

# Project Plan

Project plan – Fontys University of Applied Sciences

HBO-ICT: Advanced Media

Group Number : 6

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# 1. Project Assignment

Within this document, you will gain more insight into the purpose and motivation behind the DIFLA Trainer project, our project goals, our strategic approach to addressing the identified challenges, the key stakeholders involved, and the possible risks associated with the project.

## 1.1 Context

The project aims to address the challenges connected with dyslexia by providing a digital flash card reading trainer (DIFLA trainer) for kid-parent pairs. Dyslexia is a learning disorder that involves difficulty reading due to problems identifying speech sounds and learning how they relate to letters and words. Additionally, children often suffer from low self-esteem due to the reading struggle that they experience. Furthermore, reading flash cards is a proven method for strengthening sound-symbol automation and it serves as a base for this project.

However, last year, a student from ICT & Media Design, created a prototype for the DIFLA trainer targeting Dutch kids between the age of 6 and 9 years old. This application holds potential benefits for both children and parents. Children can receive invaluable parental support, while parents can depend on the provided guidance. The application is designed for tablets with split screens - for the kid and the parent. Currently, a base for the DIFLA trainer is the method of Veilig leren lezen to introduce new sounds.

For the current state of the project, the focus is on continuing building on the existing prototype. The flash cards should remain the same and they should be the only learning feature in the application. There are many opportunities that can be explored such as how to keep the attention of the kids and how to motivate them, and how to make the app more desirable than using physical flashcards.

## 1.2 Goal of the project

Regarding the project which we will be working on in the upcoming months, a notable problem which requires to be solved, based additionally from the intake period with the stakeholders, is the design and the general intuitiveness of the existing prototypes, by performing user testing, ensuring it effectively meets the needs of our target audience.

Elaborating on the project in greater detail, the DIFLA project, a digital flashcard application tailored to aid Dutch-speaking children aged 6-9 facing dyslexia or reading challenges. Furthermore, we want to introduce enhancements that elevate the app's functionality and general user experience.

A crucial question that would be presented during the consultation on the project is the maintenance of the scientifically-proven flashcard method while being asked to expand its utility, whether through implementing levels, integrating a timer, or optimising the use of physical dividers. Moreover, each addition or modification must be rigorously supported by detailed research, aligning with the expectations of our stakeholders for innovation grounded in evidence-based practice.

## 1.3 The assignment

Our assignment as a team is to continue working on the DIFLA project, a digital flashcard application aimed at helping Dutch-speaking children aged 6-9 who may struggle with dyslexia or encounter difficulties in pronouncing and reading letters. Our objective is to validate and test the current prototype with our target audience through user testing, while also incorporating new features to improve the app and enhance the overall experience. A key requirement from our stakeholders is to maintain the flashcard method, which has been scientifically proven, while expanding upon it by either adding levels, a timer or using the physical divider more efficiently. Additionally, we must support each new addition or feature with detailed research.

## 1.4 Research Questions and Research Method

Main Research Question :

***How can we enhance the DIFLA Trainer by incorporating gamification strategies and a screen divider to better support and motivate children with (potential) dyslexia, specifically focusing on improving engagement with flashcard-based learning in a kid-parent collaborative environment ?***

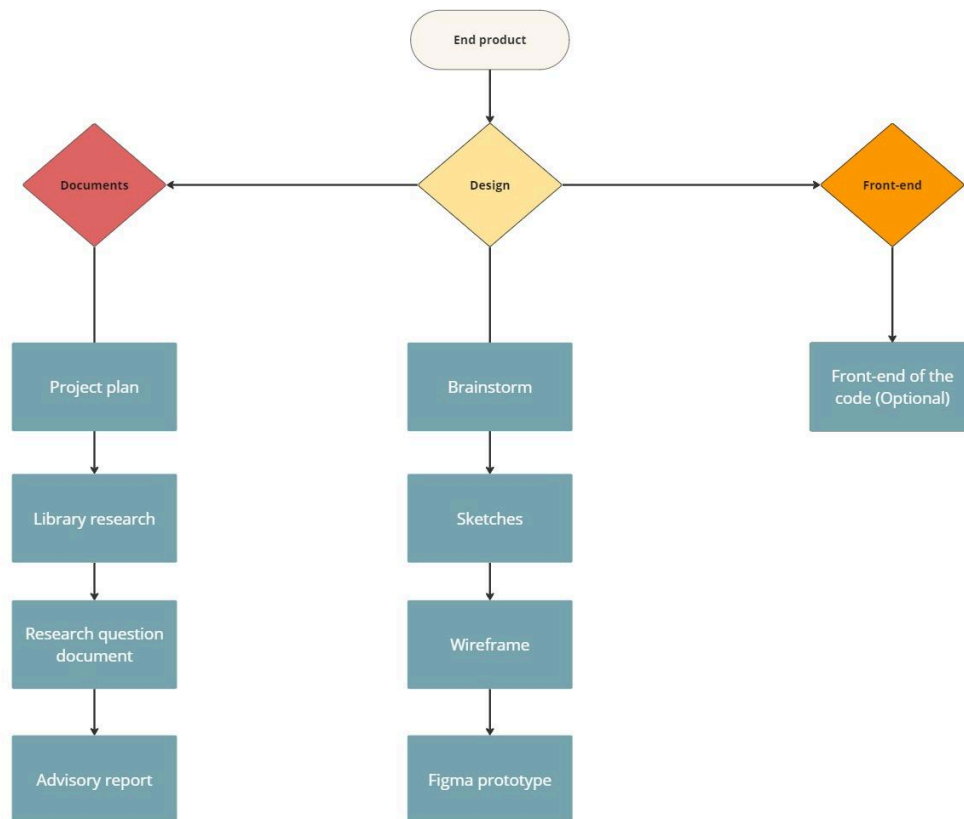
Sub - Research questions	Research methods
1-How can the current DIFLA app be improved in order to enhance the learning outcomes for children with (potential) dyslexia, while also upgrading the user-experience?	Literature review, Competitor analysis, Interview
2-How can children with dyslexia stay engaged during the learning process while using the DIFLA app?	Literature review, Competitor analysis, Expert Interview
3-What gamification techniques can be included to enhance the overall user experience for kids with potential dyslexia ?	Competitive review , Literature review
4-How can a physical tablet screen divider be developed which would support user engagement levels during practice?	Literature review, prototyping, brainstorm
5-How can parents and children be effectively motivated in their interactions with the DIFLA Trainer?	Literature review, Competitor analysis, Brainstorm.
6-How can parents and children be effectively supported in their interaction with the DIFLA?	Literature review, Expert interview, Competitor analysis

## 1.5 Scope

Table below outlines the boundaries, deliverables, and objectives of a project. It serves as a foundational document that clarifies what will be accomplished during the project and what will not be included.

The Project Includes:	The Project does not include:
Primary Research	Backend implementation of the product
Secondary Research	New or changed learning method.
Usability Testing	
<b>Design of the DIFLA Trainer</b> Design wireframes for the DIFLA Trainer. <b>Products</b> <ul style="list-style-type: none"> <li>• Lo-Fi Wireframes.</li> <li>• Hi-Fi Wireframes.</li> </ul>	
Proof of concept	
<b>Information Architecture</b>  Research how the interaction is between the children and the DIFLA Trainer. Furthermore, “map” out the layout  <b>Products</b> <ul style="list-style-type: none"> <li>• Information Architecture.</li> <li>• Test Report.</li> </ul>	

## 1.6 End product



## 2. Approach and Planning

### 2.1 Approach

Our approach to further develop the DIFLA (Digital Flashcard Reading Trainer) integrates both the ScrumBan methodology and the Double Diamond design process model.

The ScrumBan is a combination of two popular project management frameworks (*Scrum & Kanban*), It was presented to us during an agile working methods workshop. We will organise the work into time-boxed iterations called sprints (*typically 1-3 weeks long*). At the start of each sprint, the team will commit to completing a set of tasks from the backlog. Afterwards the work is pulled from the backlog while we focus on limiting the work in progress (WIP) to maintain flow. The group members will collaborate to complete the tasks, updating the status on a board (Trello) as they progress.

For the design process model we decided to work with the Double Diamond which revolves around its 4 main stages (*Discover, Define, Develop, Deliver*). It is a model that we were all familiar with from past semesters. We selected it for the project since it emphasises user-centred design and gives us the flexibility to revisit already finished phases of a project which allows us to iterate/enhance the work that was previously conducted for the project prior to our involvement.

### 2.1.1 Test Approach

Following the project's Prototyping phase, which will result in the creation of prototypes, user testing will be conducted on the high-fidelity designs in order to gather information on the users interactions, overall functionality, and content testing.

#### **Functionality Testing**

It ensures the correct operation of all features, such as the gamification elements and screen divider components.

#### **Usability testing**

It focuses on the user-experience and overall engagement, by gathering feedback from children and parents, with the possibility to test specific features with the teachers.

#### **Content testing**

It ensures testing of the Dutch sound-symbol exercises and instructional videos that will be formulated and expanded during the project development.

## 2.2 Research Methods

In our project, we will make use of a variety of research approaches in order to fully understand our target audience, market competition as well as the product's requirements. **Competitor Analysis** will be used to find out more about competitors' strategies and features. **Expert Interviews** will give insights from industry experts while **Literature Review** will provide a base that introduces us to existing research and best practices. Furthermore, **Customer Scenarios** and **Personas** will assist us to relate with users empathetically and customise the solutions to their needs. **Usability Testing** as well as **A/B Testing** are essential in helping us test design assumptions and enhance user experience



while **Peer Review** is an opportunity where the team can get feedback on its work from colleagues who are experts within their respective fields. Prototyping enables quick iteration and concept validation while **Mood Board** directs our visual style. Additional methods might be used depending on the direction of the project during the semester.

## 2.3 Breakdown of the project

In this project, we're employing a sprint-based approach. Each sprint will comprehensively cover its objectives, and in the event of a missed deadline, we'll collectively shift the sprint by one week to ensure completion.

Should a team member be unavailable due to travel or illness, tasks will be redistributed among us to uphold our stringent timelines. We've allotted ourselves 14 weeks to accomplish this project.

### **Sprint 1 Planning**

Week 1 (21/03/24) until the end of week 3 (16/04/24) – During this sprint different kinds of research methods will be conducted to better understand the topic and our target audience.

### **Sprint 2 Design**

Week 4 (16/04/24) until the end of week 6 (26/04/24) - During this sprint research will be applied to low fidelity designs to enhance the DIFLA trainer. During this sprint an international week is planned within our schedules, this means that there is little to no time to work on the project itself.

### **Sprint 3 Develop**

Week 10 (29/04/24) until the end of week 11 (11/05/24) – During this sprint the low fidelity prototypes and designs will be converted into high fidelity prototypes, alongside design methods (CMD Methods).

### **Sprint 4 Testing**

During week 11 (13/05/24) and until the end of week 12 (31/05/24), we'll focus on creating user test plans for a structured approach of the user tests that will be conducted during these weeks. The results will allow for the refinement of the high-fidelity prototypes, and the further development of the DIFLA Trainer.

### **Sprint 5 Deploy**

From Week 13 (01/06/24) through Week 14 (18/06/24), we'll focus on comprehensive testing of our work. We'll then incorporate feedback from these tests to refine our project. These concluding weeks mark the finalisation phase, where all aspects of the project will be completed. Coding during this time is optional.

## 2.4 Time Plan

Phases & Tasks	Start	End	ETA
<b>Sprint 1 Planning</b>			
<i>Brainstorming*</i>	21/03/24	21/03/24	1 Day
Project Plan	26/03/24	02/04/24	7 Days
Literature Study	02/04/24	09/04/24	7 Days
Competitor Analysis	09/04/24	16/04/24	7 Days
Trend Analysis	09/04/24	16/04/24	7 Days
Brainstorming*	16/04/24	16/04/24	1 Day
<b>Sprint 2 Design</b>			
Best, Good & Bad Practices	16/04/24	16/04/24	1 Days
Sketches	16/04/24	17/04/24	2 Days
Low-Fidelity Prototypes	17/04/24	19/04/24	3 Days
<b><i>International Project</i></b>	<b>22/04/24</b>	<b>26/04/24</b>	<b>5 Days</b>
<b>Sprint 3 Develop</b>			
High-Fidelity Prototypes	29/04/24	10/05/24	9 Days
Card Sorting	11/05/24	11/05/24	1 Days
<b>Sprint 4 Testing</b>			
User Test Plan	13/05/24	16/05/24	4 Days
User Test	20/05/24	27/05/24	7 Days

Phases & Tasks	Start	End	ETA
<b>Sprint 1 Planning</b>			
<i>Brainstorming*</i>	21/03/24	21/03/24	1 Day
Project Plan	26/03/24	02/04/24	7 Days
Literature Study	02/04/24	09/04/24	7 Days
Competitor Analysis	09/04/24	16/04/24	7 Days
Trend Analysis	09/04/24	16/04/24	7 Days
Brainstorming*	16/04/24	16/04/24	1 Day
<b>Sprint 2 Design</b>			
Best, Good & Bad Practices	16/04/24	16/04/24	1 Days
Sketches	16/04/24	17/04/24	2 Days
Low-Fidelity Prototypes	17/04/24	19/04/24	3 Days
<b><i>International Project</i></b>	<b><i>22/04/24</i></b>	<b><i>26/04/24</i></b>	<b><i>5 Days</i></b>
<b>Sprint 3 Develop</b>			
High-Fidelity Prototypes	29/04/24	10/05/24	9 Days
Card Sorting	11/05/24	11/05/24	1 Days
User Test Report	28/05/24	31/05/24	4 Days
<b>Sprint 5 Deploy</b>			
PWA Development (Optional)	01/06/24	18/06/24	14 Days

### 3. Project organisation

#### 3.1 Stakeholders and Team Members

Name	Role	Contact details	Availability
Evelien van de Garde-Perik	Project stakeholder	<a href="mailto:e.vandegarde@fontys.nl">e.vandegarde@fontys.nl</a>	Available online for questions. Bi-weekly meeting - Tuesdays (45 min)
Rose Weterings	Project stakeholder	<a href="mailto:r.weterings@fontys.nl">r.weterings@fontys.nl</a>	Available online for questions. Bi-weekly meeting - Tuesdays (45 min)
Bardt Van Der Dennen	Project Coach	<a href="mailto:b.vanderdennen@fontys.nl">b.vanderdennen@fontys.nl</a>	Available online for questions. Available on Wednesdays
Lody Aeckerlin	Project Coach	<a href="mailto:l.aeckerlin@fontys.nl">l.aeckerlin@fontys.nl</a>	Available online for questions. Available on Tuesdays & Wednesdays

Name	Contact details	Availability
Salvinas Taukevičius	<a href="mailto:s.taukevicius@student.fontys.nl">s.taukevicius@student.fontys.nl</a>	Monday - Thursday
Zakaria Zergout	<a href="mailto:z.zergout@student.fontys.nl">z.zergout@student.fontys.nl</a>	
Yoana Ivanova	<a href="mailto:y.ivanova@student.fontys.nl">y.ivanova@student.fontys.nl</a>	
Fleans Metsi	<a href="mailto:f.meci@student.fontys.nl">f.meci@student.fontys.nl</a>	
Martin Grigorov	<a href="mailto:martin.grigorov@student.fontys.nl">martin.grigorov@student.fontys.nl</a>	
Eric Manders	<a href="mailto:eric.manders@student.fontys.nl">eric.manders@student.fontys.nl</a>	

### 3.2 Communication

Communication	Method	Frequency	Goal	Audience
Daily Stand-up	MS Teams. TQ Location.	Every Day 9:00 (Excluding Friday)	Explain what has been done the day before and what will be done on that day.	Group members.
Daily Stand-Down			Explain what has been done the day before and what will be done on that day.	
Stakeholder Meetings		By-Weekly (Flexible)	Explain current and future progress.	Group members. Project Stakeholders.
Feedback			Explain current and future progress.	Group members. Semester Mentors.

## 4. Risk assessment

Risk assessment is an important process for a project to identify, evaluate, and prioritise potential risks. By analysing various aspects, it helps stakeholders make informed decisions, prevent losses, ensure compliance, and enhance resilience in the face of uncertainty.

Below, a table outlines potential risks, their likelihood, impact, overall risk rating, and recommended response. Additionally, a detailed explanation of the risk scale (rated from 1 to 10) is provided to aid in understanding the severity of each risk.

LIKELIHOOD SCALE	
1	(Very unlikely): A very slim chance for this risk to occur.

2	(Not likely): Low chances for this risk to occur.
3	(Possible): Fifty-fifty chances for this risk to occur.
4	(Probable): Good chances for this risk to occur.
5	(Very likely): You can bet this risk will occur at some point.
<b>IMPACT SCALE</b>	
1	(Negligible): This risk will hardly impact your project.
2	(Low): You can easily handle the consequences of this risk.
3	(Moderate): It will take some time and effort to mitigate the consequences of this risk.
4	(Significant): This risk could cause long-term consequences that will be hard to recover from.
5	(Catastrophic): The impact of this risk might wreck your project.
<b>RISK RATING Likelihood x impact = Risk rating</b>	
1-6	Low-rating risks most likely will not happen. If they do, they will not be a threat to your project.
7-12	(Medium): Some medium-rating risks might happen at some point. You do not need to prioritise them but you should not ignore them either.
13-25	(High): High-rating risks are serious and very likely to happen. They can cause your project to go off the rails, so you should keep them in mind when planning your project.

RISK	LIKELIHOOD	IMPACT	RISK RATING	RESPONSE (ACTION)
<b>Difficulty in Recruiting Participants</b>				
Difficulty in finding an adequate number of children within the target age range and with dyslexia/difficulty reading for testing and research.	5	3	High	Partner with schools or educational institutions. Check online platforms and communities focused on dyslexia support to reach out to potential participants.
<b>Ethical Considerations</b>				
Ethical concerns related to involving children in research, including informed consent, privacy, and potential emotional distress.	3	3	Medium	Obtain informed consent from parents or legal guardians before involving children in testing. Ensure anonymity and confidentiality of participants' personal information and data.
<b>Representation and Diversity</b>				
Lack of diversity among participants, leading to biased	4	3	Medium	Ensure efforts are made to recruit a diverse group of participants in

results that may not accurately represent the target population.				terms of demographics, socioeconomic backgrounds.
Dropout or Attrition Rates				
High dropout or attrition rates among participants during the course of the research study.	2	2	Low	Maintain regular communication with participants and their families to address any concerns or issues that may arise. Offer flexible scheduling options for testing sessions.
Communication Breakdown				
Lack of effective communication among team members leading to misunderstandings, delays, and inefficiencies.	2	2	Low	Establish clear channels for communication, such as regular team meetings, updates, and project management tools. Assign roles and responsibilities clearly to ensure accountability and avoid duplication of efforts.
Scope diversion				
Expansion of project scope beyond initial objectives, leading to delays and resource constraints.	3	5	High	Define clear project objectives and scope boundaries at the outset to prevent scope creep. Regularly review project progress against the defined scope and adjust as necessary to stay on track.
Missed Deadlines				
Failure to meet project milestones and deadlines, resulting in project delays and potential negative impacts on project outcomes.	2	3	Low	Develop a realistic project schedule with achievable milestones and deadlines. Monitor progress regularly against the schedule and identify any potential delays early on.

## 5. References

*Project risk assessment: example with a risk matrix template.* (2023, July 28). BigPicture.

<https://bigpicture.one/blog/project-risk-assessment-examples/#:~:text=A%20project%20risk%20assessment%20is,consequences%20in%20case%20they%20occur>

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[https://miro.com/app/board/uXjVNZwfBrA=/  
/](https://miro.com/app/board/uXjVNZwfBrA=/)