Project plan

Team 5
Fontys Design Charette

10-5-2023

The assignment

For our assignment, there was not really a problem. There is more of an opportunity. Our stakeholder, and also our contact from the Johan Cruyff Foundation (JCF), is Axel Boomgaard, the project manager creating space at the JCF. The JCF has three main facilities which they make across the world. These three are explained in depth in [relationship with other projects or initiatives](). He told us that there was a big opportunity to improve the "Schoolplein14" – *translated to Schoolyard14* – to get more kids from ages 6 to 12 to do sports, to play and to connect with others, during and after school time.

The opportunity is to innovate on the 14 existing coatings from Schoolplein14 with at 15th coating, with possible technical innovations. The games should be even more engaging for the kids to play, and the games should also be multifunctional, which means that more games than just one game can be played on a coating, and accessible for people with handicaps, like being in a wheelchair or even handicaps like poverty or struggles to connect with others.

So, in short, we must *research and design a way to innovate the Schoolplein14 coatings by making a 15th coating based on what the kids, ages 6 to 12, want.*

Project Group Members

- ## Students

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- Clients

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Relationship with other projects or initiatives

The Cruyff Foundation is a Dutch non-profit organization that aims to promote sports among young people, with a focus on children with disabilities. The organization has not established any courts, but it has initiated several projects in collaboration with local communities to provide accessible and inclusive sports facilities. Here are some examples of the types of courts and facilities the Cruyff Foundation has established:

Cruyff Courts: These are small-sized football (soccer) fields, typically located in urban areas, that are designed to encourage young people to play sports and engage in physical activity. The Cruyff Foundation has established more than 250 Cruyff Courts worldwide, providing a safe and accessible space for children to play.

Schoolyard14: This project aims to transform school playgrounds into multifunctional sports facilities that are accessible to all children. The Schoolyard14 program includes the installation of a range of sports equipment, such as football goals, basketball hoops, and climbing walls, and provides training and support for teachers to facilitate inclusive play.

Special Cruyff Courts: These are adapted Cruyff Courts designed to accommodate children with disabilities, providing a safe and inclusive space for all children to play. The Special Cruyff Courts feature a smooth surface, wheelchair-accessible goals, and other adapted equipment to ensure that all children can participate in sports activities.

Cruyff Foundation Open Days: These events are organized by the Cruyff Foundation to promote sports and physical activity among young people. The events include a range of sports

activities, workshops, and demonstrations, and are open to children of all abilities.

Our assignment focuses on the Schoolyard14 initiative, but the other initiatives also play a role because they are doing very well in terms of interaction and participation.

Overall, the Cruyff Foundation has established a range of projects and initiatives to promote sports and physical activity among young people. By providing accessible and inclusive sports facilities, the organization aims to encourage children to lead active and healthy lifestyles and promote social inclusion and community engagement.

THE 14 RULES OF JOHAN CRUIJFF

1. TEAMPLAYER — To accomplish things, you have to do it together.
2. RESPONSIBILITY — Take good care of things as if it was your own.
3. RESPECT — Respect one another.
4. INTEGRATION — Involve others in your activities.
5. INITIATIVE — Dare to try something new.
6. COACHING — Always help each other within a team.
7. PERSONALITY — Be yourself.
8. SOCIAL INVOLVEMENT — Crucial in sports, and even more so in life in general.
9. TECHNIQUE — The basics.
10. TACTICS — Know what to do.
11. DEVELOPMENT — Sports develop body and soul.
12. LEARN — Try to learn something new every day.
13. PLAY TOGETHER — An essential part of the game.
14. CREATIVITY — The beauty of sports.

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SCHOOLYARD 14

Main research question and sub questions

Our main research question is:

"How can the integration of synthetic media, mixed reality, artificial intelligence, and/or big data in the design of Schoolplein14 and its surrounding environment effectively encourage children and young people to engage in outdoor play and physical activities?"

Our sub questions are:

- *"What are the preferred play activities and engagement patterns of children in the target age group within the context of Schoolplein14, and how can this knowledge inform the design of technological innovations to encourage outdoor play?" Umair & Maarten*
- *"What is the potential value and feasibility of the brainstormed ideas in effectively encouraging outdoor play among children in the context of Schoolplein14?" - Niels & Liangyu*
- *"What are the needs, goals, and expectations of the key stakeholders involved in the Schoolplein14 project?" Mehdi & Leonie*
- *"What are the existing technologies related to synthetic media, mixed reality, artificial intelligence, and big data, and how can their application be valuable in designing and implementing technological innovations for promoting outdoor play in the Schoolplein14 project?" Svetoslav & Yoana*

Project phasing

For this project we will use the design thinking method and in this way, we will also divide our tasks into different phases.

Design thinking is a problem-solving approach that focuses on understanding the needs and behaviours of users to develop creative and effective solutions. It is a user-centered approach that involves iterating through several stages to arrive at the optimal solution. Here are the steps involved in the design thinking process for a project plan:

Empathize: In this stage, you need to understand the users' needs and behaviours. This involves conducting user research, interviewing stakeholders, and understanding the context in which the project will be implemented.

Define: Based on the insights gathered in the empathize stage, you need to define the problem that needs to be solved. This involves framing the problem statement and identifying the key objectives of the project.

Ideate: In this stage, you need to generate a wide range of ideas for solving the problem. This involves brainstorming, sketching, and creating prototypes to explore different solutions.

Prototype: Once you have a set of potential solutions, you need to create prototypes to test them with users. These prototypes can range from low-fidelity sketches to high-fidelity mock-ups, depending on the complexity of the project.

Test: In this stage, you need to test the prototypes with users to gather feedback and refine the solutions. This involves observing user behaviour, conducting surveys and interviews, and making changes based on the feedback received.

Implement: Once you have refined the solutions based on user feedback, you need to implement the final solution. This involves creating a project plan that outlines the timeline, resources, and milestones for the project.

Overall, the design thinking process involves a continuous cycle of iteration and refinement to arrive at the best possible solution for the problem at hand. By following this process, you can create a project plan that is user-centered, creative, and effective.
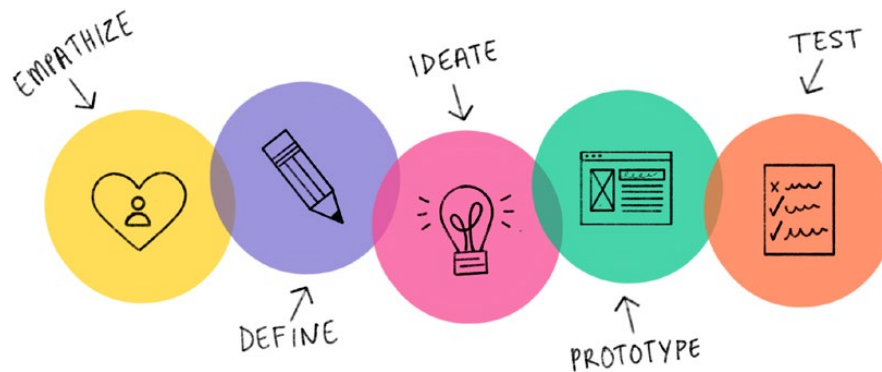
- *"What are the existing technologies related to synthetic media, mixed reality, artificial intelligence, and big data, and how can their application be valuable in designing and implementing technological innovations for promoting outdoor play in the Schoolplein14 project?*

1.2 Objective of the project (SMART)

Goal: Increase play and physical activity time for children in School 14 by 50% using technological innovation combining synthetic media, mixed reality, and data, while creating a stimulating environment to play and exercise.

- Specific: The goal is clearly defined as increasing play and physical activity time for children in School 14 using technological innovation and creating a stimulating environment for play and exercise.

- Measurable: The 50% increase in play and physical activity time is a quantitative measure that can be measured before and after the project is implemented.

- Achievable: The goal is realistic and achievable with the resources available, using the technologies mentioned and adapting to the school environment.

- Relevant: The project is consistent with the Cruyff Foundation's goals of encouraging physical activity and play in children and addresses an identified need in School 14.

- Temporally defined: The objective is defined for a specific period of time, such as a school year, to allow for accurate measurement of its achievement within a defined time frame.

Specific	Measurable	Achievable	Relevant	Temporally defined
increase play and physical activity time for children in School 14 using technological innovation and creating a stimulating environment for play and exercise.	50% increase in play and physical activity time	The goal is realistic and achievable with the resources available, using the technologies mentioned and adapting the school environment.	The project is consistent with the Cruyff Foundation's goals of encouraging physical activity and play in children, and addresses an identified need in School 14.	The objective is defined for a specific period of time, such as a school year, to allow for accurate measurement of its achievement within a defined time frame.

Project Activities

As mentioned before, for this project we are using the design thinking method. This means that we divide different tasks into different phases of the project.

Empathise:

During the Empathize phase, our team visited different Cruyff courts and Schoolplein14 locations. We spoke with teachers, children, and parents to understand their perspectives on outdoor play.

Children shared their favorite play activities and areas within the playgrounds, providing insights into their motivations and play patterns.

These valuable insights will inform our subsequent design thinking phases, helping us develop solutions that address the stakeholders' needs effectively.

Define:

To prepare for the Define phase, our team took specific steps for each research area:

Understanding children's preferences and behaviors:

- Conducted a literature review on child development and play preferences.
- Established a foundation of understanding and identified relevant research methods.
- Evaluating proposed ideas:

Brainstormed potential technological ideas.

- Reviewed each idea for alignment, uniqueness, and feasibility.
- Understanding stakeholder perspectives and goals:

Identified key stakeholders involved in the project.

- Conducted background research on their roles and objectives.
- Tailored research approach and questions to capture stakeholder insights.

Exploring existing technologies and their value:

- Conducted a technology scan to identify relevant technologies.
- Reviewed research papers and emerging trends.
- Focused on technologies with potential and alignment with project goals.

These preparations ensured that our research data and insights were focused, relevant, and aligned with the goals of the Define phase. This facilitated a smooth transition to creating new findings and defining a clear problem statement and design challenge for subsequent stages of the design thinking process.

Ideate:

During the ideation phase, we will brainstorm based on our research findings. We will leverage the insights gained about children's preferences, stakeholder perspectives, and technologies to generate innovative ideas. Our research will guide our brainstorming sessions, ensuring our ideas address the challenges and align with Schoolplein14's goals. Through collaborative thinking, we will explore diverse possibilities and push beyond conventional solutions. By infusing our ideation phase with research knowledge, we aim to create impactful solutions that enhance outdoor play experiences.

Prototype:

In the prototype phase, we will create tangible mockups and prototypes based on our ideation phase. These prototypes will bring our ideas to life, allowing us to test feasibility and gather valuable feedback. Through iteration and refinement, we aim to develop effective solutions that meet the specific needs of Schoolplein14. Prototypes serve as a medium for communication and collaboration with stakeholders, guiding us towards the final design. This phase bridges the gap between abstract ideas and concrete representations, paving the way for testing and implementation.

Test:

While we are not yet certain if we will reach the testing phase, if we do, our intention is to conduct thorough testing of the prototypes with the target audience. Testing is a critical step in the design process as it allows us to gather valuable insights and validate the effectiveness of our solutions.

Should we proceed to testing, we will engage the target audience, which includes children, teachers, parents, and other relevant stakeholders, in interactive sessions. These sessions will provide an opportunity to observe their interactions with the prototypes, collect feedback, and assess the user experience.

Communication

The main communication between the members is happening in WhatsApp because everyone is reachable in the fastest way. Another platform that we are using is MS Teams. Also, there we are storing our documentation.

We are meeting from Monday to Friday from 9 to 17 where we are supposed to work on the project. If needed as the preparation week where we are supposed to conduct our meeting online since everyone was in their home countries.

Risks and Mitigation

- Unforeseen delays in equipment delivery or installation: Develop contingency plans and adjust the project schedule as necessary.
- Develop safety protocols and signage, and ensure ongoing monitoring and maintenance of the equipment.
- Privacy of students, children, and during the research phase.