Projectplan
Gameplay and immersiveness

TweeKracht

Oirschot

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Version

Version	Date	Author(s)	Changes	Status
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Distribution

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0.3	15-09-2023	Anke Bardie
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1. Assignment

1.1 Context

TweeKracht has been developing their own games to analyze a person's character, behavior and to find the strengths of a person for a while now. The goal of the games is to grow the resistance, autonomy and connection with themselves and others and to find directions to grow.

They use their games for both individual people and in business context. The games are used for career development, stress coaching but also preventing bore- and burn out. They are also used for teambuilding and team forming and training in businesses.

The goal of the game is for players to find their core strengths, so they can focus on these strengths and feel their energy go up. These core strengths also connect into their other games.

The physical game is played with 2 stacks of cards, they all contain different answers to the question "what gives you more energy?" Which eventually leads to one conclusion about you. The stacks are for your hard (rational) side and your soft (emotional) side, and with results for both of these sides you get your result.

1.2 Goal of the project

From the beginning, TweeKracht's focus has been physical games because these help creating a personal connection with the player. The physical games have a larger impact, and the overall experience of the game is more immersive*.

Now they want to explore digital products to make the games more accessible for people that don't have access to coaches or trainers. There already are a few prototypes and MVPs made of different games through the years. The overall experience of the games is slowly improving and they're slowly coming to a point where they have a finished product to release.

They want to digitize their game because TweeKracht thinks young people are more likely to engage with an app than a physical game and because the physical game relies on coaches being available, which isn't always available. This digital product is also to be used in workshops as part of a teaching package.

The current prototype uses videos, but it has been indicated that using just videos can be boring to the player; players often want to skip them, and players have said they break the flow of the game.

This specific application will be used as an accessible entry point into the methodology of TweeKracht. The teacher will gain an access code that their students will use to gain access to the application.

The goal of the project is to take the digital prototype, investigate why the effect isn't present yet in the digital game but IS present in the physical game. The desired effect is that the player is immersed into the game to such a degree that the player plays the game with their feeling, and not their mind, and get a more accurate result.

From previous observations, as well as previous interns working on this project TweeKracht has indicated that the results from the digital prototype aren't accurate, and that players are just randomly clicking answers. The results of the game are supposed to be about you and tell you what should give you more energy. Since focusing on your results should bring you more energy, using these inaccurate results for further lessons and focusing on them will decrease the player's energy. This is the foundation of the research behind the Energy Game.

These inaccurate results are not present in the physical game. When playing the physical game, I observed people not only being shocked at how accurate their results were, but also how engaged they were in the game. This is not present in the digital prototype.

I also observed that in the digital prototype people have issues with getting into the ideal world.

The results of this research will be used to improve the current prototype in Unity.

TweeKracht indicates that the biggest problem with the current prototype is that players are playing impatiently and just clicking answers. The current version of the application uses videos to explain the rules and display results, but players have indicated that this is too boring and breaks gameplay flow.

I will rapidly iterate on a variety of concepts to see what does improve user engagement and accuracy. This will mean that at the end of the internship, I will not only have an improved prototype, but also a variety of concepts that didn't make it in the final build.

The assignment is about getting to know the userbase and analyzing how to trigger the desired reaction while keeping the game engaging, as well as validating a specific feature with a focus group who hasn't tested the previous product, so I will really focus on that, going in depth on user experience and testing.

*Immersive meaning the player plays the game with their feelings, and not with their mind

1.3 Boundaries and preconditions

To the project belongs:	To the project does not belong:
1 Research into why the effect is present when playing the physical game and not with the digital game	1 Implement all ideas of previous interns
2 Research into what can boost the effect in the digital prototype	2 Implementing technical aspects found from previous interns (the focus of my internship is player engagement)
3 Take ideas from previous interns into account	3
4 Improve the prototype	4
5 Testing the new prototype	5

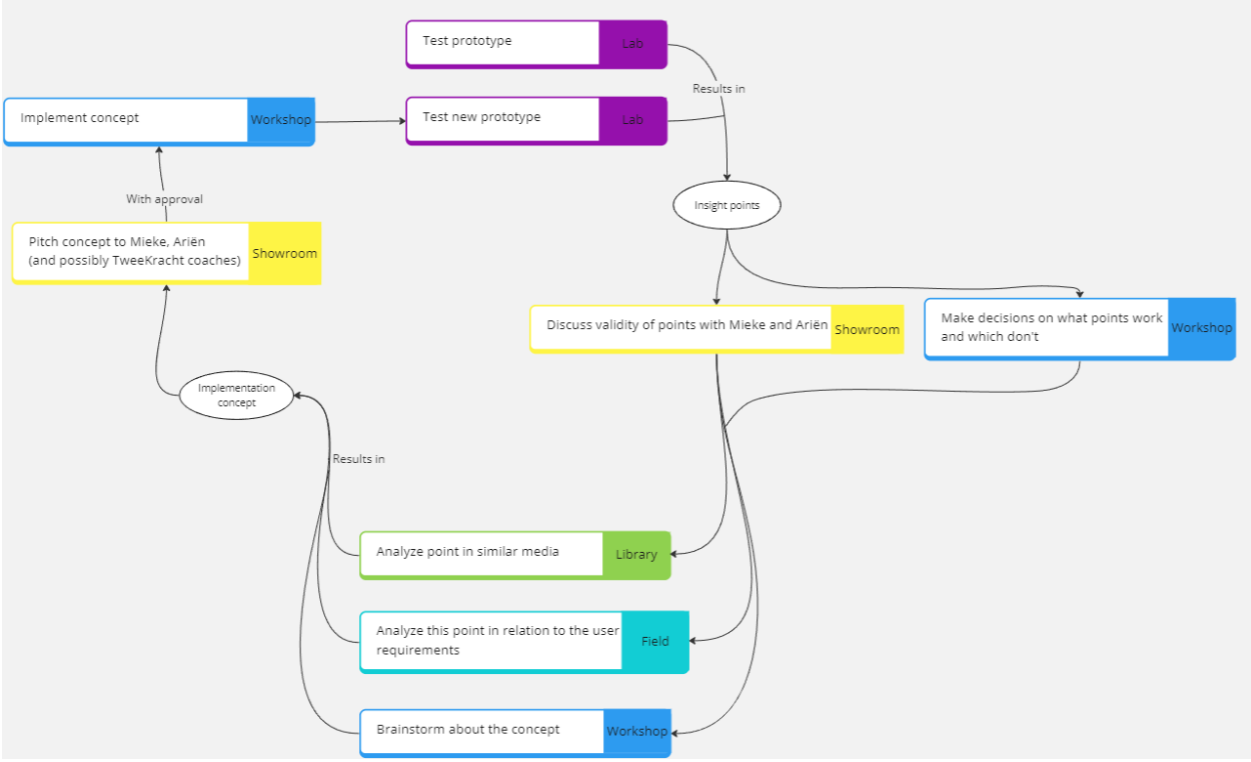
1.4 Strategy

I'm going to use the Scrum method so that I'm constantly on track with development. A Scrum board is also part of this method, and for this I'm going to use Jira, because this also offers tools for insights into the project like burn-down charts.

For research, I'm going to use the DOT-Framework.

I'm choosing Scrum because I personally enjoy working in sprints, and this also fits in with the way TweeKracht structures their week. We meet every week on Monday to discuss what we're going to do that week. So therefore, sprints are one week long. Each week I will deliver either improvements or new research insights that will help improving the prototype.

I will use the following cycle to iterate often on improvements.



The first step is to test the prototype. If there already have been made improvements, I will use the version with the current improvements I'm testing (Usability testing). This will give me key insight points. I discuss the results of these tests with Mieke and Ariën and discuss if they're worth going through with (Peer review). From this I can make decisions on whether certain points will even work (multi-criteria decision making). I will then analyze how these points are achieved in other media, and what context they are used in (Available product analysis). I will also critically analyze the point and see if they even fit within the user requirements (Explore user requirements) and I will create a concept for an implementation that should improve the experience and enhance user engagement (Brainstorm). I will then implement this change and showcase the new prototype to Mieke and Ariën, possibly involving some of the coaches who can give me a fresh perspective on the application (Pitch). I will then rapidly test again. These tests are always conducted with a new test panel because previous testers might remember their previous experience and will base their answer off of those.

1.5 Research questions

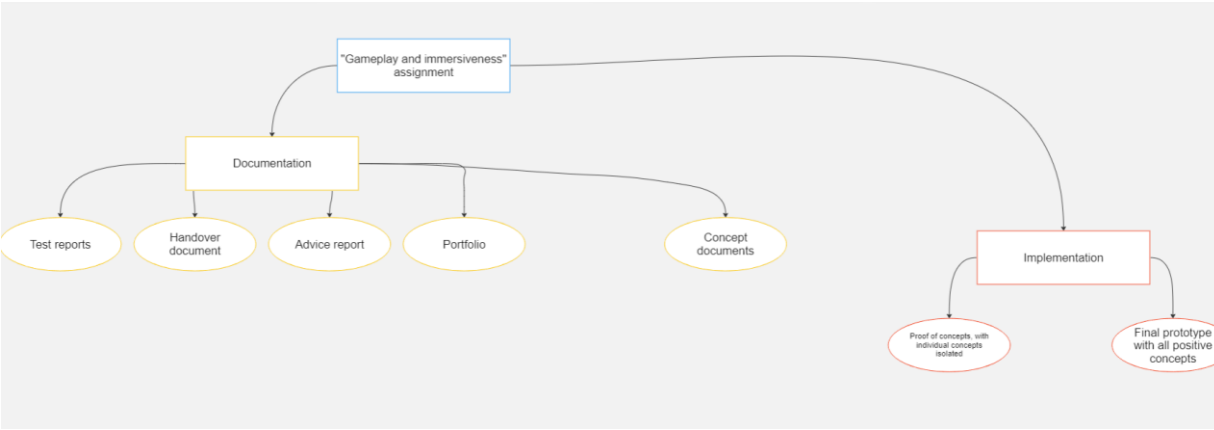
1.5.1.1. Main question

- Redesign the digitized version of the energy game so that vocational students in an introductory course of TweeKracht are more engaged in play, are more immersed into the ideal world and get more accurate results

1.5.1.2. Sub questions

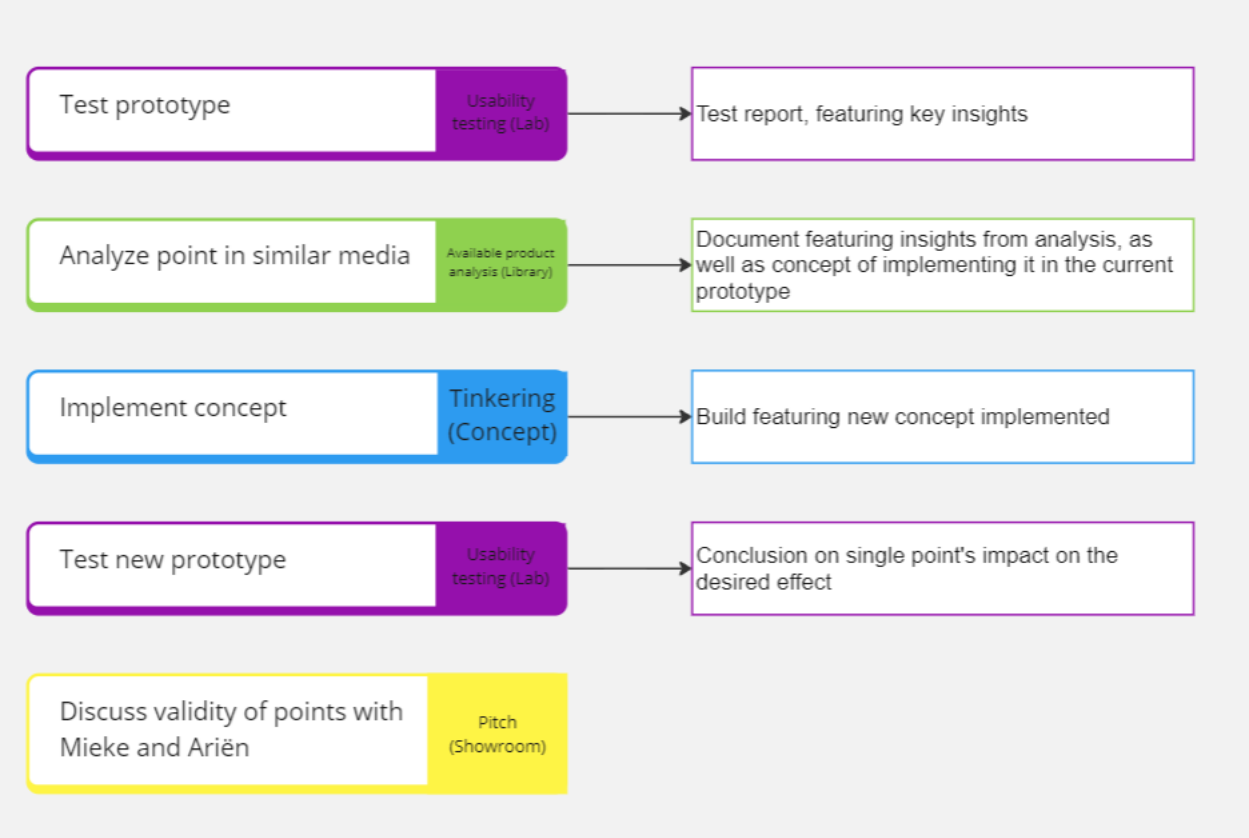
1. What are the current challenges faced by students when using the existing digital prototype? (Interview/Product Review)
2. Why are students currently not engaged enough in the current version? (Observation/Interview)
3. Why do the players have issues with getting into the ideal world? (Expert Interview/Interview/Document analysis)
4. How can I keep players engaged in the game? (Available product analysis/Literature study/AB Testing)

1.6 End products



This is a diagram of all the end products of the internship. From left to right we have the following products:

- The test reports are the reports with insights from each test, both the initial test and subsequent tests with implemented features. These contain insights found from the test and the next steps.
- The handover document will contain a full overview of things that a next intern or other employee can use, that are both in and not in the product yet, mostly about the technical side. This might be combined with the advice report for one document.
- The advice report will contain advice on how to further improve player engagement and will feature things I have tried and failed and haven't tried yet. This might be combined with the handover document for one document.
- The proofs of concept are every single feature I have implemented, regardless of whether they made it or not.
- The final prototype is the final build of the game with all features that I have concluded are compatible and proven to improve player engagement and accuracy.



This is a diagram of the products I will be delivering from the cycle described in strategy.

The test report will contain:

- Observations from test
- Interview/Questionnaire results
- Notable occurrences or comments
- Conclusion with key points

From these key points I will analyze other media's implementation on them, and if possible, do other research on that point and if it can impact immersiveness.

The document will contain:

- Different media’s implementation of a specific point
- Other research (Literature study) of the point and its impact on immersiveness and possibilities in gaming
- A concept of implementation in the digital product

With this document, I am ready to implement into the digital game.

This implantation will be delivered as a build. This build will subsequently be tested again, and from this test will come a new report.

This report will contain:

- Observations specifically about this point and the overall improvement (or deterioration) of the experience
- Conclusion

2. Project organization

2.1 Team members

Name, phone number and email	Role	Availability
Julian Tekstra Tel: +31 6 437 767 05 Email: 1. Julian-Tekstra@hotmail.com 2. 431603@student.fontys.nl		Monday through Thursday: 9:30u-16:30u on location (De Loop 2, Oirschot) Friday: 9u16u work from home
Ariën Kingma Tel: +31 6 215 278 55 Email: • a.kingma@tweekracht. nl	Company mentor	Meeting at least 1x per week, on site every Monday and sporadically the rest of the week
Mieke Boogert Tel: + 31 6 187 836 23 Email: • m.boogert@tweekracht.nl	Company mentor	Meeting at least 1x per week, on site every day
Anke Bardie Tel: +31 6 839 806 62 Email: • a.bardie@fontys.nl	Internship mentor Assessor	Meeting at least 1x per week

2.2 Communication

Every week Mieke, Ariën, the other interns also working on the project, and I have a meeting on Monday in which we will say what we're going to do that week. Mieke is also on site every day (except Fridays) which is when we also work from home. On Fridays I have weekly meetings with Anke, in which I showcase my progress of the past week.

3. Activities and planning

3.1 Approach of the project

The project is divided into several phases: the kick-off phase, the research phase, the implementation phase, the previous prototype test and the validation phase.

This means I'm using a combination of Waterfall and Scrum. I'm doing this because I really like using the sprints in scrum to plan with, but this project is also perfectly divisible in phases like in waterfall.

3.2 Planning

Phase	Start	Ready
1 Kickoff phase	Week 1	End of week 2
2 Analysis phase	Week 3	End of week 5
3 Previous prototype tests.	Week 4/5	End of week 4/5
4 Concepting phase	Week 6	End of week 6
5 Design phase	Week 7	End of week 7
6 Realization phase	Week 8	End of Week 10
4 Test phase 1	Week 10	End of Week 10
5 Feedback implementation phase	Week 11	Week 14
6 Validation phase	Week 15	End of internship

Phases can overlap if more work needs to be done, and all phases sort of overlap, with research and validation still being a part of the project all throughout

4. Test approach and configuration management

4.1 Test strategy

During the projects, I want to have several tests during the process. The first one is primarily focused on what the current engagement of the app is, and where the biggest faults lie. The second is mainly focused on the improvement of user engagement and the last is mainly making sure everything works. The first one will take place early in the project, with the second being about halfway through the internship. The last one will take place near the end.

I will use Think-Aloud testing and an interview/questionnaire for testing. This gives me insight into the tester's experience after and throughout the test. Each test will have a unique set of questions.

The tests will not focus on any technical aspects, meaning things like performance, code expandability or appearance. Because my assignment is focused on achieving the effect present in the physical game, I will leave any technical aspects aside and focus entirely on the psychological side of the game. However, if there are any game breaking issues, these will be fixed.

4.2 Test environment and requirements

To test the prototype properly, I need a build of the prototype. This runs on a smartphone, I will use an android phone for this, because you can easily install APK files on it.

I will also need the physical game because I also need to use that for testing, to see the differences in effect.

I will also need volunteers. In ani deal situation I would test both versions of the game, but this won't work, because people will just click the answers they used in the other version.

The tests will require somewhere between 15-20 people and requires somewhere between 15 and 30 minutes to take place.

4.3 Configuration management

For version control I use GitHub. There are some issues with storing large files, so I might need to find an alternative solution for that to store videos. This can be a Google Drive

I will keep track of my tasks using Jira.

What	Where	Quality control
Documentation	Canvas/Fontys OneDrive	Feedback from company mentor
Code	Github	Version control
Portfolio	Gitbook	Feedback from company mentor

5. Risks

5.1 Risks and mitigation

Risk	Prevention activities	Mitigation activities
1 Company supervisors not available	Clear appointments about when someone is and isn't available	Communication with Anke.
2 Bad time management	Having a clear planning about what needs to be done when	Invest extra time to make sure I catch up on tasks.