2
Pre-MOJO Feedback 2
Post-MOJO Feedback 4

Development and exploitation plan **6**
Planning and schedule of the main tasks until release 6
Development costs 7
Revenue sources and marketing channels 9

Postmortem **10**

Appendix A. - Unity Analytics Graphics **12**

Appendix B. - Google Form Responses **14**

1 Playtesting Report

1.1 Testers & Play Sessions

For testing, several play sessions were organized, both before and after **Moirai's Trial** MOJO presentation. Pre and Post MOJO sessions had different aims, as will be explained in the following sections, but they all had similar proceedings.

All sessions were conducted via online voice chat on **Discord** using a dedicated server created for this very effort - **Moirai's Trial Community**. All sessions began with a brief explanation of the game's objectives, phases and mechanics, followed by the answering of any doubts. For full transparency, testers were informed that they would be requested to fill a form and that (non-personal) data would be gathered automatically during gameplay. After consenting to having some of their answers analyzed and possibly made public (via this report), several matches were conducted, with each session lasting an **average of one hour** (including the introduction, gameplay and filling of the forms). During gameplay players were asked to both **mute** and **deafen** themselves on Discord (since the game utilizes a Proximity Voice Chat), however, should an unexpected error or crash happen developers were in the voice chat to help with any unforeseen consequences.

During the Pre-MOJO sessions the team relied on the regular **Focus Group** that had been following the project ever since the initial paper prototypes. For the Post-MOJO sessions, however, the team wanted to ensure that the game was played by as many people as possible and as such, volunteers, outside our Focus Group but that still fell within the game's target audience, were gathered.

1.2 Automatic Instrumentation

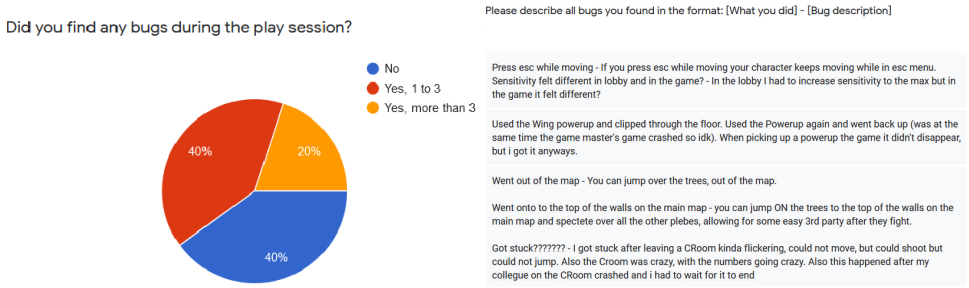
Moirai's Trial employs automatic instrumentation using **Unity Analytics**. These metrics are retrieved at the end of each match and store the data listed below, which is then used on the **Unity Dashboard** to produce graphics of averages and counts: **Match Duration**, **Phase** in which the **game ended**, **Time spent in each Phase**, Number of **Deaths**, Number of **Challenge Rooms found**, Number of **Challenge Rooms solved**, Number of **players who won** and Number of **players who lost**.

1.3 Pre-MOJO Feedback

Two sessions were conducted before MOJO took place - one on **Wednesday, 26th of May**, **2021**, and the second on **Friday, 28th of May 2021**. Each of these sessions had a **different form** since they focused on different aspects of testing. The first one was aimed at finding as many bugs and balancing issues as possible, whilst the second, two days after and with the game being in its near-final state, was more so focused on polish, final balance tuning and the overall experience. Gameplay was also recorded during the Friday session in order to create the Gameplay trailer.

1.3.1 Player Feedback

Starting with the **first session**'s feedback and, as expected, a big majority (60% of players) ended up experiencing at least one bug, with 20% of players experiencing more than 3. None of these issues were overly concerning, but nevertheless they were all addressed before the Friday session, alongside a **major bug** that prevented players from advancing to the game's Phase 3 (rendering the game uncompletable).



Img 1.3.1.1 - Answers and bugs reported on the form

The team also asked players to report any performance issues that might have arised both in terms of lag and frame drops, however, only 40% of players noted any sort of frame drops (with all players reporting that their PCs had “Average Specs.”). Nevertheless the team reduced some of the level’s geometries in order to try to increase the overall smoothness of the game.

In terms of balancing, players were first asked about **the time they had to find and complete challenge rooms** during phase 1. Surprisingly, most players stated that they felt they had enough time, with only 20% saying that there should be more time. It should be stated that, during this play session, players had 20 minutes for phase 1 and, as analytics will reveal in the next session, they very rarely made it this phase. In terms of **projectile damage** all players stated that they felt it was adequate, alongside **player speed**. As for life regen most players agreed that the delay before it started regening was adequate and so was the speed rate at which life came back. In terms of power ups and challenge rooms players stated that the **Math Challenge Room** was too complex and that the **Rapid Fire** powerup wasn't impactful enough. They also stated (outside of the form during discussion) that there should be someplace ingame where all power ups were explained since they felt a lot of confusion on this end.

As for the **second session**, and as aforementioned, the form was focused on validating the balance changes and the final game experience. Unfortunately, players managed to find more bugs than expected, which had to be patched out, but luckily, they were all minor bugs. Performance-wise, however, we noted that now only 25% of players reported frame drops.

Players also reported that the voice chat performed better during session two, after the team had taken some time to tweak the voice packet’s bitrate in order to decrease delay. Overall, players seemed to enjoy the game and the situations it created (50% giving it a 5/5 and 50% giving it a 4/5 enjoyability and willingness to replay it). The game was therefore ready to be presented.

1.3.2 Analytics

Three unique **Unity Analytics Reports** were created in order to combine data from the three main analysis sources the team was focusing on. Firstly **Match Statistics** contains the *average time spent in each phase*, the overall *average match duration* and a *count of how many times the games ended in each phase*. **The team noted that during the first session not a single game advanced past phase 1 meaning there was tweaking to be done there**. During Friday's session however, after some balance changes, discussed below, the game advanced to other phases as intended.

Secondly, there was also the **Challenge Room Statistics** which contained information on how many *challenge rooms were being completed on average*, and *how many were being found*. We noted that these values were very much tied together, indicating that most players who found the challenge rooms would end up waiting for others to come to them and wouldn’t leave until they were complete.

However, the number of challenge rooms completed was shockingly low during the first session, which tied in to the game not advancing past phase 1.

Finally, there was the **Player Statistics** which contained information on how many *players were being killed on average*, *how many players won on average* and *how many players lost on average without dying*. As expected, not many players died keeping the average low, however players only started winning during the second session when the game actually advanced phases with players cooperating to win.

Note that, due to size constraints, the graphs weren't included in the main section, but they are available in the **Appendix A. - Unity Analytics Graphs**.

1.3.3 Changes Made

Taking into account both analytics and the feedback received, most balancing changes occured between the first and second session during which **the team tweaked the maximum time of phase 1, decreasing it to a total of 15 minutes**. Initially, we thought we should increase the time, but looking at how players played and the fact that analytics showed that not many rooms were being found, it indicated that players were way too complacent and didn't feel enough urgency to meet with one another and cooperate. As such the team settled on reducing rather than increasing the time and, as validated in the second session, players managed to reach phase 2 with more ease as there was a bigger sense of pressure. A lot of bug fixes and performance fixes were also made.

1.4 Post-MOJO Feedback

During MOJO and the days that followed, the team published the game's itch.io page and community Discord link on several avenues. This was necessary as, for each session, a minimum of 8 players was necessary for the game to be played in its intended state. Afterwards a **When2Meet** was created in order to organize several play sessions with different volunteers. In the end, 4 different sessions were organized - **Saturday, 5th of June** ; **Wednesday, 9th of June** ; **Monday, 14th of June** ; **Thursday, 17th of June**. All of these sessions had a **single feedback form** to be filled with questions aimed at the player's experience and what they thought of the overall game. The Discord server also contained a channel for suggestions and further bug fixes.

1.4.1 Player Feedback

The form given to players during these sessions contained questions, once again, about bugs and performance (since now there was a wider range of players, meaning these were still pertinent). Evidently more bugs were found, the nastiest one pertaining to **Photon disconnect players due to connectivity and packet buffer issues**. Surprisingly (and in contrast with the previous play sessions with the Focus Group) **over 50% of players reported they found frame issues**, meaning the game still requires some tuning and perhaps a graphical fidelity settings menu to counteract this problem.

Alongside the technical questions, there were others directed at the overall game experience. Starting off **power-ups**, the team was pleased that over 80% of players reported they enjoyed them and, when stating their favourite there was a wide variety of power-ups meaning they managed to cater to different player types as intended. The **maze**, however, was a target of a lot of criticism. Players said they felt too lost and that it was **too big** and hard to navigate. A lot of players requested that the map be completed as they moved around the maze since the map pieces given by solving challenge rooms didn't feel like a big enough help to counteract this. In terms of **challenge rooms** there was also a mixed bag. Players stated that there should be some explanation as to what they're supposed

to in each as, when first encountering them, they felt too lost. Additionally, unanimously, players reported the **Math Challenge Room as being the worst** due to its complexity, repetitiveness and potential for abuse. A lot of players also reported there should be much more **visual feedback** and **polish** both in terms of the game's phases changing, power-ups usage, amongst others.

The team was pleased that players reported having had at least one interesting social interaction, ranging from ambushes, to betrayals and impromptu cooperation, meaning the game succeeded in that end. Additionally, **100% of players stated that Moirai's Trial offered a completely unique experience**, unlike anything else they had ever played.

Note that, due to size constraints, the graphs and written responses weren't included in the main section, but they are available in the **Appendix B. - Feedback Responses**.

1.4.2 Analytics

For analytics the exact same **Unity Analytics Reports** explained in **section 1.3.2** were used. So once again, starting with **Match Statistics** we noted that a **lot of matches still ended during the first phase**. This was due to players being too bloodthirsty, causing the game to end prematurely due to player deaths. This is a design flaw due in part to the number of players. As the game was initially designed for over 10 players, the limit for how many of them could be killed during this phase was much higher rendering this a non-issue. As the game had to be scoped down to 8 players to ease with testing (and due to network limitations) this core flaw was created. For a full game release, the game would again be scoped up for more players. Nevertheless the game still entered other phases with some frequency.

Secondly, there was also the **Challenge Room Statistics**. It was clear that the number of challenge rooms found and completed were very much tied together (as was to be expected), however, the number of rooms found was always slightly larger than the number of rooms completed, which meant players were actually moving away from uncompleted rooms, probably to move towards others which might have players nearby. This may also indicate that waiting for players to show up might be a more tedious part of the game, requiring some tweaking (probably in terms of map size and challenge room proximity, which ties in to complaints about map size and hardness to navigate stated in the form).

Finally, there was the **Player Statistics**. Player deaths continued to be higher than expected (as aforementioned). Interestingly, it was rare for a player to lose without being killed, meaning that even when games reached Phase 3, most players got killed before the winners entered the final portal.

Note that, due to size constraints, the graphs weren't included in the main section, but they are available in the **Appendix A. - Unity Analytics Graphs**.

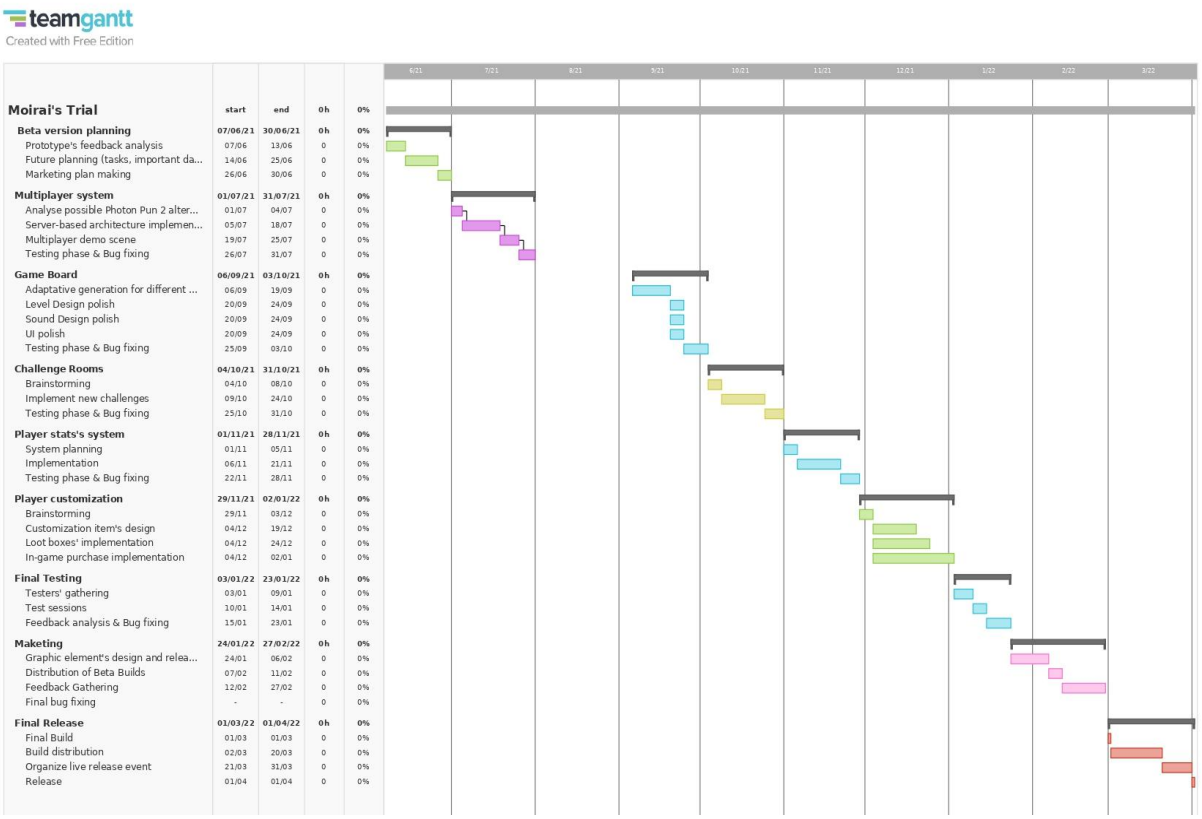
1.4.3 Changes Made

The biggest change made was a bug fix done to improve net stability and prevent the disconnections that were reported in the earlier sessions. However, the team received a lot of feedback and suggestions that, if the project were to be continued, would be properly implemented, notably with **balance tweaks to the Math Challenge Room** (reducing its complexity), **Maze Navigation and size** (improving the challenge room spawn, avenues for players to meet up, adding landmarks and considering a minimap, as well as adjusting the size of the generated map to the number of players to make a more balanced experience) and **UI feedback** (adding more visual feedback for power usage and phase advancements), as well as continuing to improve **performance** and **quality of life**.

2 Development and exploitation plan

2.1 Planning and schedule of the main tasks until release

Whilst the game presented already showcases a very complete slice of the experience intended for **Moirai's Trial**, the game still requires a lot of work before it could be considered a viable commercial product. Estimating a team size of 4 developers and at least 1 artist (during development, with the possibility of adding an additional artist near the end of development), the plan which spans from **June 2021 to March 2022**, as showcased below, was elaborated.



Moirai's Trial	start	end	0h	0%
Beta version planning	07/06/21	30/06/21	0h	0%
Prototype's feedback analysis	07/06	13/06	0	0%
Future planning (tasks, important da...	14/06	25/06	0	0%
Marketing plan making	26/06	30/06	0	0%
Multiplayer system	01/07/21	31/07/21	0h	0%
Analyse possible Photon Pun 2 alter...	01/07	04/07	0	0%
Server-based architecture implemen...	05/07	18/07	0	0%
Multiplayer demo scene	19/07	25/07	0	0%
Testing phase & Bug fixing	26/07	31/07	0	0%
Game Board	06/09/21	03/10/21	0h	0%
Adaptative generation for different ...	06/09	19/09	0	0%
Level Design polish	20/09	24/09	0	0%
Sound Design polish	20/09	24/09	0	0%
UI polish	20/09	24/09	0	0%
Testing phase & Bug fixing	25/09	03/10	0	0%
Challenge Rooms	04/10/21	31/10/21	0h	0%
Brainstorming	04/10	08/10	0	0%
Implement new challenges	09/10	24/10	0	0%
Testing phase & Bug fixing	25/10	31/10	0	0%
Player stats's system	01/11/21	28/11/21	0h	0%
System planning	01/11	05/11	0	0%
Implementation	06/11	21/11	0	0%
Testing phase & Bug fixing	22/11	28/11	0	0%
Player customization	29/11/21	02/01/22	0h	0%
Brainstorming	29/11	03/12	0	0%
Customization item's design	04/12	19/12	0	0%
Loot boxes' implementation	04/12	24/12	0	0%
In-game purchase implementation	04/12	02/01	0	0%
Final Testing	03/01/22	23/01/22	0h	0%
Testers' gathering	03/01	09/01	0	0%
Test sessions	10/01	14/01	0	0%
Feedback analysis & Bug fixing	15/01	23/01	0	0%
Maketing	24/01/22	27/02/22	0h	0%
Graphic element's design and relea...	24/01	06/02	0	0%
Distribution of Beta Builds	07/02	11/02	0	0%
Feedback Gathering	12/02	27/02	0	0%
Final bug fixing	-	-	0	0%
Final Release	01/03/22	01/04/22	0h	0%
Final Build	01/03	01/03	0	0%
Build distribution	02/03	20/03	0	0%
Organize live release event	21/03	31/03	0	0%
Release	01/04	01/04	0	0%

Img 2.1.1 - Provisory development plan from the current version up until release

Development has been divided into **9 main phases** which span between **one and one and a half months** (with some obvious leeway). Starting with the **Beta Version Planning**, the team intends and has indeed been spending the month of June 2021 analyzing all feedback provided from the game's currently available alpha, provided via several *play sessions* that have been organized and performed. During this phase the team will also be meeting at the end of the month to plan how the game should be marketed and what features need to be polished, or reworked, besides the ones that have already been decided upon from the preemptive testing the team has done.

Afterwards, during July 2021, the entire team will be focusing on reworking the entire multiplayer system, swapping over from the free **PhotonPun 2** solution into Unity's new **Multiplayer Networking** (https://docs-multiplayer.unity3d.com/) framework. Whilst Photon is fairly extensive and allowed us to quickly (although aggravatingly) stitch together our multiplayer system, we felt it wasn't robust

enough, and had underlying problems for larger-scale games (due to packet limitation and frequent disconnects). As such, the team has chosen to transition to **MLAPI** with dedicated servers. After this task the team will be taking a month to rest and work on smaller bug fixes rather than full system improvements.

Coming back from this rest, the team will then, during September 2021, focus on polishing key aspects of the game's maze. Creating new rooms, more variety, improving certain UI aspects (as pointed out by feedback), adding Moirai's voice lines and polishing the overall sound, replacing the free assets used for better quality, commissioned ones. Similarly, during October 2021 new challenge rooms will be added to increase the game's depth.

From November 2021 to January 2022, the team will be working in a much needed Player progression system, adding customization options and other features to keep the players engaged and playing **Moirai's Trial** for as long as possible. It is also at this point that revenue options will be added to the game, via the customization system through an in-game cosmetics shop. Afterwards the team will be performing a month of testing and bug fixing, during the rest of January 2022, and strengthening the marketing push which should slowly begin at around Q4 of 2021.

Post launch the game would then have to be supported with a constant influx of new cosmetics, challenge room content and perhaps some form of alternative arcade-style game modes which would create variants on the game's core gameplay loop. Additionally, ports to consoles would also be something the team would work towards post launch.

It should be noted that the team will opt for a more *Agile-SCRUM* development, holding a weekly meeting every wednesday in order for everyone to know what everyone else is working on and what tasks are being completed. This will replace the current system of a simple *Kanban* board that was pseudo-forced due to how quickly the alpha had to be put together. Up until now, the team had been using ***Trello*** for task management, but will be swapping out to ***Jira*** which offers a more robust organization control for longer-term projects. Additionally, the team will be working **daily shifts from 10am to 6pm**, excluding weekends and will be granted **2 weeks vacation during christmas and new year's**.

2.2 Development costs

Firstly, when discussing development costs, the entire team of developers and artists will have to be fully maintained and supported. Taking into account Portuguese Salaries, that there are four full-stack developers (Avg. Yearly Pay of €14,000, taking into account their experience - https://www.payscale.com/research/PT/Job=Software_Engineer/Salary), one 3D artist (Avg. Yearly Pay of €15,341 - https://www.payscale.com/research/PT/Job=3D_Artist/Hourly_Rate) and the fact that the game is expected to have a ~1-year development cycle it is expected that the game will cost **€56,015** salary-wise up-until launch.

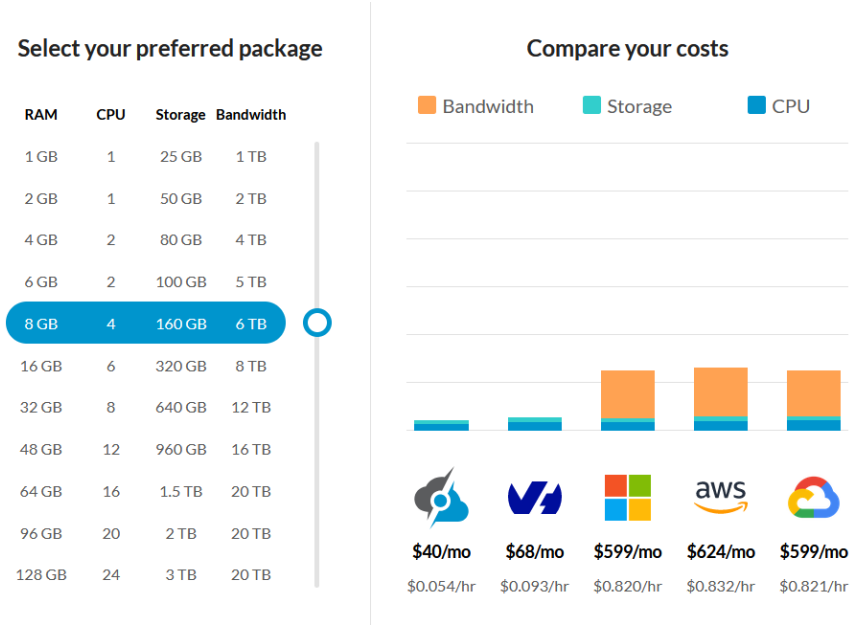
Additionally, post development at least one more 3D artist will need to be hired in order to fuel the cosmetic shop that the game's post-launch revenue relies on, and as such it is expected that this yearly cost will get a bump up totaling **€71,356**.

Besides the core team of development, the game will also require new original music and sounds which will have to be commissioned. The team discussed adding a **sound engineer** or **sound artist** to the team, but as the game relies very little on actual music, a consensus was reached that it would be more cost-efficient to rely on commissions. After some research was done, the team estimated the

music and sound costs to fall at around **€3,000** to **€7,500** (https://theartfulcomposer.com/commissioning-music-cost-rates-fees/).

The game will also have to be meticulously tested. Whilst up until now the team has relied solemnly on friends for this effort, for more reliable testers the team has considered contacting QA testers for monthly sessions. These sessions would be done on a single work day (from 10am to 6pm) and would need to count with 16 individual testers (in order to maximize the number of matches played and diversity of players). Taking into account the average hourly pay of testers and assuming they could be hired on an hourly basis (https://www.payscale.com/research/US/Job=Game_Tester/Hourly_Rate) the estimated cost would be of about **€1,566.03** per session, of which there would be six, totaling at **€9,396.18**. Final testing, during which the game would be in a more presentable and polished state, could be done via an Open Beta, advertised on social channels and with the contribution of content creators. This option wasn't considered for earlier testing since the team felt that opening the game sooner (i.e during an Open Alpha stage), could cause a negative impression due to lack of polish and bugs.

Finally, there is the cost of hosting dedicated servers. The team expects to have a total of **11 servers** - US Central, US East, US West, South America, Europe West, Europe East, India/Middle East, Korea, South East Asia, East Asia and Australia - in order to ensure a worldwide stable launch of the game. Analyzing several server providers and looking at the image below (taken from https://blog.servermania.com/gcp-vs-aws/), we should expect to have an average monthly cost of around **€550** per server, per month, totaling at **€6,050 per month**. Do note that, during development, a single server in Europe would suffice.



Img 2.2.1 - Average costs of the most famous server providers

This then gives us a **Total Yearly Cost of development of around €77,011.18** (salaries + servers + music + testing + server) assuming development takes only a year as planned, and a **Total Yearly Cost of €143,956** (salaries + servers) **Post Launch**.

2.3 Revenue sources and marketing channels

In terms of revenue, and as a multiplayer-only game that requires a fairly high number of players, the team has decided to go with the **free-to-play** model with **in-game purchases**. After considering selling the game for 5.99€, 9.99€ and 19.99€, the team reached the conclusion that for the game to work it needs a healthy and stable community of players, and as such, the game would benefit from allowing anyone to start playing straight away with their friends and then purchasing additional cosmetic content, rather than being put off by an initial price of admission. As such, the game will feature a **cosmetics shop** for the players to customize their own hero. In-game currency will be awarded for players who win each match, but players may choose to purchase currency with real money. To incentivize purchase, the shop's items will not be static, with the items showcased changing every few days (with players not knowing which items will be available for purchase next, making them come back into the game to checkout what's in the shop). As new post-launch content is added, so will a **Battle-Pass** style system, tied in to the player's level progression. This Battle-Pass, sold at **5.99€** will feature exclusive cosmetics that will not be able to be obtained from the shop. This also serves to keep players coming back to the game as they'll only have a limited amount of time to complete the Battle-Pass before it is gone and replaced with a new one.

For additional revenue to **support the team** during development, and to **help promote the game**, the team will seek out a publisher. After some initial research the team has found two apt publishers - **Humble Games** (https://www.humblegames.com/) and **Devolver Digital** (https://www.devolverdigital.com/). Both these publishers are well known indie publishers who have led many games to success. Humble Games has the benefit of owning their own digital store which may help with the game's reach, however Devolver does possess a wider reach of influencers and resources. Going with a publisher will not only ease the anxiety of development, giving the team a safety net and someone watching the game's back and giving it a much needed marketing boost and reach, as well as help with potential ports.

The game will be released on the major PC digital resellers - **Steam**, **Epic Games Store** and **Humble Bundle**. Later down the line console ports - **PS5, XBox Series X|S** and **Nintendo Switch** - will also be developed. Whilst they haven't been thoroughly planned yet (as development is focused currently on the PC platform), the team hopes to launch these versions between Q4 2022 and Q1 2023, with the game on PC being released in Q1 2022.

Regardless of publisher, the game will be advertised via **Twitter**, **Youtube** and **Twitch** mainly. During **pre-launch**, Twitter and Youtube will serve to post trailers and snippets of gameplay in order to bootstrap the game's marketing campaign. When closer to launch the team, hopefully with the help of a publisher, will reach out well known youtubers and streamers, focusing more in the indie-space but without shying away from approaching more general gameplay content creators, in order to showcase the game on their channels and generate most interest. **Post launch** Twitter will serve as a platform for announcing updates, new cosmetics, incoming battle-pass sneak previews and hosting community contests to keep engaging with the community. Youtuber and Streamer tournaments will also be organized.

3 Postmortem

Starting at the top, the first activity that represented a major milestone for the project was the initial brainstorming session. For these sessions, and as beginners to the whole multiplayer game business, the team could have been more cautious about the road that we were planning, in order to better adjust the amount of work to the time span that was provided. Apart from this scope delimitation problem, the process of getting new ideas and focusing on concrete and meaningful connections between them ended up being very well succeeded and this is proven by the fact that the game ended up not very far from the initial concept. If it was intended for us to point out the major cause of this success, it would definitely be the fact that we started with necessities and went in the direction of getting solutions and comparing them. This means that instead of finding interesting features and then trying to merge them together with a broken and basic context, the possible connection of a new feature with the predefined flow of the game was one of the main exclusion criteria.

In regards to the development itself, and this being the interval between the first game pitch and the MOJO, the course of action was not perfect but it always had a major goal: Each member of the team would get to develop the features that he was most excited and/or had most experience in. This proved to make the workflow better than it would be if the traditional split work path was taken because an enjoyable evening of work can avoid boredom and confusion more than a forced one.

Dealing with an art student was a very smooth process and with no bumps at all. After an initial reunion where the team explained the whole concept of the game to the artist, a second one was scheduled and planned to be the one in which the team would provide the artist with the specific assets that were needed (logo, UI elements, etc.). During this process, and even though the artist was provided with a general look of what was intended in terms of the artistic feel of the game, full freedom was given so that the artist would end up with a work in which she would be proud of and she would also have fun during the whole process. This made the final result and communication flow much better and relaxed.

Attending the development process, the communication between the team was not always perfect, the main cause being the fact that everyone had other courses and different predefined ways of work and organization. But once the team got themselves on the same page, the work ended up flowing much better and the game ended up being a balanced mix of each team member's work. The only problem with this mix of different people's implementation is the fact that each developer had his own programming conventions, and even though the code was able to be understood by each member, a set of common and predefined rules and conventions would make it a lot more readable by external audiences.

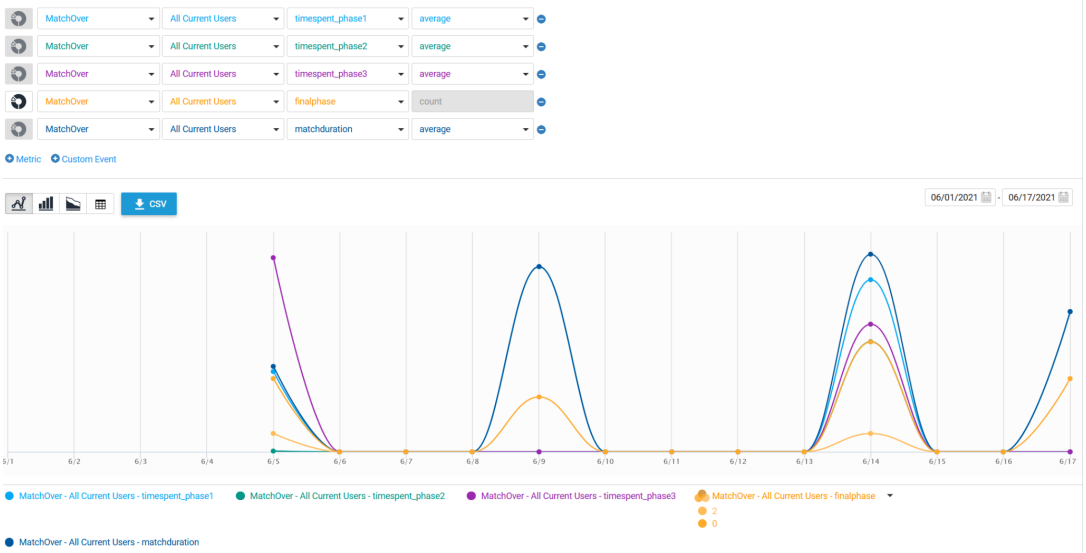
Alongside the development process, it was also told that the team should make a set of documents that intended to report the work and the development of the project. Even though these documents (mainly the Design Document) ended up being quite useful for this project and also for future ones, they represent a large amount of work and time that, if spent with the actual project development, would avoid some problems of increased workload down the road.

Reaching the end of the development, the MOJO preparation was pretty smooth and quick because every developer had full understanding of the game and of the whole process behind it. Some prepared the speech to be given in the initial part of the presentation, some just improvised, but it ended up being a fun and relaxing presentation for everyone.

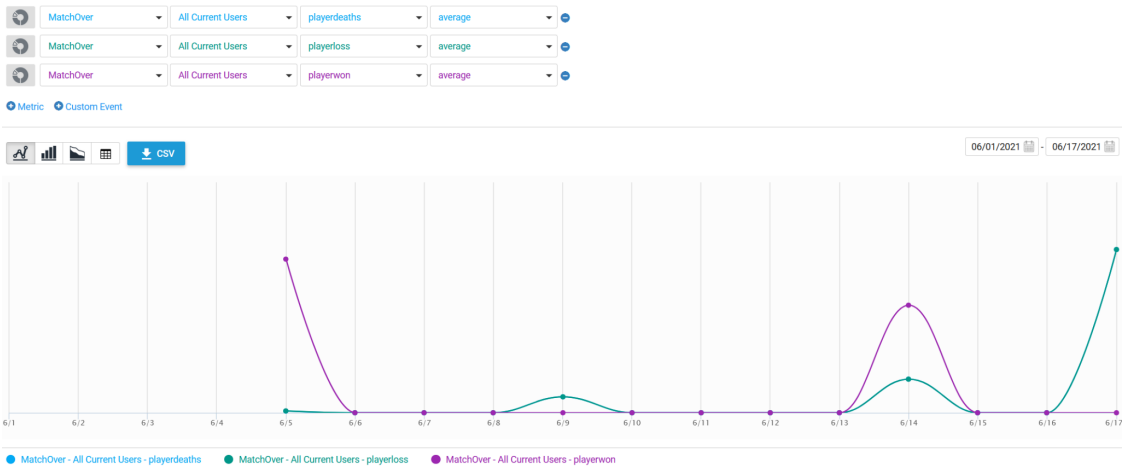
After MOJO it was all about playtesting, bug finding and bug fixing, as it would be expected. The main problem found was related to bandwidth and the amount of multiplayer messages exchanged between players. This would eventually make the Master Client be disconnected and consequently cause the game to freeze in its current status for all players. As said before, this is related to the fact that a P2P and free solution was used for this project, something that would need to be replaced by a more structured and server based solution, in order to even sustain multiple lobbies at the same time. Something that was a really good realization for the team was the fact that the main mechanics of the game did not seem to give any problems, which suggests that they were well implemented.

Looking back, and after all realizations made about the whole process of development, we concluded that, considering the time constraints, one member of the team should have been fully dedicated to the multiplayer system, and in order to achieve that a larger team would have been a necessity.

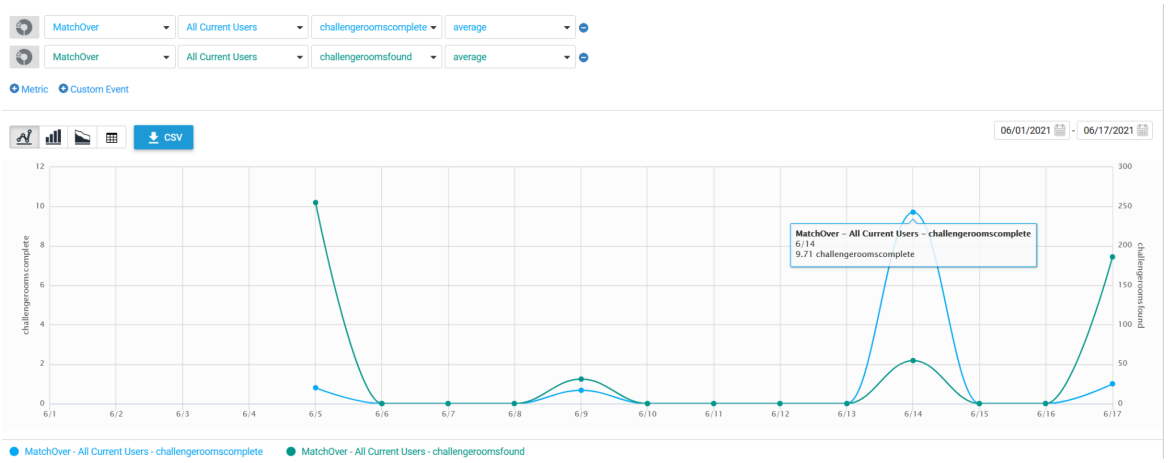
Appendix A. - Unity Analytics Graphics



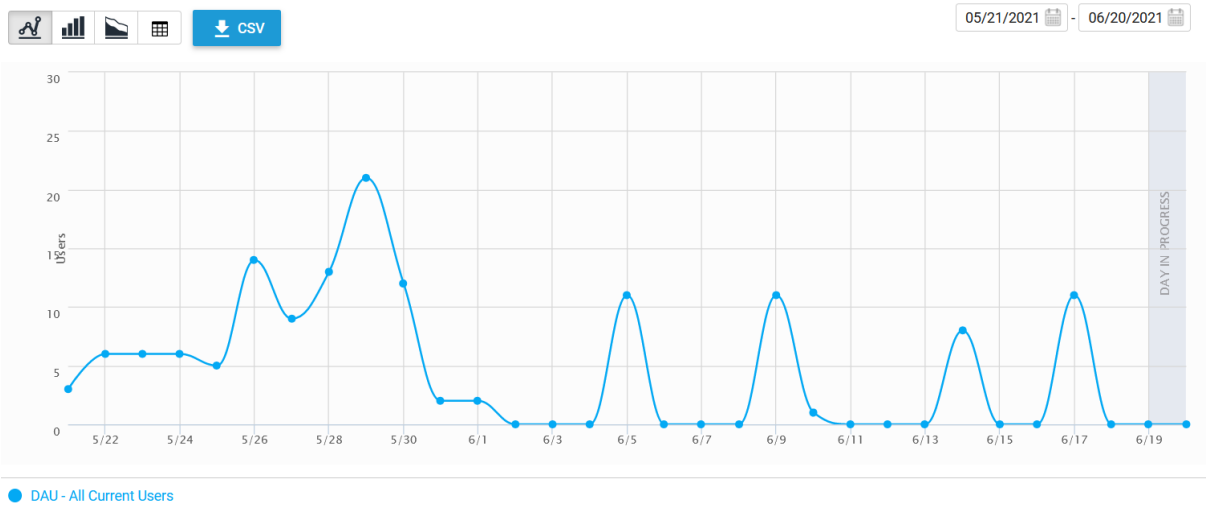
Img A.1 - Match Stats Analytics Report going from the 1st of June up until the 17th of June 2021



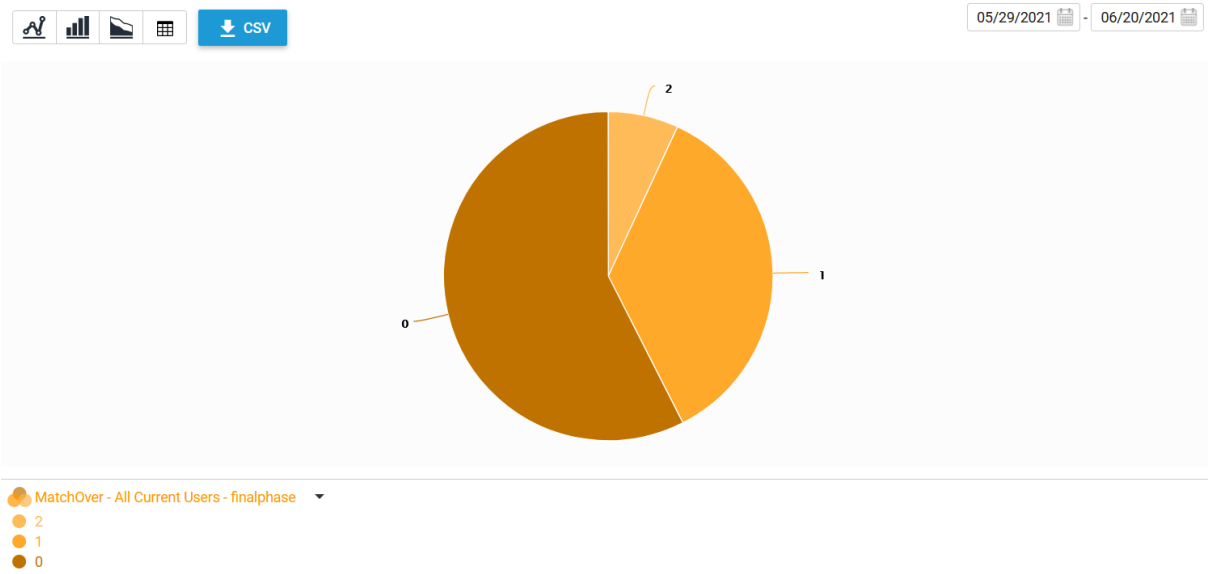
Img A.2 - Player Stats Analytics Report going from the 1st of June up until the 17th of June 2021



Img A.3 - Challenge Room Stats Analytics Report going from the 1st of June up until the 17th of June 2021



Img A.4 - Number of users that opened the game per day. From March 22nd until the 19th of June, 2021

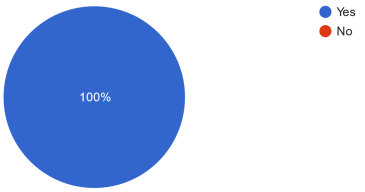


Img A.5 - Percentage of time matches ended on each phase from March 29th until the 20th of June, 2021. Note that most matches ended during phase 1 (0), indicating that the game is ending early, way too many times.

Appendix B. - Google Form Responses

Data retrieved (such as graphs generated or responses given) may be publicly divulged, although all anonimously. Do you consent?

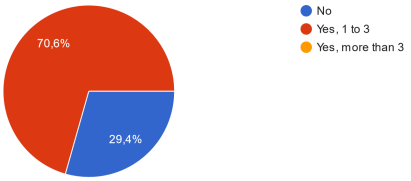
17 respostas



Img B.1 - Consent given by players to having their answers shared

Did you find any bugs during play?

17 respostas



Img B.2 - Number of bugs players found

Please describe all bugs you found in the format: [What you did] - [Bug description]

10 respostas

Na sala/quest com várias portas, ouvi 50 canhões(mais do que havia players), não sei se foi relacionado comigo ou com outros.

The voice stopped working, when I was talking to someone for some reason it sometimes stopped working.

Master went down, so game ended.

They are my secret

Finished Challenge - Didn't get out of the challenge room
After spawning - Sensitivity automatically decreases

My game crashed a minute in. I don't know why my computer and connection seemed fine. I alt tabed to mute discord and Windows hit me with that "Moirai's Trial is not responding"

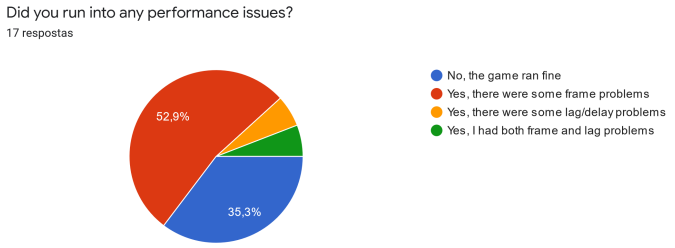
quando morri e fui para a waiting room, eu tinha sido morta e basicamente continuei a disparar na waiting room continuamente, sem eu estar a fazer nada

when climbing the stairs it loocked like that i ran into a wall

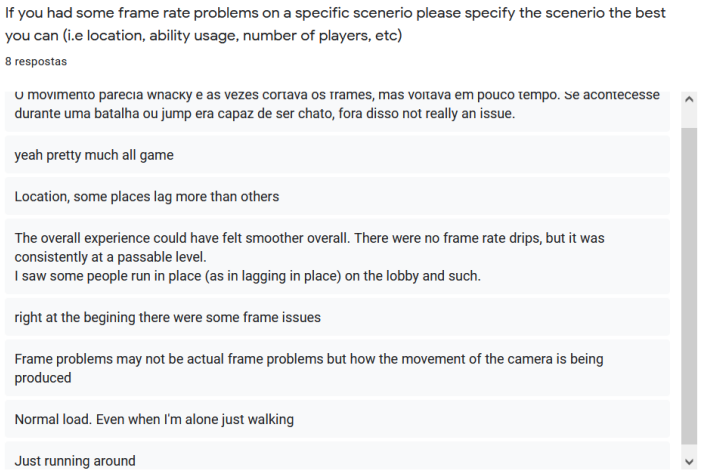
Desync

Disconnected and was in the game apparently in two different places.

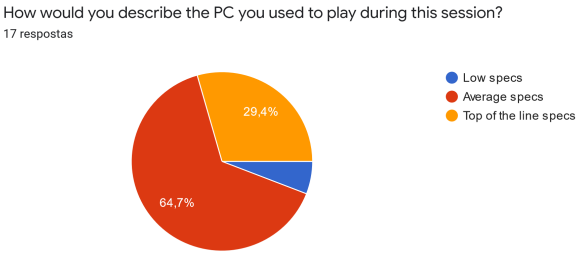
Img B.3 - Bug reports written by the players



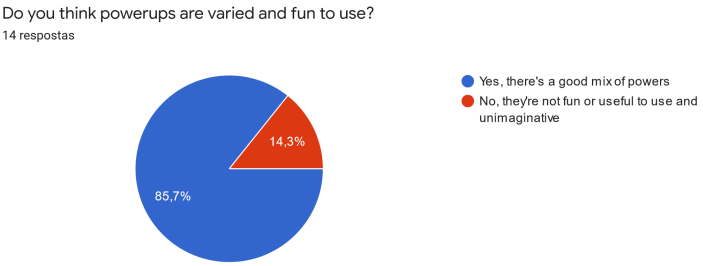
Img B.4 - Performance issue types as reported by the players



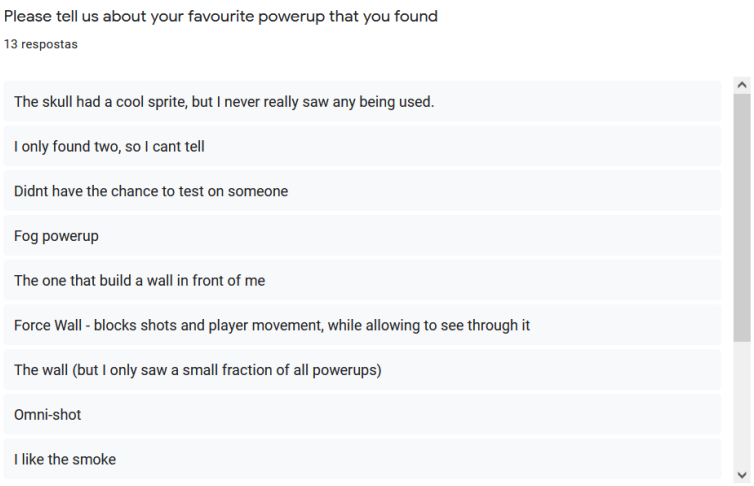
Img B.5 - What the players were doing when they experienced the performance issues



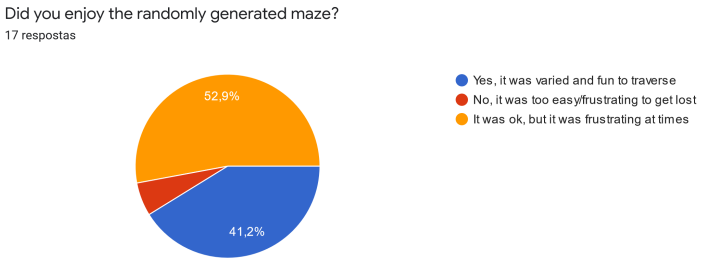
Img B.6 - PC Specs of the participants



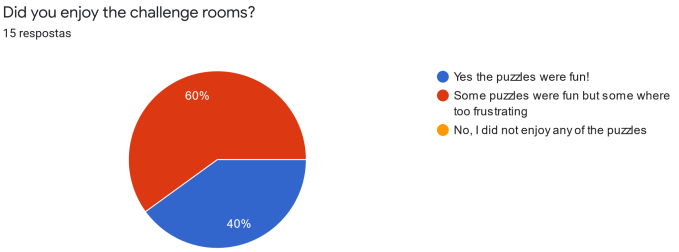
Img B.7 - Players impression on the power-ups. As can be seen, the majority enjoyed the diversity of the power-ups



Img B.8 - Player's favourite power-ups. As can be seen there is a wide variety of power-ups chosen to be favourites, but even still the Smoke and Force Wall seem to be the most liked ones.



Img B.9 - Player impressions of the maze. As can be seen there are some underlying issues with it as over 50% reported it being frustrating with a sliver of players reporting it was too easy to get lost.



Img B.10 - Player impressions on the challenge rooms. A majority agreed that whilst some puzzles were fun and engaging, some were too frustrating and should be changed.

Please tell us what your least favourite challenge room was and why

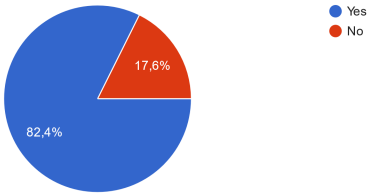
9 respostas

- Só vi 2, o das plataformas com símbolos e o das portas, o das portas foi mais chato porque era menos óbvio.
- Only did one challenge room it envolved math so unfortunately didnt like it
- Math challenges, we tried to do them by head.. wasted a lot of time
- The math challenge room, because i think it was a little confusing.
- Math with symbols. Usually involves grabbing a pen/paper or a calculator
- I didn't reach any challenge room.
- -
- não fiz mais nenhuma
- The equations I just walked randomly through the doors and got it

Img B.11 - The player's least favourite challenge rooms. As can be seen the Math Challenge Room is the most disliked one and requires some tweaks to reduce its complexity.

Did you have any cool social interaction during a match? (e.g a teamup, ambush or betrayal)

17 respostas



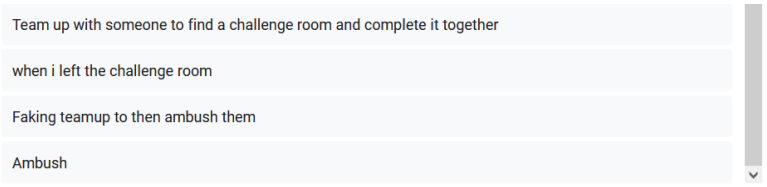
Img B.12 - Percentage of players that experienced unique social interactions. A wide majority (over 80%) reported having experienced cool social interactions.

If you answered Yes to the last question, please tell us a bit more about that social interaction

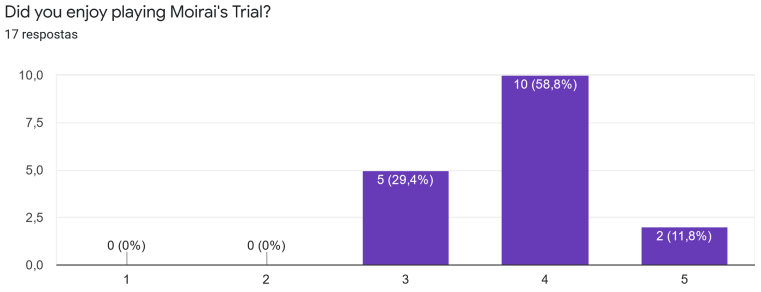
14 respostas

- i got ambushed as soon as i got out of the challenge room
- We interacted a bit to solve the puzzles. Also, hearing the other guy's teacher was cool, she was so proud of herself xD "Para terminar o curso, que tem sido ótimo..."
- I did the challenge room which envolved math and so we needed interaction to make it through and after that there where two people screaming "DIE!!"
- Cooperation with others was nice
- Team up, to win challenge rooms.
- B E T R A Y A L
- I said hello to a group of two players, they answered back but immediately OHKO'd me :'-)
- There was a good betrayal in one game when reaching the final portal and finding out only 2 of the 3 player group could proceed

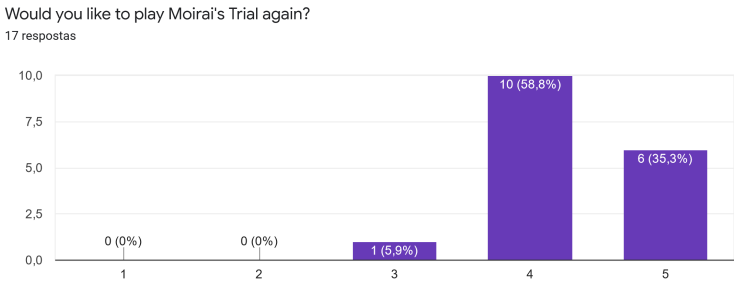
Img B.13 - Some of the reported social interactions that the players experienced



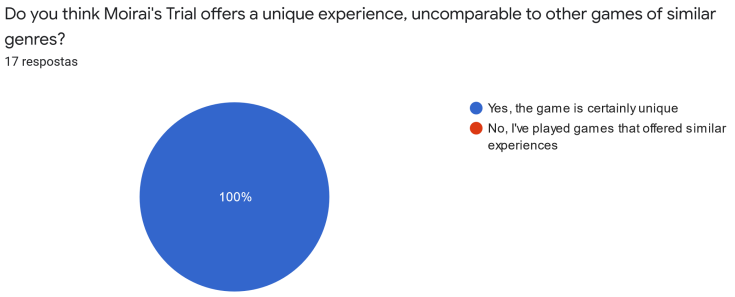
Img B.14 - Some more reported social interactions that the players experienced



Img B.15 - Player's overall enjoyment of the game



Img B.16 - Player's willingness to keep playing the game



Img B.17 - Player's opinion on the uniqueness of the experience given by Moirai's Trial.

Was there any specific thing about the game that you would change or add?

14 respostas

Real feedback on power ups when they are used. The game should have more instructions, for example, CSGO has "The bomb has been planted." audio, so maybe have some audio instructions mid game to guide people? The challenges definitely need more info. Maybe have a respawn on phase 1 or part of phase 1 so that the game doesn't end because we all killed each other or died. The movement is whacky and makes it hard to complete jumps, specially on the trampoline/fire room.

I just would like the math sometimes to be easier and tell people to learn the greek alphabet before.

Accept different range of the ammount of people, depending on exactly 8 players is too much. Dashes also felt a bit too short, maybe just a bit longer

I think i would add more challenge rooms because they can be super hard and far to find.

Better mobility, both mechanically and visually

I think that sometimes you have to just wait at challenge rooms for a long time.
I'd love to see the movement system get an upgrade with things like wall jump/run/climb to make traversing the maze more fun

A little bit more movement speed, maybe some frame issues fixes on some places

I dont think so

Don't put invisible walls over the maze walls. If I can get up there, I want to walk on top.
The generations should be less random, both mazes felt a bit too confusing.
The platforms with spring-things should have the bouncy part on the whole platform. Like this it's very misleading.

- The maze could be smaller. I spent a lot of time trying to find players and challenge rooms.
- Provide more info about the power-ups while in-game (add the titles of the powers, at least)
- The transitions between phases could be announced with a sort of alarm (at least there were times where i didn't notice that I was already in the next phase)

melhoraria o ângulo da câmara, todos os personagens parecem minúsculos

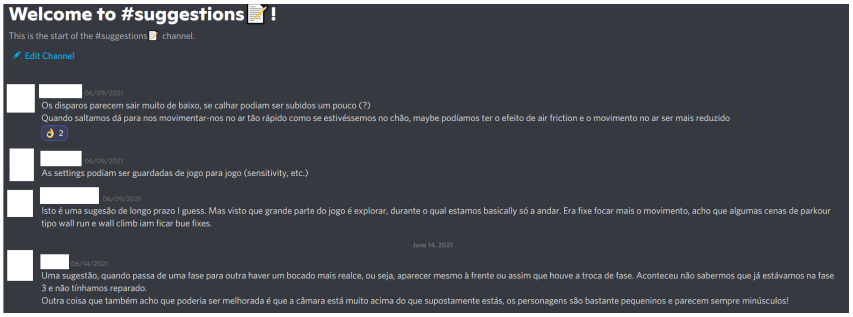
Maze size mostly

Can't tell much from what I've played, but maybe randomly put some players together. Maybe spawn some

Can't tell much from what I've played, but maybe randomly put some players together. Maybe spawn some in pairs or a trio (perhaps incentivizing early pvp)

Movement feel really clunky, something needs to be changed on dashing

Img B.19 - Player suggestions made on the form



Img B.18 - Suggestions made by players on the Discord server