

WORKFLOW DEVELOPMENT FOR UX/UI INTERNS AT STICHTING GAMELAB OOST

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Preface

This thesis is the result of my graduation assignment for the studies Creative Media and Game Technologies at Saxion University in Enschede, the Netherlands. The research was carried out at and for Stichting GameLab Oost, a Serious Game company also located in Enschede, the Netherlands, between the 29th of April 2019 and 21st of January in 2020.

Creative Media and Game Technologies is a diverse course that educates people towards different specialisations. The direction I wanted to take was UX/UI. Researching people's wishes and adapting a product to them has always been something that captured my interest. In co-operation with Stichting GameLab Oost we turned my preferences into a fitting research assignment that would also help them in improving their products.

I would like to thank the people from Stichting GameLab Oost for giving me this opportunity and for their guidance. Specifically, I want to thank Keesjan Nijman for creating a very welcoming and pleasant working atmosphere, which allowed me to be as informal or professional as I felt was necessary.

I also want to thank Kasper Kamperman for guiding me during my graduation process, Hester van der Ent for the guidance in the last phase of the project and Sarah van der Hoogt for being my incredibly helpful and supportive Study Career Counsellor throughout my course.

Summary

Stichting GameLab Oost is struggling with their workflow UX/UI research and design. This aspect of their prototypes often must be re-done by the people of Conceptlicious because of the shortcomings. This means that Conceptlicious invests their time and therefore money in improving Stichting GameLab Oost's products without getting anything in return, since Stichting GameLab Oost is a foundation and doesn't revolve around profit. To grasp why the quality of the UX/UI research and design were of the lower standard, an interview was necessary. The project manager stated that Stichting GameLab Oost runs solely on interns and that it is rare for them to specialise in UX/UI. As a result of having no structure to work with, this aspect of the development process often got brushed over and executed with too little knowledge; which led to poor quality.

The goal of this research is to develop a product that will serve as a solution to this problem. To reach this goal, the next research question was stated: What tool can inform- and help interns with structurally applying UX/UI research and design in Stichting GameLab Oost?

To find the points of complication concerning UX/UI for inexperienced people, an interview with the current only UX/UI intern at Stichting GameLab Oost was held. These results combined with results from tests done with inexperienced individuals disclosed that the main struggles concerned terminology and structure due to the overflow of available information.

Collecting and assembling the necessary information that interns need to learn required the input of professionals. By conducting a survey and doing tests, several plausible options surfaced. This was reviewed and discussed with the project manager which resulted in a final structure for the workflow.

Lastly the carrier of the workflow needed to be developed. One of the requirements of the product is that it should be interactive. This fact, combined with the knowledge that Stichting GameLab Oost's resources to produce anything are limited and that it needed to be easy to use due to the complicated nature of the topic, resulted in there not being many options. After again reviewing and discussing, the best tool would be a card method kit.

The card method kit tool called "The UX/UI workflow kit" contains cards that provide a structure of tasks to do that are essential to UX/UI research and design, and in what order to do them. Each card shows what needs to be done and explains its goal and why it is necessary. It also mentions recommended sources or tools to use for that specific card, so that there is a starting point for the user.

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1 Introduction

1.1 Background Information

Stichting GameLab Oost is a serious game foundation located in Enschede. It was founded by the people of Conceptlicious, Breathe Audio and Wunderbar in 2017. They aspired to create a more gaming friendly community in the region of Twente. The reasoning for this was that there are barely any game related companies to be found in this region. Most gaming companies decide to settle in- or around the bigger cities in the Netherlands. As a result of this, a lot of people move to- or work in those places to be able to work in the field they studied for. To prevent Enschede from being left behind or forgotten in this aspect, Gemeente Enschede started supporting the creation of Stichting GameLab Oost.

Stichting GameLab Oost runs almost completely on interns from diverse studies. They bring skillsets unique to their fields into the process of creating serious games. This varies from IT to Creative Media and Game Technologies and to Applied Psychology. Working with all these people makes it more certain that all the different aspects are not left behind in the developing process. The process of creating a serious game begins after a client contacts Stichting GameLab Oost and requests a game prototype. The process lasts for as long as the students are running their internship at Stichting GameLab Oost; which is approximately 20 weeks. In these 20 weeks the students work together to create a serious game prototype, each using their own skills to assemble the product. After the client has received the prototype, they can choose to either continue to build the product with the same team of interns (resulting in the possibility for the students to begin their own startup) or take the prototype elsewhere to have it fully developed. Students that get to create a startup will get their own working space in the building of Ariensplein and will contribute to the growth of the (serious) gaming industry in Twente.

1.2 Motivation

Stichting GameLab Oost has been struggling with its approach concerning User Experience and User Interface (UX/UI). Their current working methods are insufficient and in need of a proper update. Due to Stichting GameLab Oost not having enough funds, they do not have the manpower and thus knowledge to help each intern produce content in the desired manner. In most internship terms, Stichting GameLab Oost has not even gotten interns that specialise in UX/UI, and since Stichting GameLab Oost is also not enforcing a clear working structure it is hard for the project manager to keep track of the process and to guarantee a certain product quality. This results in poorly designed user interfaces, which in return causes Conceptlicious to invest their time (and thus money) into redeveloping this part for Stichting GameLab Oost's products. Stichting GameLab Oost does not generate profit, since its function is to stimulate the game industry in the east of the Netherlands.

This means that Conceptlicious being involved in the production of Stichting GameLab Oost's prototypes keeps them from working on their own products, while seeing nothing in return. Since this is not very beneficial for their company, a set workflow is needed for Stichting GameLab Oost to make sure the necessary aspects of UX/UI are tackled without requiring the involvement of Conceptlicious.

1.3 Scope

The goal of this thesis is to develop a product that will help Stichting GameLab Oost in guiding their interns when it comes to working on UX/UI. This means it will focus on researching and analysing existing workflows, getting an understanding of UX and UI and researching what the students struggle with. All the gathered information will be used as a foundation to build the final product on.

This thesis will not go in depth about all the existing tips and tricks concerning user experience and user interfaces. There is a lot of information to be found on the internet and a lot of professionals have developed their own techniques. These experiences are valuable but there is mainly a need for a core structure, not for turning interns into specialised professionals.

One of the conditions of the product is that it must be interactive. This already gives an idea of what type of product it will be; since the problem is more practical than it is technical, the platform on which the interaction takes place will probably be merely a vessel for the content. This means that it will probably not have much of a technical aspect.

1.4 Current State

From the interview with the project manager of Stichting GameLab Oost (Appendix I), it could be concluded that there currently is no workflow the interns could work with. There is no structure for them to follow, close to no systematic guidance and there are no clear and effective sources to rely on for design choices. Additionally, Stichting GameLab Oost relies on interns completely. If there are no interns that specialise in UX/UI it could lead to a significant quality drop. More often than they would like, the people of Conceptlicious end up reviewing the 20 weeks' worth of UX/UI production of a project and must rework it to a higher standard, if they are not re-doing it completely.

1.5 Problem Statement

After interviewing the involved parties and analysing the approach Stichting GameLab Oost is taking, a definitive problem can be stated.

Stichting GameLab Oost's problem is that they are working inefficiently. The UX/UI design in the serious game projects must have a certain quality that the directors and project manager want Stichting GameLab Oost to deliver. The interview states, however, that this quality often is not (entirely) there. This results in parts of- or the entire UX/UI aspect to be re-done by the people of

Conceptlicious. It shows that the interns are having a hard time grasping UX/UI design in their twenty weeks of (graduation) internship and applying them in an organised manner.

Stichting GameLab Oost is requesting a new “methodology” for their interns to use, so the students are up to date with the newest developments.

What Stichting GameLab Oost needs, however, is a way to structure the way the UX/UI design of each project gets approached. In every term of interns, they are lucky if they have just one student that specialises in UX/UI. This shows that Stichting GameLab Oost needs a way of educating the interns about the necessary UX/UI information that they need to execute this part of the development process, because most of the interns do not have enough knowledge of it. The foundation needs some type of system that lets the students put this information to use in a faster and more practical manner. In turn, the project manager will be able to reflect on the process with more speed and ease and help improve overall quality.

1.5.1 Research Questions

To work towards this goal, one main question and three sub questions were formed to research. The main question is as follows:

- “What tool can inform- and help interns with structurally applying UX/UI research and design in Stichting GameLab Oost?”

This question focuses on developing a product that will be the means for the interns in Stichting GameLab Oost to get UX/UI research and work done. It is specified as a tool since that would be the best beforehand description of the product that will be made.

The first sub question that will, collectively with the other two, lead to the main question’s answer is:

- “What barriers are preventing students from using proper UX/UI theory and workflow?”

Researching this sub question will reveal where the struggles of the students lie when it comes to UX/UI. Most of them have little to no knowledge of it, so the final product should be able to help anyone with doing relevant research and making designs. This aspect of the development process is an important one, so although nobody has been assigned to the role, the UX/UI research and design must not be neglected.

The second sub question that will, collectively with the other two, lead to the main question's answer is:

- “What essentials are needed from UX/UI design and research for students and/or startups?”

This sub question's research will cover what information is important to include in the product. It is essential that useful and correct information will be conveyed to the students. This information will not only be gathered from a professional point of view, but also from literature and from analysing other workflows. The most overlapping information will prove to be the most crucial and thus must be included in the product.

The third and last sub question that will, collectively with the other two, lead to the main question's answer is:

- “What tool can best serve the product?”

The information obtained from researching this question will result in what medium is best suited for the concept of the product. There will be an exploration of the existing technical options that can carry the product. There will also be research about what is most feasible for Stichting GameLab Oost to use in the future.

The information gathered from researching these questions will lead to discovering what knowledge or skills the students are missing and how to make it easier for them to still perform UX/UI research and design; what the most important information and methods concerning UX/UI are that the interns should learn and what the ideal medium or platform for the product is so that it will be easy to understand and use.

The constructed hypothesis for this research is: “A structured UX/UI workflow for interns will improve efficiency in- and quality of the projects Stichting GameLab Oost works on and will help students with presenting themselves as a valuable attribute to a startup or company by providing them with a research-and-apply formula.” In this verbalisation “structured” means that there will be a systematic approach that can be implemented to any serious game project a student will encounter.

2 360 Scan

To develop a product that will help Stichting GameLab Oost, a lot of information needs to be collected about the topic. This information will lay the foundation of the research. It will reveal the points of interest that are essential to grasp and understand before developing a fitting product.

The biggest function of the 360 scan is to diverge, so the research will start with the basics. The definitions of the subject that will be researched are the first step. Then, getting a better understanding of where and how UX and UI come into play in the development process and what the functionalities of them are, is essential to learning about what the product should help achieve and how that can be achieved.

2.1 The Definitions of UX and UI

As mentioned before, UX stands for user experience (All About UX, n.d.). It is defined as “a person’s perceptions and responses that result from the use or anticipated use of a product, system or service”. It includes the user’s emotions, beliefs, preferences, perceptions, physical and psychological responses, behaviours and accomplishments that occur before, during and after use. There are three factors that influence the user experience, which are the system, the user and the context of use.

User experience is subjective in terms of that it is about individual perception and thought in relation to a system. It varies dynamically, constantly changing over time due to fluctuating usage circumstances and due to changes to individual systems as well as to the broader usage context in which they function. User experience is, in the end, about how a user interacts with and experiences a product.

UI on the other hand stands for user interface (HMI | Human Machine Interfaces, n.d.). It is defined as the space where interactions between humans and machines occur. The goal of this interaction is to allow for people to experience effective control of machines, while the machine returns information about its state. This information will aid the user in their decision-making process.

2.2 Literature Review

2.2.1 The Functionality of UX and UI

To understand the purpose of UX, diving deeper into the whys and hows of it is essential. A big factor of UX is User Research. This is investigated in great depth in “Games User Research” (Drachen, Mirza-Babaei, & Nacke, 2018). This book is written by several UX/UI professionals in the gaming field. They thoroughly describe their working processes in relation to games, which makes it incredibly relevant and useful for this research. It focuses on the user experience research and the functionality of it.

In the game industry, player experiences have been present for most of its history. However, it only started getting recognised as a discipline called GUR (Games User Research) in the last decade.

GUR team researchers are responsible for planning and executing research, analysing data and delivering findings to the development team. Across the game development process there should be prototypical phases (Novak, 2012). These represent how much the content of the game is going to evolve at every stage.

1. The first of these phases is the **concept phase**. The goal of this phase is to decide what the game is about and to convey the idea to others in written form.
2. Once the concept is carefully explored and decided upon with the approval of the whole team, the **pre-production phase** starts. Here, the proposal will be developed, and the planning made. It results in the Game Design Document.
3. The next phase is the **prototype phase**. Usually, this will be a low-fidelity (paper-based, using cards, boards tiles etc) prototype. Its only function should be to test gameplay mechanics, but it also is a good test of whether the game is fun and compelling.
4. When the prototype is approved of, the **production phase** comes in. The result of this should be a completed game.
 - a) In the **alpha phase**, the game will be worked out until it is smoothly playable from start to finish. The engine and user interface should be complete. It is the first time the game will be seen outside the team for playtesting.
 - b) The **beta phase** focuses on fixing bugs. Assets are integrated and the project needs to stabilise. The only changes to the game in this phase should be fixing bugs.
 - c) After the bugs are fixed the product enters the **gold phase**. After it has been thoroughly tested it will be manufactured and brought onto the market.
5. The last phase is called the **post-production phase**. Here, newer versions will be released that improve longevity of the game.

Product testing should be done as early as possible (Drachen, Mirza-Babaei, & Nacke, 2018). It is recommended to practice and conduct at least one study every two weeks. Setting up small testing sessions on a regular basis will make sure that results will be delivered quickly, and that the product has not been developed too far over the time that the research has been conducted, thus keeping the tests relevant.

Researchers must manage the scope of each step to fit in their development team's planning. A mistake commonly made is to set a research question that is too broad or to collect redundant data, which slows people down in their analysis. The product must be tested in several stages to make sure it will be functional and successful. The results of the tests serve to deliver information about the current state of the product to the rest of the team, with which they can further develop the product.

In user research, processes serve to ensure the quality of the work. It cannot replace researchers' abilities, people skills and innovative thinking, but good processes can lead to greater quality from the same researcher (Drachen, Mirza-Babaei, & Nacke, 2018).

In the book "User Interface Design and Evaluation" (Stone, Jarrett, Woodroffe, & Minocha, 2005) the User Interface is what gets discussed. This book focuses on the user interface and why it is essential that this part is not brushed over. It covers why it exists as a specialisation and what the most important aspects of it are.

A good user interface allows the user to forget that he or she is using a computer and to focus on what he or she wants to do. Knowledge of the internal computer system should be of little consequence to its user. The terms "good", "poor" and "bad" in describing user interfaces are very subjective: it carries a different meaning for every individual. Whether it's good, bad or poor in its usability is the most important aspect in this book. Usability can be defined as "the extent to which a product can be used to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use."

A good user interface is developed for the users and supports them in the steps they wish to make. Computer systems should be designed for the needs and capabilities of the users for whom they are intended. This brings us to User-Centered Design (UCD).

User-centered design involves users throughout the design and development process. It focuses not only on understanding the users of a computer system under development, but it also requires an

understanding of the tasks that users will perform with the system and of the environment. There are four main principles of human-centered design.

- The active involvement of users
- An appropriate allocation of function between user and system
- The iteration of design solutions
- Multidisciplinary design teams

After this come four essential human-centered design activities.

- Understand and specify the context of use
- Specify the user and organisational requirements
- Produce design solutions (prototypes)
- Evaluate designs with users against requirements

Adopting these principles and design activities ensures that the users' perspectives form part of the HCI design and development process, which will positively influence the usability of the final product.

In the development process, it is important to involve the users as early on as possible. They can help defining the requirements of the system by contributing a specification or by testing early mockups. They can give feedback about the problems of the current system. They can also test versions of the interface to provide feedback and make suggestions to the designers. When testing in a later stage they could additionally fill in surveys about the various features, even though not a lot of changes can be made here. The last moment of user feedback is when they use the final product and give their opinions and communicate problems. Revisions made in this stage should only be implemented in a new version.

When designing a good user interface (UI) the focus should be on requirements. Important questions to ask yourself are:

- What area of expertise, or domain, will the application be developed for?
- Who are the users?
- What do they want to do with the system?
- Where will it be used?

There are many techniques to find out about the requirements of your UI. They include observing, interviewing, and obtaining information from users through questionnaires or surveys.

2.2.2 “The” Process

“Games User Research” (Drachen, Mirza-Babaei, & Nacke, 2018) describes how no single process will be successful everywhere. Nonetheless, the most successful research practices will follow similar approaches, of which all contain pre-test, test and post-test tasks. Listing out these tasks is the first step towards putting in place effective processes that will increase the quality, efficiency and consistency of a research team’s work. In the book, the following steps are described:

1. Gathering information: prepare a detailed template containing the standard list of questions, a “research brief”, so that everyone has the same information.
2. Assessing the suitability of the build: inform about how mechanics will be implemented, assess whether you can answer all the questions that the development team has raised. Adapt your test methods to the stage the product is in.
3. Designing the overall testing method: Assess the testing approach; think about the number of participants, how much time you will need and how many researchers you will need. All these questions should get a fitting method to produce results.
4. Administrative planning: testing room availability, necessary assistants or moderators’ availability, report reviewers availability, stakeholders availability
5. Recruiting the participants: do not start recruiting too early or too late, use interview templates.
6. Finalising the study design: planning the test. Revealing objective or unbiased? Explanation of thinking aloud; in what order and what time will information be communicated?
7. Preparing the lab: set up lab and verify every working tool in a list. If one of the tools does not work, it will deliver incomplete data or break the study.
8. Running the test: Be prepared for what could happen on a typical testing day. When will you start the video recording? When and how will you debrief with the other researchers involved? At what point will you ask participants to fill out your questionnaire(s)? When will you give the participants breaks?
9. Analysing the results: Refer to step 6 and answer the questions you had then to validate your hypothesis. Answer them with simple yes or no answers. Coming across issues means there is something happening relevant to individuals on the project or maybe the result of a wider underlying problem.
10. Writing the report: document all the findings and research, make sure they have guidelines and mandatory sections to feel out (such as cause and impact) so everyone will be able to write on the same level.

11. Presenting the findings: preferably present in face-to-face debriefing session.
12. Following up: Try to track what happens to your report, follow how the team intends to fix the issues found, or follow up with stakeholders and discuss which improvements they intend to make and when they will make them.

2.2.3 UX/UI Workflows in Literature

To create the optimal tool to support interns in executing UX/UI tasks, it is important to analyse what workflow systems are already out there that other people use. It is more reliable to base a new product on an existing one, in terms of success rate and functionality.

In the book “Game Design Workshop” (Fullerton, 2008) the importance of the iterative process is emphasised. Creating a playable version of an idea as soon as possible in the process is recommended. It is meant to be played by the designer and their friends and the goal is to perfect the simplistic model before any of the programmers, producers or graphic artists are brought into the project. This way, the game designer will obtain feedback directly about what the players think of the game and can see immediately if player experience goals are achieved. In a lot of games, the testing of the core game mechanics comes quite late in the development process, which often results in disappointment. Understanding your player experience goals and core mechanic (the central activity of your game) early on is essential, since it becomes increasingly difficult to alter software design.

Understanding the player experience goals is done by playtesting. Playtesting is not just playing the game and gathering feedback. There are many ways of conducting playtests, but what all of them have in common is that the end goal is to gain useful feedback from players to improve the game experience.

The book “Designing for the digital age” (Goodwin, 2009) describes that the key to functional product design is appropriate design language. Having a proper design language will help focus skills and educate stakeholders. Design language exploration will help stakeholders select a clear visual communication strategy based on sound reasoning (See Figure 1.).

First, inspiration is needed. Many find it helpful to look for inspiration in other products and perhaps even in nature. For example, a kitchen appliance could inspire the form or control panel of a scientific instrument.

Every visual choice has a tremendous impact on how a product is perceived. Exploring multiple directions for the design language will be worthwhile. Spend as much time on it as possible. Make use of experience attributes. They are visually oriented adjectives that describe the messages or personality the product should convey. Examples of this are “sturdy” or “friendly”. For each adjective there should be one design language study. The studies will help stakeholders say, “this direction seems almost right; that one is definitely not right”. It ensures a better understanding of the approach the product needs to take.

The studies for visual and industrial designers are similar, in the sense that they should use related shapes and textures. The on-screen elements might repeat a typical element of the hardware language to match the overall look. These directions should always be developed in collaboration, since software and hardware that do not share a language will never feel like a coherent experience.

Visual language studies typically consist of a few example elements. Making use of only a few or generic elements will save time and allows for more exploration. The elements of a visual design study should reflect the type of content every screen will show. Visual language studies almost

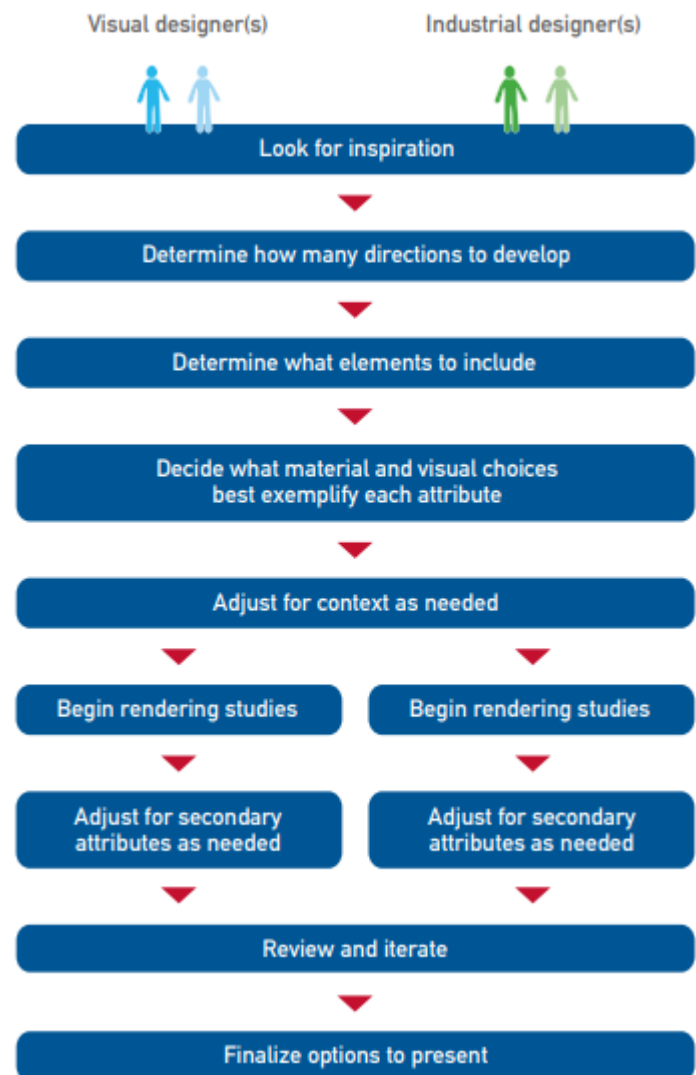


Figure 1. Overview of design language development - (Nick, et al.)

always consist of typography, common interface controls like buttons and sometimes icons. Each study should contain the same elements so that designers and stakeholders can compare the studies properly.

Think about what colours, shapes, materials, finishes and other elements will best suit each attribute. The more elements you use to portray a trait, the more strongly it will be emphasised. Visual and industrial designers should collaborate on making these choices. Sketching and considering forms, surfaces and shapes. Choosing colours, materials and finishes.

The next step is to consider if the choices are inappropriate for the context of the product. Depending on the available time of stakeholders, an industrial design study could present itself in many forms. If it shows the explored options as appropriate and it is practically done, it does not matter how it gets presented. Visual design language studies are most effective when presented as a pixel colour palette and some swatches representing possible interface elements. On websites, a palette of typefaces also plays a big role. It is important that the visual and industrial designers work in a cohesive manner, but it is easier to draw the studies separately at first. In cases where the screen is a significant visual presence, though, it is difficult to make a representational assessment of the direction until stakeholders see both together. Therefore, in most cases it is recommended to apply the screen treatment to the physical product rendering, using Photoshop or something similar.

Once a first draft is developed, pause and consider if it clearly shows one attribute without losing the others. If another attribute gets lost, try adjusting just one or two visual properties to bring in a hint of the missing attribute.

When you are satisfied with the set of first-draft studies, you can get the design team involved to see if they agree with how the attributes are represented and see if they foresee any issues. Iterate each study as needed. Never show stakeholders a study that could possibly be problematic unless you are explicitly using it as a negative example; Murphy's Law makes it almost unavoidable that stakeholders will like it! This does not mean; however, that a study should be flawless. If you are confident that the issues can be worked out later, it should not be a problem.

2.3 UX/UI Workflows from Professionals

Before the tool can be created, existing workflows need to be analysed. These workflows will reveal both effective points and less useful steps and actions which can be used in the development of the tool.

Finding existing workflows is a difficult task. Every individual has their own preferred approach and not all of them can easily describe their process in the form of steps to take. However, what can easily be found a lot of is what professionals call “case studies”. Case studies, in UX/UI context, are often done when existing products need improvement. In a case study, a product gets analysed to pinpoint where the current problems originate from, after which further steps are taken to solve these issues. Case studies define the flaws in a product and give a solution so that they no longer will be bothersome for the users.

2.3.1 Workflow 1

This workflow (Khatkar, 2019) is described in a step by step approach. It starts with the basic UX research and design like who the target audience is and a user journey of the product and follows up with the architecture of navigation in the product. The next step is to create the wireframes to design the skeleton of the product. After that, a UX flowchart is made so all the functions get explored and elaborated. What follows is making a rapid prototype, (a low fidelity prototype) in which the concept should prove to be effective (or ineffective). This is followed by building a design system, in which the general art style gets defined. It will bridge the gap between design and development. After this, the user interface needs to be designed. This step combines the previously taken steps and forms them into the product that the target audience will use. To improve the user experience, the next step is to add motion design. It will improve the user’s understanding of the app and helps the developers with understanding behaviours and interactions. As second to last step there is the design governance. The design governance stage is a stage with a lot of contact with the developers to make sure the intended experience comes across. It is also important to understand the challenges the developers face and watch over their process, so it gets produced smoothly. Then finally, the last part of the workflow process is the test, improve & update step. The product needs to be tested with the target audience and the test results should be implemented in, a new prototype, only to test again until the targets’ struggles are resolved.

2.3.2 Workflow 2

This workflow (Shah, 2019) analyses the product's potential on the market. There is a high focus on understanding the subject and problem that needs a solution. Based on those findings he forms hypotheses and creates a design process he wants to follow. After this step he moves on to the target audience and interviews them thoroughly. He gathers key observations from these interviews and puts them next to the hypotheses to pinpoint remarkable findings. Combining those findings and see where they overlap leads to several "how might we"-questions. The one that suits the situation and opportunities to improve the product the most gets chosen to work with, and the main research question takes its shape. He interviews another individual of the target audience and asks questions related to his "how might we"-question and the remarkable findings. This combines research questions with objectives and gives a better understanding of how to solve the problem. After this step, with the acquired information Shah develops two personas (each for one side involved with the problem) and made a user journey for each persona, to find out where the frustration points currently lie. Every encountered frustration point is reframed as a "how might we"-question. Then, what follows is making many sketches for both user journeys, each design decision being carefully thought through. Taking this as the foundation, one wireframe for each persona is made and tested with users through a clickable prototype. After each user test an iteration takes place until it develops into the final version after 3 iterations.

2.3.3 Workflow 3

This workflow (Shomron, 2018) starts with an analysis. An understanding of the topic is necessary, so it is thoroughly researched. Secondly the research methods are described such as conducting a survey and creating personas. Based on these, a user journey is made and followed up by a user flowchart. This was first done on paper and then digitally rendered. After that, the first sketches were made to visually imagine the product, which in turn resulted in the creation of the wireframes. With help from an app, a storyboard was created afterwards. It describes the user experience with the app. Before the final visuals could be made, an inspiration board of the design was made. It was used to understand other pet and nutrition apps. This resulted in different design possibilities. Several designs were made, and an iterative design system was used to get to a final design and colour palette. The font, icons, illustrations, naming and logo were added last as the final design touches. To round up the product, micro-interactions and animations were added to give the product life and to make sure the user would get proper feedback.

2.4 Summary

The information gathered in this chapter will be what the content of the tool will be based on, since that is the most essential part to this research. It explains what using the tool should lead to and what the essential contents should be, which in return will lead to what the most practical way of using it would be.

UX/UI research and design are essential to improving the target audience's experience. They revolve around what the user experiences and ensure optimal interaction with a system or product. Regular and early testing in the development process is recommended, so that the product does not develop ahead of the newest findings about the target audience or the functionality of the product. Working with a good process can significantly improve the quality of the product.

There are no "good", "bad" or "poor" interfaces. It will be a different experience for every individual. Usability testing is essential in measuring how the product gets used by the target audience. User-centered design involves users constantly in the development process.

Iteration is a must. Proper testing and adapting the product to new findings constantly will improve the product. Understanding, researching and testing the user experience and the core game mechanics early on will make sure that the product does not have to be drastically altered in the stage where it is already taking a physical shape.

Comparing workflows will reveal similarities. The similarities reflect what professionals consider to be fundamental to UX/UI research and design and will serve as the base of the content of the product.

3 Research Methods

To find answers to the questions that are stated to conduct this research, the optional research methods need to be explored. There are tons of methods that can be used, but which one(s) will give the most useful answers?

3.1 "What barriers are preventing students from adopting proper UX/UI theory and workflow?"

The goal of this sub question is to find out how much knowledge and skill (relatively) inexperienced people have of UX/UI research and design.

This was done by using the following methods:

3.1.1 Interview

In Stichting GameLab Oost, there have not been many interns that have an interest in UX/UI research and/or design. Currently there is only one person who is tackling this aspect of the development process, so I interviewed her about her education and knowledge to find out at about what knowledge and skill level new interns stand in Stichting GameLab Oost.

3.1.2 Card Sorting

The card sorting testing method will show how inexperienced people would handle the development process and what aspects of it they find clear and easy and which they do not. This information was used to develop a method of approach that students find productive and useful.

Based on the models found in chapter 2.3 I designed a card sorting test (see Figure 2). It consists out of 24 cards that need to be sorted in the order the test subject thinks would be the right one.



Figure 2. Card sorting test: the cards to sort (Gessel)

After partaking in the card sorting test, a question list follows to ask the participant for their opinion about the selection of cards and the test. This information will be compared to the card sorting results of the professionals and to the interview results to see where the inexperienced students are missing skill or information to tackle the process. This will help in determining which elements of the product will need extra attention.

3.2 “What essentials are needed from UX/UI research and design for students and/or startups?”

The goal of sub question “What essentials are needed in UX/UI (in games) for students and/or startups?” is to find out what the most important information surrounding UX/UI knowledge would be (in games), so that the final product would carry on the best and correct information to the new interns.

This will be done by using the following methods:

3.2.1 Survey

A survey was conducted to ask several professionals about their background and understandings of UX and or UI. The survey (Appendix IV) has nineteen questions and it focuses on their personal experiences with both learning and working in the UX/UI field and their experiences with interns. With the help of this survey it will be easier to locate where the biggest problems lie in mastering UX and UI and how to make it the easiest to study and practice it.

The UX/UI (related) companies that were approached for this survey were found through a website called Clutch (Top UX Designers of the Netherlands - 2019 reviews | Clutch.co, 2019). It has a list of Dutch companies that work with UX/UI. Trough LinkedIn (LinkedIn, n.d.) some professionals also expressed their interest in this research and filled in the survey.

3.2.2 Card Sorting

The second step to researching this question is to do another card sorting test. Based on the models found in chapter 2.3 I had designed a card sorting test (see Figure 2). It consists out of 24 cards that need to be sorted in the order the test subject thinks would be the right one.

After partaking in the card sorting test, a question list follows to ask the participant for their opinion about the selection of cards and the test. This information will be used as the foundation of the selected workflow for the product.

3.2.3 Co-Reflection

The results from the card sorting test will be used to get feedback from the stakeholder and settle upon a definite workflow for the product. The stakeholder will have a say in what the contents of the product will be, since they will have to know and agree with the workflow that will be used in the future. It also must fit in the workflow the other aspects of the product development already have acquired.

3.2.4 Requirements List

After the co-reflection with the stakeholder a requirements list was made. This is more than just the tasks that need to be done. It will also include basic information that will be provided with each step. The requirements list will be a combination of all the card sorting tests and will be presented in the shape of steps to take in the process.

3.3 “What tool can best serve the product?”

The goal of sub question “What medium of education can best serve the product?” is to find the best medium or platform to carry the final product on, so it will be presented in the most useful way.

This will be done by using the following methods:

3.3.1 Personas

The persona will display a full profile of the ideal user of the product, the target group. The design choices should be in sync with what would suit the target group. It will disclose skills, goals, motivation, frustrations favourite platforms and their personality and background.

3.3.2 Concept

Since the content of the tool is already settled upon, the presentation of the content is the next most important aspect. The deliverable product must be interactive for the assignment, so there is a limit to what is feasible. A brainstorm session will deliver several ideas that the workflow could be implemented into.

3.3.3 Design Specification

To define what the product will look like, a design specification will be made. In this design specification the atmosphere, the style but also the intended experience with the tool will be documented and explained.

4 Results

In this chapter the results of the used research methods will be described. It is structured per research question, so that it is clear for what purpose the research was done and what results belong together.

4.1 “What barriers are preventing students from adopting proper UX/UI workflow?”

4.1.1 Interview

The interviewee stated (Appendix III) that a lot of research would be necessary before they could start a project. In school they did not get much education about it, so most of the knowledge they possess is self-taught. The things they struggle with most is how some terminology looks alike but does not mean the exact same thing. The differences in application also are not always clear. Another struggle concerning UX/UI research and design is to keep teams focused on the experience of the user. The most valuable and important aspects to this field are the users' feedback and finding problematic points. The interviewee would have liked to know earlier that UX research makes up most tasks in UX/UI roles and that UI is “just” the visual part that is in direct contact with the users. They think that a solid template of guidelines would help them sorting out when to gather certain information and what to use it for.

4.1.2 Card Sorting

The first testing subject had no experience whatsoever. They did the card sorting test based on logic and had a handful of big questions during the test (Appendix IX, X).

The second testing subject had had recent encounters with the topic, so was somewhat experienced. They did the card sorting test asking one or two questions (Appendix XI, XII).

The third testing subject was relatively experienced with UX/UI research and design because of relevant education. During the card sorting test they also only asked one or two questions (Appendix XIII, XIV).

4.2 “What essentials are needed from UX/UI research and design for students and/or startups?”

4.2.1 Survey

The survey was filled in by several professionals in the UX/UI field (Appendix V).

The things that stand out the most are how they all seem to have widely varying tasks, even though some described to have very similar functions in their companies. The source of their knowledge and skills seems to be relatively similar; which is experience. From the respondents the majority recommends practice as the best way to learn. They describe the most important things for their interns to learn to be mostly about work attitude and how the processes work. They agree on that

the most helpful thing for interns would be to just execute. Structured practical examples would help with where to start.

4.2.2 Card Sorting

The first test subject was very driven about the topic. He finished the test quite quickly and did not have any questions about the content of the test (Appendix XV, XVI).

The second test subject had a calmer way of approaching the test. He took a more time than the first test subject did but put more thought in his choices and did not ask any questions about the test. (Appendix XVII, XVIII).

The third test subject did ask some questions about the test and took the longest out of the three professionals (Appendix XIX, XX)

4.2.3 Co-Reflection

To make a definitive workflow it is important to show the stakeholder the results of the card sorting tests. They will make a final decision, combining what is generally recommended with what suits Stichting GameLab Oost. The stakeholder decided to, with the newfound information, participate in the card sorting test to make their own selection (Appendix XXI).

4.2.4 Requirements List

Inspired by the card sort test results from both the experts and the stakeholder, the final card sorting test result was formed (Appendix XXII).

The requirements list (Appendix XXII) consists out of steps to take in the UX/UI process. The whole process is spread out over the timespan of 20 weeks. There are 18 steps, so theoretically each step should take a maximum of one week. The steps are also done in 4 phases, of which each phase ends with a big test of the gathered information and/or of the done tasks and giving more information to work with for the next phase.

4.3 “What tool can best serve the product?”

4.3.1 Personas

Based on personal experience in Stichting GameLab Oost (observing the interns) and descriptions from the project manager, two personas (Appendix VI, VII) have been created that would fit the types of students that most commonly apply for an internship at Stichting GameLab Oost. Generally, both personas are familiar with tech and social media. One persona, Renske van Dijk, is a hard worker. She already researched and worked with UX/UI to some degree and has the basic knowledge necessary to perform tasks. The other persona, Emiel Kuijpers, has no experience with UX/UI and is mostly driven to learn about it to speed up the development process.

4.3.2 Concept

After a brainstorming session, researching, discussing it with the stakeholder and considering the precondition of how the product must be interactive, the most realistic medium to use is physical cards. An app or a website would be a great platform. However, considering the content, it would not result in a very easy to use product. On top of this, the means and funds of Stichting GameLab Oost are limited, since it is a foundation that does not revolve around creating profit. The cards will be like the CMD methods pack (HAN, HvA, n.d.).

4.3.3 Design Specification

The first thing that needed to be made was the user journey (Appendix XXIII, XXIV). To make a clear difference between the situations without and with the product, one flowchart displays the situation before the tool was developed, and one displays the situation after that.

The next design specification for the product was the wireframe (Appendix XXV) in which the layout of the cards got decided. The layout is based on the CMD methods pack (HAN, HvA, n.d.). This layout got tested in a paper prototype (Appendix XXVI) and the test subjects got asked some questions (Appendix XXVII, XXVIII, XXIX) in relation to the prototype. In terms of content the test subjects were not missing much, the only thing that got mentioned several times was using a bonus card system where tips and tricks could be noted for the user to remember while moving through the phases.

Lastly, the final design of the card deck was made (Appendix XXX). All the research from this thesis lead to this product. The colours are based on the Stichting GameLab Oost logo and as mentioned

before it is heavily inspired by the CMD methods pack (HAN, HvA, n.d.). The illustrations are meant to be direct and simple, to elaborate what the result of the task should look like.

5 Conclusion

Before starting the research, the research question “What tool can inform- and help interns with structurally applying UX/UI research and design in Stichting GameLab Oost?” was stated. This research question was split into three sub questions, of which each will deliver a part to the answer of the main question.

The first part of dove into the aspect of the interns’ involvement: it is necessary to understand what level they are at and what it is that they struggle the most with. The results delivered the information that for students (inexperienced people) terminology is a struggle and that considering the approach is time consuming because of the amount of information.

The second part covers the necessary knowledge for the interns: the product needs to convey relevant information that will be helpful in the development process. The results of the survey showed that professionals consider experience and “just practicing” without holding back to be the most important factors to learning about UX and UI. The card sorting test among professionals showed that there is a significant difference in preference, yet some level of agreement of that it should be approached in certain stages that have to be finished before one should move on to the next. This information was discussed with the stakeholder and a new structure was made with the card sorting method. It resulted in a workflow that would be relevant for Stichting GameLab Oost, since it has an approach that goes hand in hand with the general development process. Based on this, a requirements list was created to define what elements were necessary to include and in what order they should be.

The third and last part addresses what shape the product should take: it is important to create a product that is able to fulfil its purpose properly. This research resulted in the definition of the target audience by creating two personas, the types of people at Stichting GameLab Oost that would use the product. Since the earlier found information resulted in what content should be included in the product, consideration of how the content should be presented was necessary. Since the product needed to be interactive to a certain degree, the options were fairly limited for this concept. The concept of it being a method kit card deck managed to meet all the requirements so that became the presentation of choice. Lastly the design and function of this card deck were defined based on the target audience and a similar product.

Combining these findings resulted in the final product: a method kit card deck, of which every process step has its own card. The thorough explanation of the step and optional helpful programs and sources will be listed on the back of the cards, providing information that would not necessarily need to be researched before starting the project.

6 Discussion

For the first research question it was difficult to acquire many results. The previous two interns at Stichting GameLab Oost that worked as a UX/UI specialist were out of reach, so interviews with them were out of the question. It was only possible to interview one intern about the current level of UX/UI skills and knowledge, of which the results of course are not universally correct and therefore not very reliable.

To solve this problem, I could have approached second-year students to interview them. However, there is the matter of that the course of UX/UI advanced classes, which would take them to the level of where new Stichting GameLab Oost interns would be, are being taught in the second quartile of the year. Interviewing them before taking these classes would not give a representative result of what knowledge and skill they have when they start their internships. This would significantly decrease the validity of the results of the interview.

The survey I had conducted amongst UX/UI professionals is reliable; however, looking back at it later I noticed that some of the questions were irrelevant to my research. This does decrease its validity, but that does not apply to the survey in its entirety.

I could have reviewed the survey questions more before sending it out, to remove the irrelevant questions. Next time I should review it with another person, so the second opinion could filter such problems out.

The card sorting tests do not give 100% reliable results. The next time they would be executed by the professionals and inexperienced test subjects under the same circumstances, some (if not all) cards could end up in different positions due to the subjective nature of what is being tested.

This problem could be solved by giving the test subjects less cards to sort and to use less sub-tasks for them to sort. A less detailed card might be put in the same place more frequently. A negative side to that would be that the less detailed a choice becomes, the more it is left up to interpretation and the more explanation it would need. If more information is given to the person performing the test, it might decrease the results' validity because it would provide them with knowledge the test needs to measure.

7 Recommendations

To make sure this product is being used properly it is recommended to have the interns work together and make sure the person in charge of UX/UI can use the results of their research to have influence in the product. UX/UI research and design are often underrated, which results in this aspect getting brushed over. This can lead to tension in driven teams because UX/UI forces designers and engineers to take a step back and think of the purpose and user interpretation of the product, instead of only regarding their own perspective.

To use this product and experience its full potential I would recommend to my client to be more transparent towards interns from the beginning about what kind of working system is being used. Stichting GameLab Oost works with students from varying studies and not all of them are familiar with development processes. Since this product could end up being used by anyone; both skilled and unskilled individuals, some prior information about how Stichting GameLab Oost works internally would be beneficial. Naturally, the project manager must guide the students and should give them tasks to work with, but the project manager is the sole “tutor” and might not always have the time or required skill to help people individually.

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10 Appendix

I Interview with project manager

What is the current UX/UI methodology in UX/UI in GameLab Oost?

Intern does the UX/UI work throughout the 20 weeks. Not always perfect, so re-do it at phase 2.
Look at intern's work and improve it until it works with help from Conceptlicious.

What is the problem with the current UX/UI in GameLab Oost?

Not always a UX/UI intern available, or poor quality which makes it more time consuming and more expensive because Conceptlicious has to fill in the gaps.

What is UX/UI missing in GameLab Oost?

Interns: now knowing what to do, how to test prototypes and implementing findings into an actual product. No systematic order in the production.

What will improving the UX/UI system deliver to GameLab Oost (and Conceptlicious)?

Quality of product increases and saves Conceptlicious time and money that they are currently spending working on GameLab.

What will improving the UX/UI system deliver to your interns?

Better education for interns (better prepared for future jobs/startup). Speeds up the design process because there is a clear system.

II Interview With UX/UI Intern Questions

1. **“Wat houdt UX/UI in voor jou?”**
2. **“Zou je weten waar je moet beginnen bij een nieuw project?”**
3. **“Wat vond jij de meest interessante en/of belangrijke informatie uit de UX/UI lessen?”**
4. **“Zijn er begrippen die je moeilijk vindt?”**
5. **“Zijn er onderdelen die je moeilijk vindt?”**
6. **“Wat is de belangrijkste informatie die je zelf geleerd/ontdekt hebt?”**
7. **“Vind je dat je iets mist qua kennis of vaardigheden wat betreft UX/UI?”**
8. **Wat zou jou helpen bij het uitvoeren van UX/UI onderzoek en design?”**

III Interview With UX/UI intern

1. “Wat houdt UX/UI in voor jou?”

Apart nemen, UX: kijken of elk moment van interactie een goede interactie is. Kloppend, gevoel overdragen

UI: Informatie doorgeven, flow tussen alle screens etc.

2. “Zou je weten waar je moet beginnen bij een nieuw project?”

Vooronderzoek nodig, lastig om zo veel informatie in een specifieke volgorde te plaatsen.

3. “Wat vond jij de meest interessante en/of belangrijke informatie uit de UX/UI lessen?”

Paar UX/UI lessen, heel minimaal. Niet per se iets heel interessants.

4. “Zijn er begrippen die je moeilijk vindt?”

Tools zoals user stories, user flows, user journeys, persona's, alles onderscheiden.

5. “Zijn er onderdelen die je moeilijk vindt?”

Denkt altijd vanuit je gebruikers oogpunt, maar groep niet. Heel erg je punt verdedigen omdat de rest het daar niet mee eens is.

6. “Wat is de belangrijkste informatie die je zelf geleerd/ontdekt hebt?”

Veel waarde in constant om feedback vragen bij gebruikers. Meest waardevolle informatie is wat de gebruiker wil geven. Probleempunten ontdekken.

7. “Vind je dat je iets mist qua kennis of vaardigheden wat betreft UX/UI?”

UX is het middelpunt, en UI is wat het dichtst bij komt bij de gebruiker.

8. “Wat zou jou helpen bij het uitvoeren van UX/UI onderzoek en design?”

Een template waar je vanaf kunt werken, richtlijnen. Veel informatie en heel breed. Zwaar en dan het spoor bijster raken.

IV UX/UI professionals survey questions

What is your exact function title?

What branch is your company in?

What are your most important work activities?

What do you struggle with the most?

What are the most positive points of your profession?

What do you think someone needs to become an expert at UX/UI? (Character traits but also skills)

What do you think would make someone a bad UX/UI designer?

What or who taught you the most about UX/UI design?

What do you wish you had learned earlier?

What have you experienced as an effective way of learning UX/UI?

What is your biggest source of UX/UI developments?

Do you have experience with interns?

Yes:

1. What tasks did your interns have?
2. What do you want your interns to learn?
3. What do your interns struggle with the most?
4. What do you think would help students with learning more (efficiently) about UX/UI?

No:

1. What task would you give interns?
2. What would you want interns to learn?
3. What do you assume they would struggle with the most?
4. What do you think would help students with learning more (efficiently) about UX/UI?

V UX/UI professionals survey results

1. Wat is precies uw functietitel?

Human Resources

UX/UI designer

Docent

UX Researcher & Designer

Product Owner

User Experience Designer

UI/UX-designer

UX/UI Designer

2. Voor welk bedrijf werkt u?

TRIMM

Less or More

Saxion

Less or More

Creative ICT

Guerilla Games

Bureau Bright

52DN (FiftyTwoDegreesNorth)

3. In welk vakgebied werkt uw bedrijf? (Marketing, games, vormgeving, etc.)

Full service digital agency

Digitale applicaties, MKB tot multinational

Games, vormgeving, animatie

Research, design & consulting

Marketing, eCommerce en maatwerk webdevelopment

Games

Inbound Marketing

Wij zijn gespecialiseerd in het maken van mobiele applicaties en integrated software. Waarbij we een totaaloplossing bieden voor onze klanten. Van strategie tot development, design en onderhoud.

4. Wat zijn uw meest belangrijke werkzaamheden?

Werving & selectie, duurzaamheid werknemers waarborgen, talent management, opleiden & trainen.

Process design, screen design

doceren

Research en UX design

Product backlog onderhouden, grip op projecten houden, processen ontwikkelen en het team van uitvoerders faciliteren en ondersteunen.

Communicatie faciliteren tussen teams

CRO, design complete websites & portals d.m.v. UX, usability optimalisaties, complete website reviews & adviesrapport/backlog.

Het opzetten van customer journeys, gebruikers onderzoek, het uitwerken van wireframes & prototypes en designen van de uiteindelijke ui interfaces van een mobile app of webapplicatie

5. Waar heeft/had u binnen uw beroep het meeste moeite mee?

De werving van developers, deze zijn schaars in het Oosten.

Werken met bedrijven die zeggen te geloven in de toegevoegde waarde van UX maar daar niet naar handelen.

Werkdruk

Het belang en de waarde van UX in hogere lagen van de bedrijven waarvoor wij werken te laten begrijpen

Mensen uit huidige processen halen in meer effectievere processen en grip op projecten krijgen die ik niet gestart heb. En af en toe mis ik het uitvoeren.

Samenwerken met dominante persoonlijkheden

- 1) Aannames maken in de launchpad fase indien geen goede persona's/buyer journeys aanwezig zijn.
- 2) Niet goed ingestelde Analytics.
- 3) Klanten die geen geld willen steken continu meten en bijsturen (growth driven design).

Het moeilijke binnen mijn vak is het inleven in de gebruiker van een bepaalde applicatie. Hoe denkt iemand, hoe gebruikt iemand een bepaalde app en waar moeten we rekening mee houden om ervoor te zorgen dat hetgeen wat we maken aansluit en gebruiksvriendelijk is voor die gebruiker.

6. Wat zijn de positieve punten aan uw beroep?

Elke dag is anders.

Je kunt dingen creëren, verbeteren. Een positieve impact hebben op iemands gebruikservaring.

In aanraking komen met veel verschillende facetten van een bedrijf. Afwisseling.

Klantinteractie

Gevarieerd werk. Je tanden kunnen zetten in een onderwerp en daar gedegen onderzoek naar doen. Dingen mogen uitproberen, mogen falen en opnieuw proberen. Leuke collega's en goede bedrijfscultuur. Strategisch mee kunnen beslissen, waardering uit het team krijgen voor de ondersteuning en het beantwoorden van hun vragen.

Je hebt een unieke mogelijkheid om te verduidelijken, een grote bijdrage te leveren aan het eindproduct, hele teams dichtbij elkaar brengen door een focus op het grotere plaatje.

- 1) Altijd iets creatiefs kunnen neerzetten waar je trots op kunt zijn.
- 2) Super positieve reacties van klanten en klanten van klanten (heb een complimenten mailboxvakje).
- 3) Optimalisaties die doorgevoerd zijn die daadwerkelijk werken en zorgen voor meer conversie en lagere kosten.

Ik persoonlijk vind het interessant om in een nieuw vraagstuk te duiken. We hebben verschillende klanten in verschillende sectoren/vakgebieden waar je nog nooit mee te maken hebt gehad. Dat maakt de uitdaging des te leuker om een goed bruikbaar product neer te zetten met het team. Het maken van iets tastbaars iets visueels en bruikbaars wat een toegevoegde waarde heeft voor een groep gebruikers vind ik heel leuk om te doen.

7. Wat denkt u dat iemand nodig heeft om een UX/UI professional te worden? (Denk aan zowel persoonlijkheid als vaardigheden)

Creativiteit, skills om met verscheidene programma's te werken, flexibiliteit, open kunnen staan voor feedback, op de hoogte zijn van de ontwikkelingen op zijn/haar vakgebied.

Geduld. Kunnen luisteren. Empathisch vermogen. Kritisch zijn. En vooral veel interesse.

Overzicht van de theorie mbt. UX / UI, Ervaring in het vakgebied, Kunnen testen, tegen kritiek kunnen

Goed zijn in (zelf)reflectie en analytisch kunnen denken. Goede presenteer skills en goed in discussies qua beargumenteren.

UX of UI? Dat zijn niet dezelfde functies. "You are not the user" moet in gegraveerd zijn in het brein in beide gevallen. Bij UX moet je vooral onderzoekende houding hebben en bij blijven in je vakgebied. Wil de "Waarom" weten. Bij UI moet je kunnen accepteren dat je bij sommige onderdelen weinig vrijheid hebt Maar wel gevoel voor design

Soft skills. Omgaan met grootse onzekerheid.

1) Leergierig zijn en continu blogs, evenementen, e.d. blijven volgen, de technologie gaat razend snel.

2) Feedback is je vriend, aan jou de taak om iedereens mening te ontvangen en hier jouw keuzes mee te maken.

Ik denk dat het belangrijkste is om inlevingsvermogen te hebben. Je moet je kunnen verplaatsen in de gebruiker om er achter te komen waarom iemand bepaalde keuzes maakt en hoe een gebruiker tot die keuzes komt zodat je iets goeds bruikbaar kunt opleveren. Verder moet je communicatief goed onderlegd zijn omdat je veel samenwerkt, zowel met de klant, de gebruiker maar ook je interne team van designers en developers. Verder moet je een teamplayer zijn, gevoel voor design hebben, sketch/photoshop ervaring hebben, wireframes kunnen uitwerken en leergierig zijn.

8. Van welke eigenschappen of gewoontes bent u van mening dat het iemand een slechte UX/UI designer maakt?

Wanneer de UX/UI niet openstaat voor feedback van anderen.

Niet van een eigen mening of aannames af kunnen stappen, eigen voorkeuren doordrijven.

Gebrek aan ervaring, Niet tegen kritiek kunnen, niet openstaan voor feedback

Als mensen er vanuit gaan dat als zij het snappen, iedereen het snapt. Een goede UX'er verifieert.

Een goede UI designer krijgt positieve feedback van een goede UX'er

Niet openstaan voor anderen (feedback)

Niet luisteren naar de mening van anderen. Als UX designer heb je te luisteren naar iedereen die betrokken is bij het product, van sales, marketing tot de consument. Hieruit haal je input en trek je conclusies. Wees niet bang om nee te zeggen.

Ik denk dat als je je niet kunt verplaatsen in de gebruiker waarvoor je iets maakt dat het heel lastig wordt. Niets willen aannemen van anderen en denken dat alleen jouw manier de beste is werkt niet voor een UX/UI designer.

9. Van wie of wat heeft u het meeste geleerd over UX/UI (design)?

Niet specifiek 1 persoon, maar meerdere collega's in combinatie met literatuur op Google.
Door te doen en te falen. Verder door te werken met kritische maar constructieve collega's.
Literatuur, en ervaring
Dat is heel breed. Van artikelen en boeken tot collega's en eigen falen.
Internet; nielsen norman group, baymard, enkele andere blogs en verschillende podcasts (UX podcast, presentable en meer)
Mijn HBO opleiding in communicatie en multimedia, mijn klasgenoten en mijn collega's.
De praktijk. Doen, fouten maken, verbeteren en weer doen. Elk project wordt je beter en leer je meer.
Verder heel veel blogs lezen.
Jeroen de Jong & Rory de Graaf

10. Wat had u graag eerder willen leren/weten over UX/UI?

Dat er nog zoveel meer diepgang zit in UX/UI. UX mensen hebben hele andere capaciteiten dan bijvoorbeeld UI mensen. Daarnaast zou je UX ook weer kunnen onderverdelen in verschillende categorieën, waarbij elke categorie zijn/haar eigen specialisme heeft. Ik had niet door dat het niet stopt bij enkel 'ik ben een UX/UI designer'.
Welk gedeelte van het UX spectrum het best bij mij aansluit.
gestalt principes, Manieren van testen
Dat het tien jaar geleden al bestond toen ik van de kunstacademie af kwam.
Dat het vinden van een baan er in heel moeilijk is en het zwaar ondergewaardeerd wordt.
Weet ik niet
Eye-tracking, nog steeds te duur ;)
Dat het draait om de gebruiker

11. Wat heeft u als effectief ervaren bij het leren over UX/UI?

Dat het met name over de beleving van de klant gaat.
Veel lezen. Itereren. Kritisch kijken naar je eigen proces. Wat gaat er goed, wat kan er beter en wat werkt niet?
Gestalt, Higs law, fits law, kleurtheorie
Dat je dingen direct toepast en daarvan kan leren.
Veel beter zicht op wat gebruikers wel en niet willen en dat onderbouwen met bronnen ipv aannames
Oefen het uit in de praktijk ook al is het een nep opdracht die je zelf bedacht hebt. Het liefst in samenwerking met anderen. Zoals hobby projecten
Doen doen doen. Feedback.
Gewoon doen en niet bang zijn om het verkeerd te doen. Laat je werkt aan je collega's zien en vraag wat ze goed vinden of juist niet goed vinden.

12. Wat is/zijn uw voornaamste bron(nen) van UX/UI informatie en ontwikkelingen?

Collega's, maandagmorgen overleg en bronnen op internet.

Collega's, kennissessies en internetartikelen.

Praktijk analyse

medium.com en alle verwante UX sites

Nielsen Norman Group, Baymard en Wolfsgang had ook wel wat leuke onderzoeken.

Praktijk voorbeeld, bijvoorbeeld een nieuw product en wat daar wel of niet van werkt door te kijken naar reviews etc. Uiteraard nieuws websites en boeken

Verschillende design, ux en marketing blogs. Heel veel evenementen bezoeken. Zelf blijven testen met bijv. A/B-testen.

Medium, Invision

13. Heeft u ervaring met stagiaires?

Ja

Ja

Ja

Ja

Ja

Nee

Ja

Ja

14. Welke werkzaamheden kregen/krijgen uw stagiaires?

Het organiseren van meet-ups, aannemen van nieuwe stagiaires/werkstudenten/werknemers, opstellen van een alumniplan. Weinig te maken met UX/UI werkzaamheden aangezien dat niet onder mijn functie valt. Ze draaien mee op projecten voor opdrachtgevers. Afhankelijk van de behoefte van de stagiair werken ze daar aan UX of UI.

3d modelleren

Research, UX en UI

Side projects waar wij geen fulltimer op willen/kunnen zetten maar wel toegevoegde waarde kunnen zijn

Ondersteunde opdrachten van huidige projecten, kleine klantjes, eigen bedrijf opdrachten.

Het uitwerken van wireframes, ui designs, handoff van verschillende assets richting het development team.

Meedenken en ideeën aandragen, bijwonen van klant gesprekken

15. Van welke dingen vindt u het belangrijk dat uw stagiaires ze leren?

Verantwoordelijkheid durven nemen. Daarnaast wil ik dat ze zich nooit bezwaard voelen om vragen te stellen. Initiatief nemen is ook een belangrijke factor. Op die manier stomen we ze klaar voor de toekomst en laten we ze grenzen verleggen. 'Mensen kunnen meer dan dat ze zelf denken'.

Hoe geen vraagstuk een vaste oplossing heeft maar hoe ze kunnen bepalen wat er nodig is.

Niet meer van toepassing

Volledig afhankelijk van de interesse van de stagiaires. Maar het lijkt mij goed dat ze van alles een beetje proeven. Zelf heb ik een grafisch ontwerp achtergrond maar ben tegenwoordig veel meer into research dan UI.

Hoe je moet werken in een team, bij een werkgever met consequenties.

Zelfstandigheid en zelfverzekerdheid. Je bent zelf expert, zo mag je je ook gedragen.

Het proces over hoe je een UX/UI project aanvielt. Waar begin je mee, welke stappen neem je en hoe zorg je ervoor dat je maakt waar de eindgebruiker wat aan heeft. UX/UI is heel breed en bestaat uit heel veel verschillende disciplines, het is onmogelijk overal een expert in te zijn. Door het proces te leren en te leren welke vragen je jezelf en de klant/eindgebruiker kunt stellen om tot een beter eindproduct te komen is heel waardevol.

16. Waar hebben/hadden uw stagiaires het meeste moeite mee?

Het leren kennen van de organisatie, op zowel strategisch, tactisch als organisatorisch niveau.

Vanuit niets op gang komen. We laten ze behoorlijk vrij bij ons.

niet meer van toepassing

De snelheid en de druk binnen bestaande projecten bij te benen. School kan je er zoveel tijd in steken als je zelf wilt terwijl bij een klant dat niet tot de mogelijkheden behoort.

Ik begeleidde de stagiaires niet dus geen idee

Verschillend. Ik persoonlijk met creativiteit en ux die vaak botsen. De UX-designer vs de art director.

Het kunnen denken vanuit de eindgebruiker.

14. Welke werkzaamheden zou u stagiaires geven als u die had?

1.

Werken aan een stukje van het product wat we graag willen verbeteren, waar we zelf niet genoeg tijd voor hebben, en wat redelijk op zichzelf staat.

15. Wat zou u uw stagiaires het liefst (aan)leren als u ze had?

t

Plezier in het vak, omgaan met mensen, leergierig zijn

16. Waar zouden stagiaires veel moeite mee hebben denkt u?

De complexiteit van het vakgebied

17. Wat denkt u dat studenten zou ondersteunen bij het leren over/van UX/UI?

Een interactieve, niet al te lastige, opdracht uitvoeren. Alleen maar luisteren werkt niet meer bij de generatie van nu. Ze moeten voelen, ervaren wat UX/UI precies is. Je zou de opdracht wel meer flair kunnen geven door bijvoorbeeld wat informatie te geven en wat voorbeelden van eigen werk.

Vooraf veel ervaring opdoen. Zelfredzaamheid.

Analyse van bestaande elementen, theoretische kennis

Praktische voorbeelden en used cases om direct dingen op toe te passen

Een duidelijk beeld van de werkzaamheden

Een mentor

Gewoon aan de slag gaan.

Werken met echte klanten en in teams met verschillende disciplines. Niet gelijk achter je computer duiken, gebruik een whiteboard, teken flows uit, overleg met je team.

18. Heeft u interesse in mijn onderzoek, staat u ervoor open om later weer wat vragen te beantwoorden of bent u geïnteresseerd in Stichting GameLab Oost? Laat dan hier uw gegevens en motivatie (Bijv: naam, bedrijfsnaam, e-mailadres, telefoonnummer) achter zodat ik zo spoedig mogelijk contact met u kan opnemen

Nee, UX/UI valt niet helemaal in mijn vakgebied

Ruud Crommentuijn / ruud@lessormore.nl

t.vanloon@saxion.nl

-

tristanschaaf@gmail.com

B.buchner@live.nl

Diana, je hebt mijn nummer.

Danny, 52DN, danny@weare52dn.com. Ik ben wel benieuwd naar de resultaten van je onderzoek.

19. Heeft u nog op- of aanmerkingen of tips voor mijn onderzoek?

Ik wil je heel veel succes wensen met je afstuderen!

Heel veel succes met het onderzoek! Ik zal het sowieso intern delen.

geen

-

Niet direct

Ondanks dat er veel theorie is, gaat dit zo razend snel, dat iets dat in 2018 key was nu al achterhaalt is.

Kijk niet verder dan 1 jaar terug als je informatie zoekt over specifieke onderdelen! De basis/theorie van UX blijft hetzelfde, de uitwerking verandert razend snel.

Boek aanrader: lees de boeken van Cialdini!


-

VI Persona: Emiel Kuijpers

PROJECT: Renske van Wijk

NAME
Emiel Kuijpers

TYPE
Artisan



Quote
I would like to learn what it means to be doing UX/UI for (serious) games

Background

Emiel is a calm student that usually finds himself to be more comfortable when he doesn't stand out in social situations. He is more of an observer and analyzer. He has a handful of close friends he cherishes a lot, since he can be comfortable and himself around them. On days off he likes to play games, watch shows and hang out on the internet.

Demographic

Male 19 years

Enschede, Netherlands

Single

Student

<1500 euros

Goals

- Learn the basics of UX/UI
- Learn more about UX/UI for serious games

Motivations

- Creating UX/UI for a serious game
- Learning about developing a serious game

Frustrations

- Unclear instructions
- Unclear goals

Skills

Empathy

0 25 50 75 100

Communication

0 25 50 75 100




Interface Design




0 25 50 75 100

Design Thinking



0 25 50 75 100

Technology

















Browsers

Google Chrome
Firefox

Channels

VII Persona: Renske van Wijk


PROJECT: Renske van Wijk

NAME

Renske van Wijk

TYPE

Guardian



Quote

“ I would like to acquire a more systematic approach when it comes to UX/UI ”

Background

Renske is a hardworking student that is always looking for a social happening to take part in. She has a deep interest in human behavior and likes to look beyond the surface, both with people and the projects she works on. On days off she likes to read books and watch netflix or meet up with friends and family.

Goals

- Improve UX/UI skills
- Learn how to implement client's wishes

Motivations

- Creating user-friendly experiences
- Implementing client's wishes
- Not overlooking any usability flaws

Frustrations

- Inefficient systems
- Time consuming learning process

Demographic

Female 21 years

Enschede, Netherlands

Single

Student

<1500 euros

Skills

Empathy

0 25 50 75 100

Communication

0 25 50 75 100

Interface Design

0 25 50 75 100

Design Thinking

0 25 50 75 100

Technology

Android Apple Windows

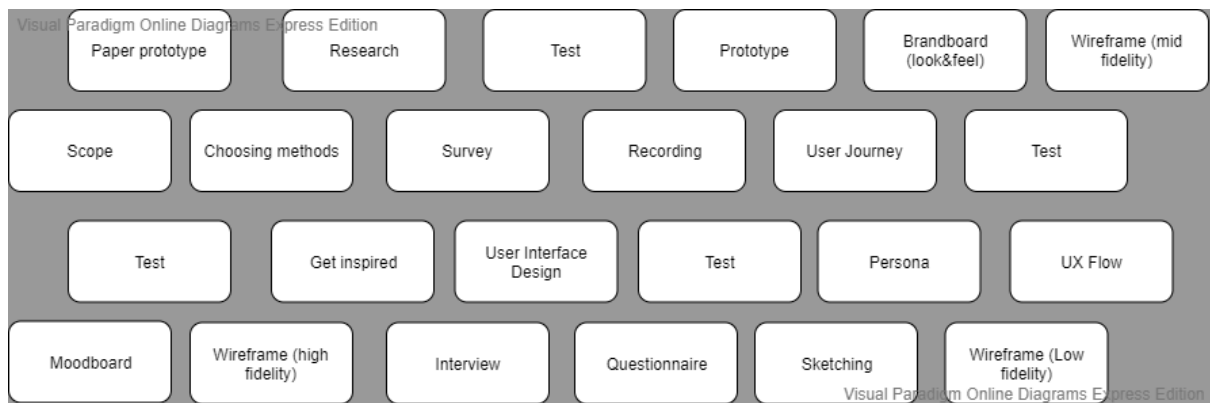
Browsers

Google Chrome

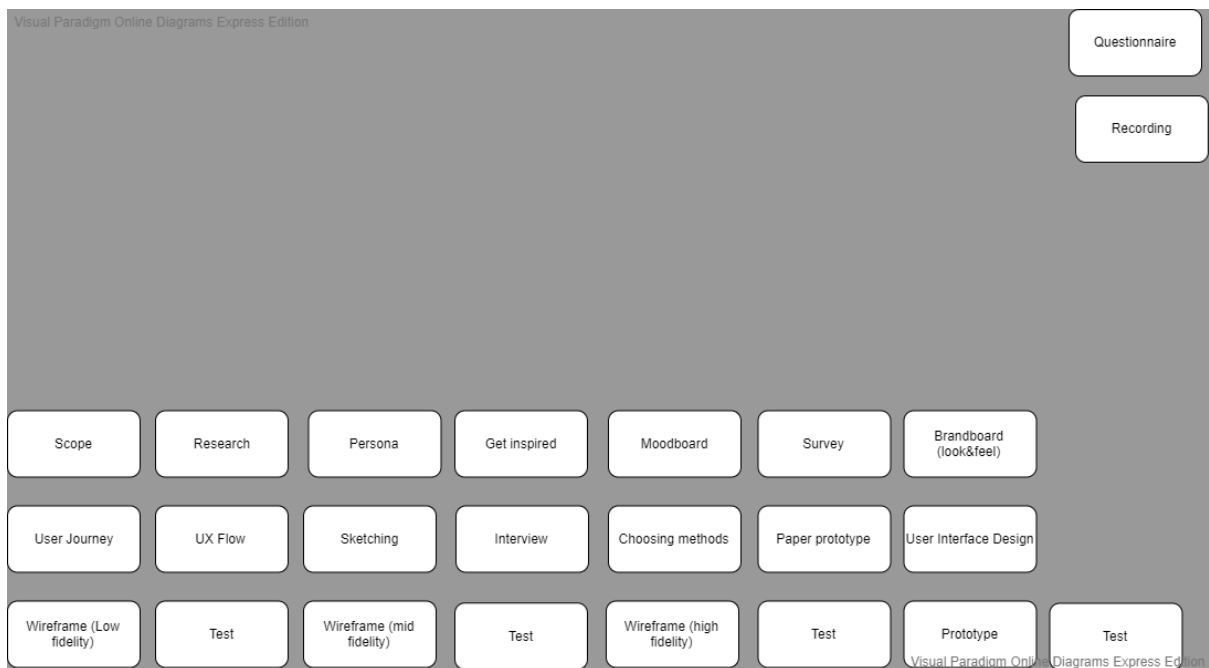
Channels

Phone Laptop Mobile Netflix Snapchat Spotify WhatsApp Messenger Facebook Instagram YouTube Pinterest

VIII Card sorting test: the cards to sort



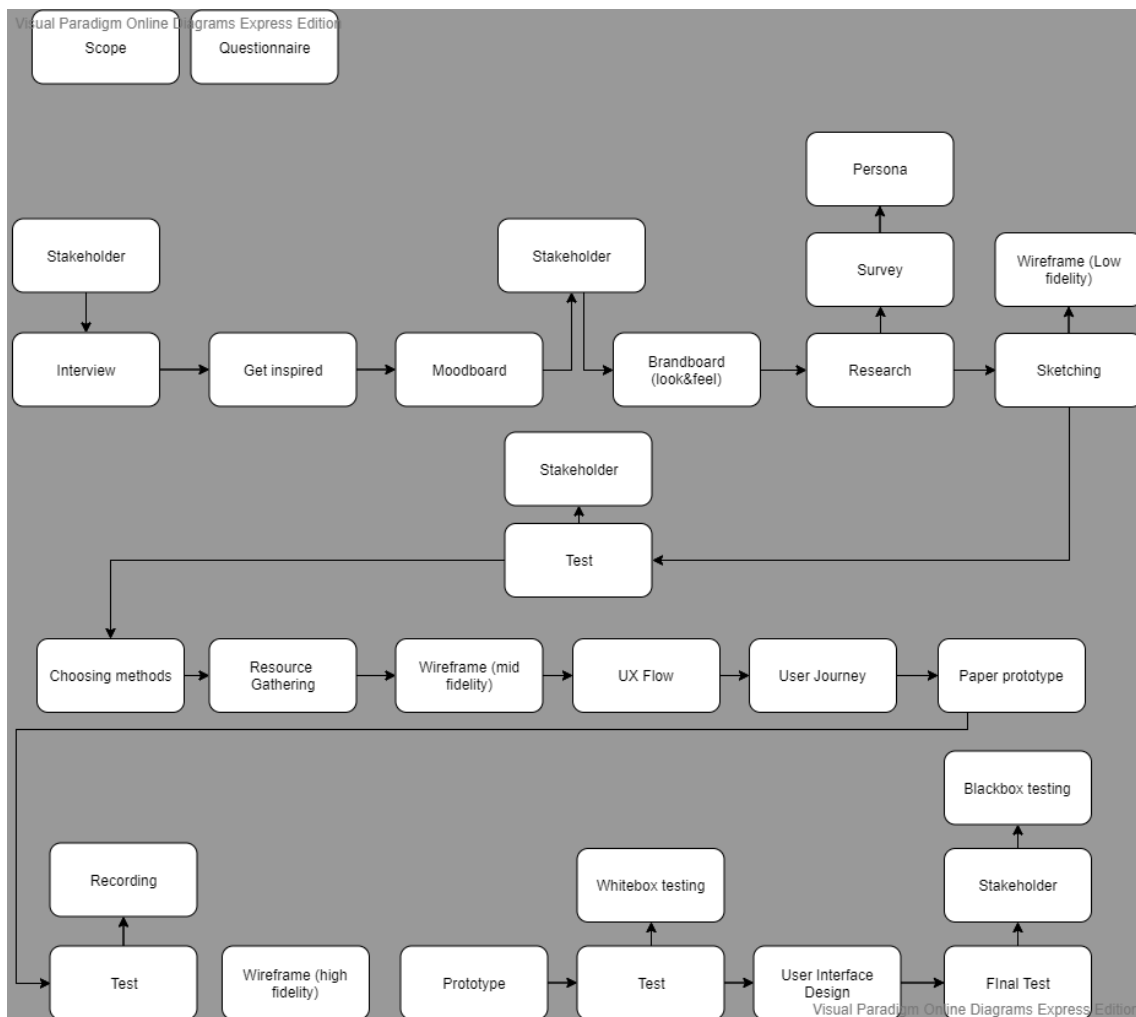
IX Card sorting test results: Inexperienced person 1



X Card sorting test results: questionnaire person 1

1. What skill/knowledge level do you consider yourself to be at? Rate from 1 to 10.
6
2. Why did you choose this specific order?
X
3. Anything you did not understand?
Terminology → recording
4. Anything new that you learned?
Terminology, contents of design process
5. Things that felt useless?
Recording & Questionnaire
6. Anything you feel like is missing from these options? What kind of information would you like to have with these options?
X
7. Anything to add to this card sort?
X

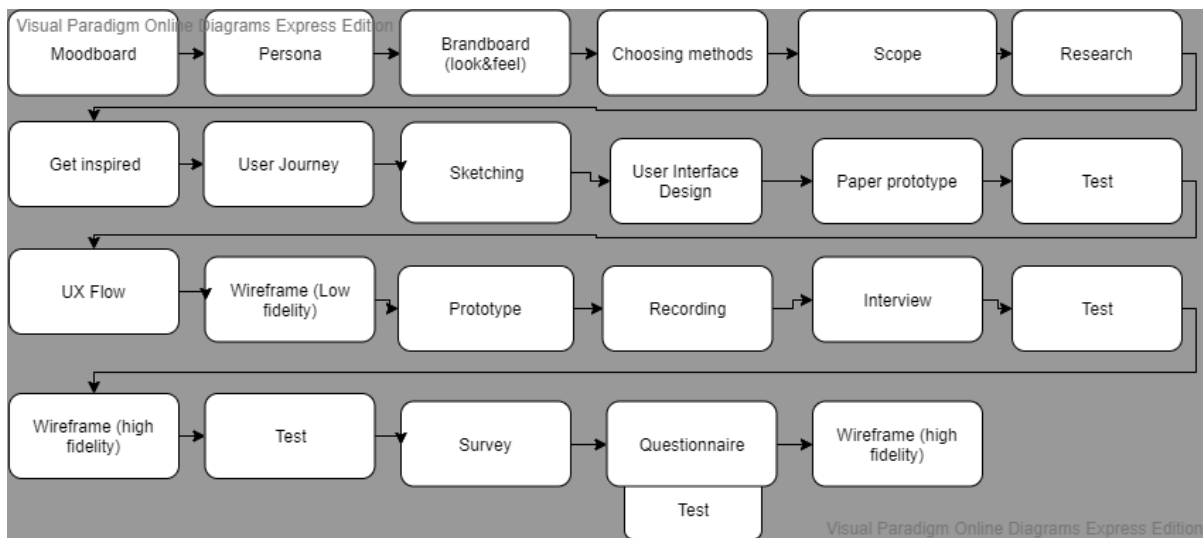
XI Card sorting test results: inexperienced person 2



XII Card sorting test results: questionnaire person 2

1. What skill/knowledge level do you consider yourself to be at? Rate from 1 to 10.
7
2. Why did you choose this specific order?
Informatica classes -> "project management"
3. Anything you did not understand?
Terminology
4. Anything new that you learned?
Application of knowledge, there's multiple right methods
5. Things that felt useless?
Questionnaire, Scope. (Felt like the same as survey, felt like the same as choosing methods)
6. Anything you feel like is missing from these options? What kind of information would you like to have with these options?
More specific methods for testing, cards for getting back to stakeholder
7. Anything to add to this card sort?
Stakeholders, blackbox & whitebox testing, resource gathering.

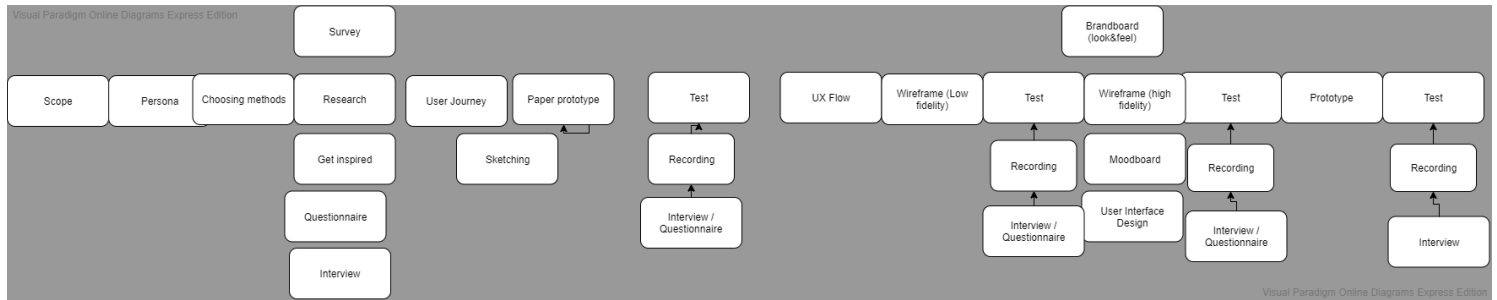
XIII Card sorting test results: inexperienced person 3



XIV Card sorting test results: questionnaire person 3

1. What skill/knowledge level do you consider yourself to be at? Rate from 1 to 10.
7
2. Why did you choose this specific order?
Little bit of experience, analysing interfaces
3. Anything you did not understand?
terminology
4. Anything new that you learned?
Terminology, "fidelity"
5. Things that felt useless?
X
6. Anything you feel like is missing from these options? What kind of information would you like to have with these options?
More prototypes cards, (A & B), making more concepts
7. Anything to add to this card sort?
Extra prototype cards

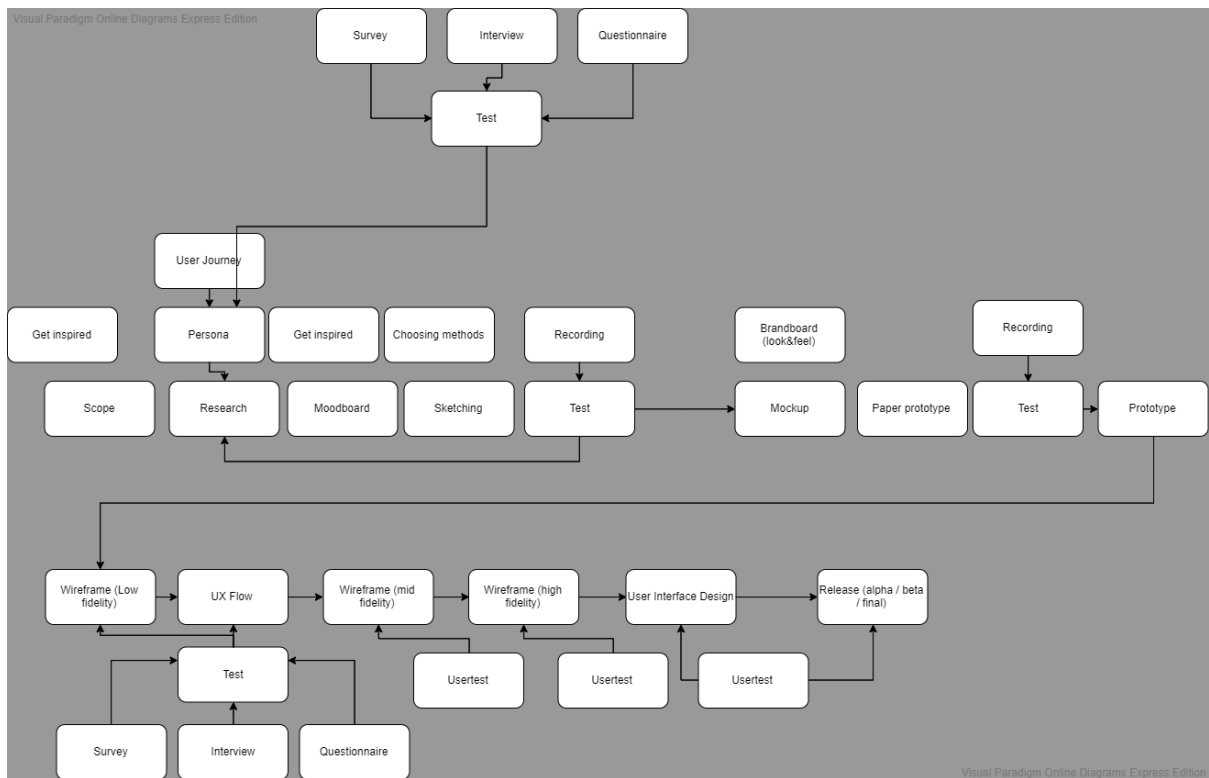
XV Card sorting test results: experienced person 1



XVI Card sorting test results: questionnaire person 1

- 1. What skill/knowledge level do you consider yourself to be at? Rate from 1 to 10.**
8
- 2. Why did you choose this specific order?**
Vooral inlezen, ervaren, design thinking.
- 3. Anything you did not understand?**
Alles begrijpelijk
- 4. Anything new that you learned?**
Nee.
- 5. Things that felt useless?**
(2x high fidelity) Effectief. Niet per se.
- 6. Anything you feel like is missing from these options? What kind of information would you like to have with these options?**
Usability testing, "waar verwacht je dat deze functie", "test" kan specifieker. Meerdere soorten tests kunnen meerdere keren toegepast worden
- 7. Anything to add to this card sort?**
Scope redefining, ideation mist. Meerdere prototypes bouwen.

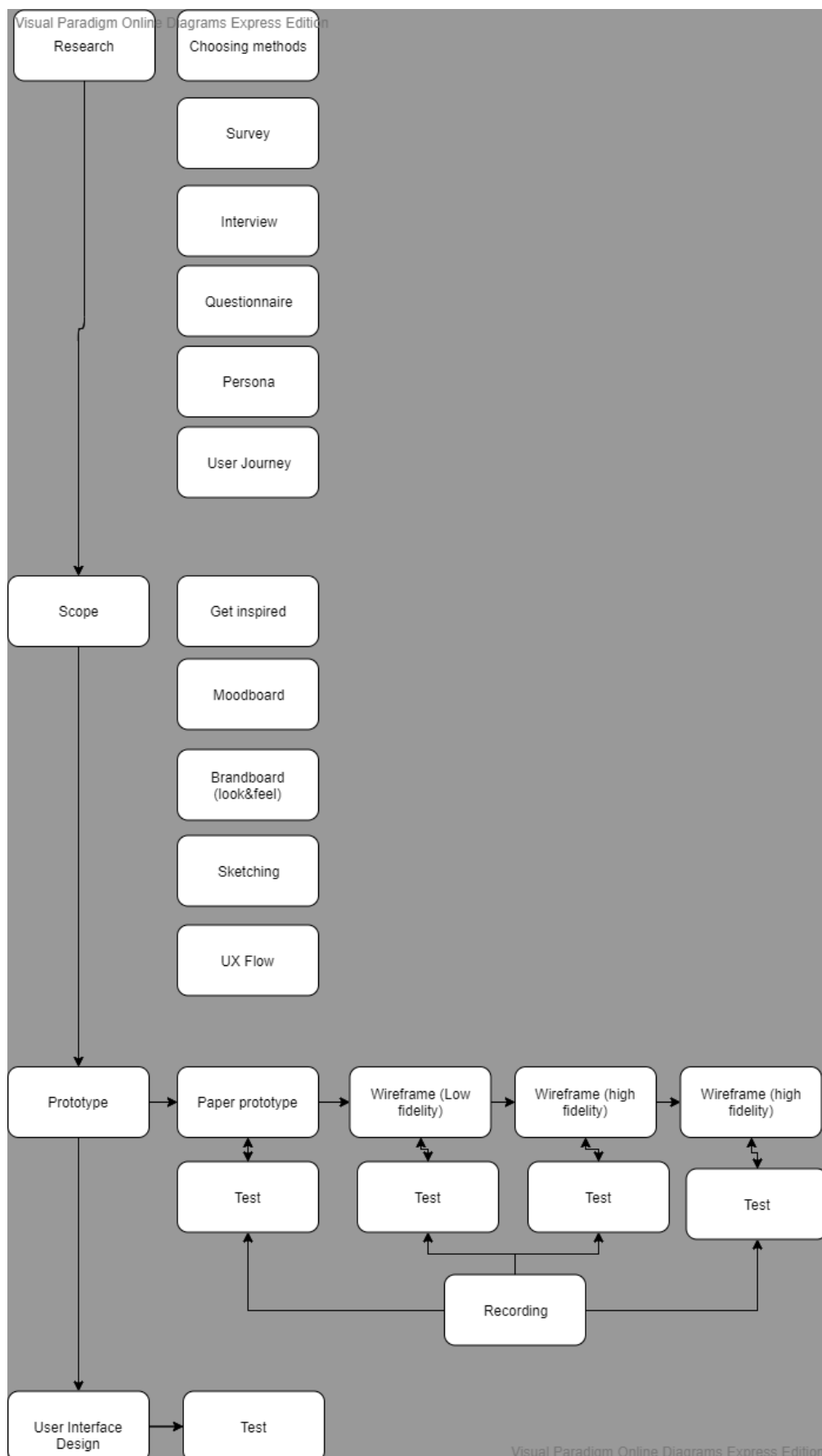
XVII Card sorting test results: experienced person 2



XVIII Card sorting test results: questionnaire person 2

1. What skill/knowledge level do you consider yourself to be at? Rate from 1 to 10.
7
2. Why did you choose this specific order?
Based on practice, guiding students. Theoretical foundation.
3. Anything you did not understand?
X
4. Anything new that you learned?
Overview was nice, getting a view on the pipeline is interesting.
5. Things that felt useless?
X
6. Anything you feel like is missing from these options? What kind of information would you like to have with these options?
More structure, defining cards more. What types of tests maybe. User testing.
7. Anything to add to this card sort?
Difference between research and user testing.

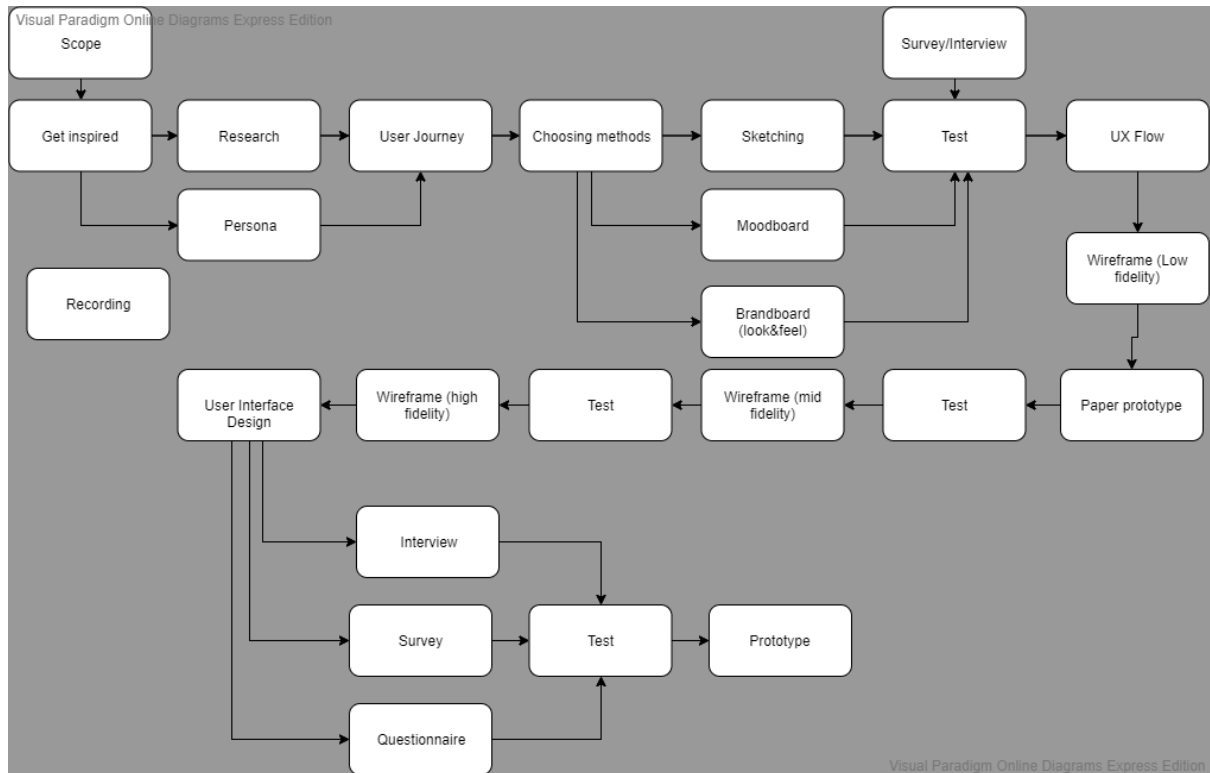
XIX Card sorting test results: experienced person 3



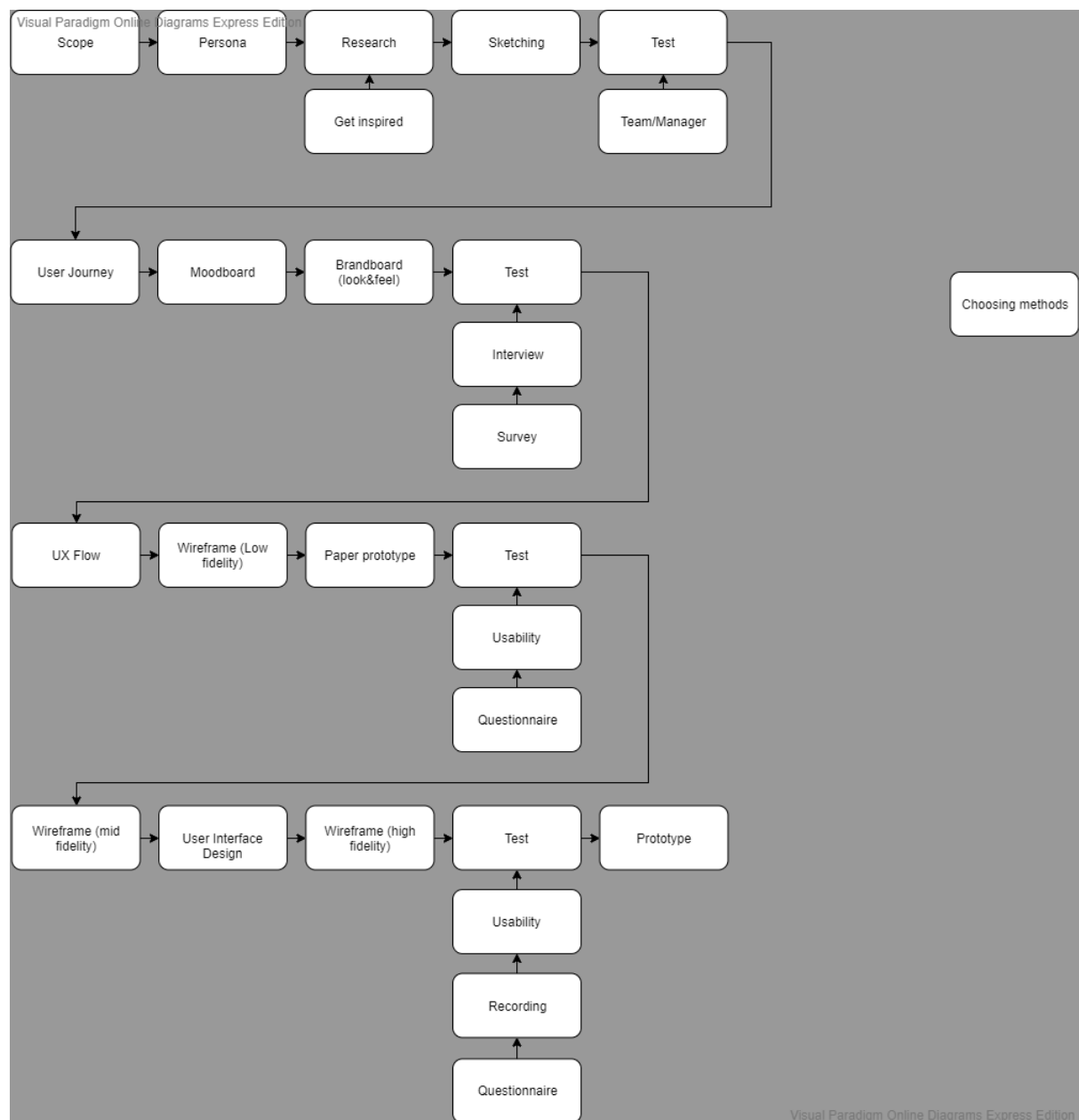
XX Card sorting test results: questionnaire person 3

- 1. What skill/knowledge level do you consider yourself to be at? Rate from 1 to 10.**
8
- 2. Why did you choose this specific order?**
Experience, theory
- 3. Anything you did not understand?**
3 phases in wireframe, how to test wireframe??
- 4. Anything new that you learned?**
Fidelities of wireframes
- 5. Things that felt useless?**
Phases in wireframes. Only 1 wireframe should be enough.
- 6. Anything you feel like is missing from these options? What kind of information would you like to have with these options?**
Programs, content & information. Correlation between cards, design and buttons.
- 7. Anything to add to this card sort?**
(prototyping for programmers.)

XXI Card sorting results: Stichting GameLab Oost



XXII Card Sorting Results: Final workflow

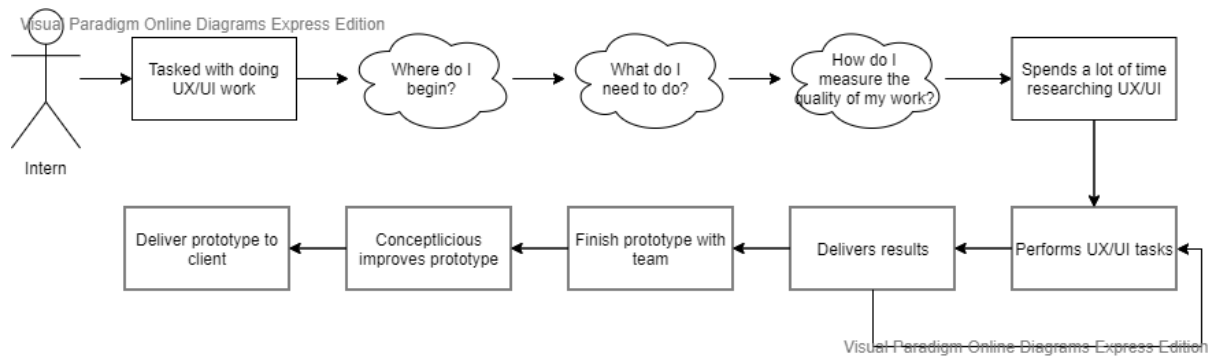


XXII Requirements list

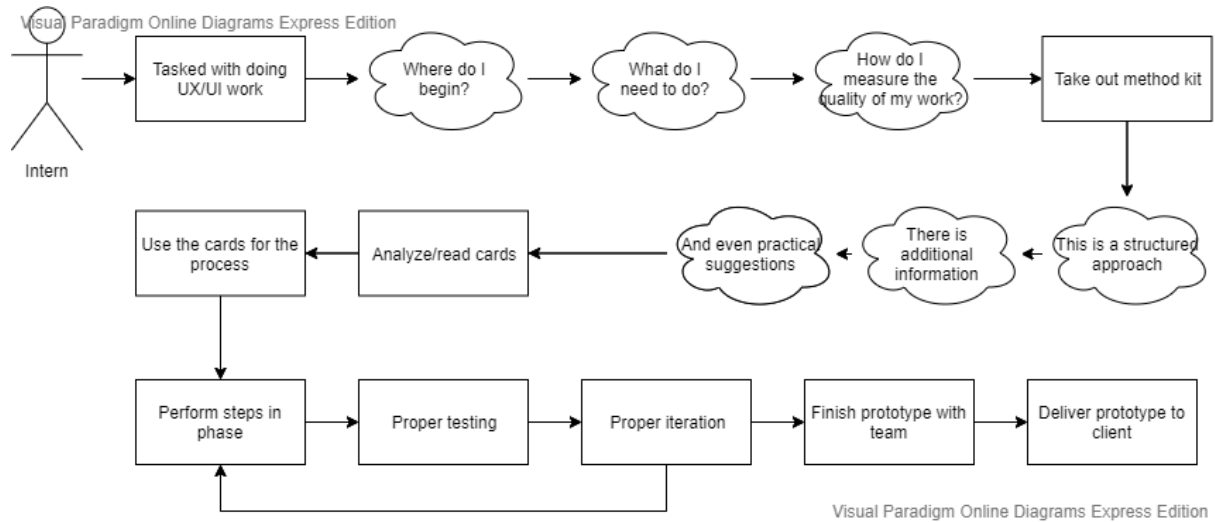
Name	Description	Functionality	Tasks
1. Scope	This will be the step where you define your goals and lay the boundaries.	What are you going to research and do? What do you (not) need?	Document your product's goals, limits, necessities and functionalities.
2. Persona	This will be the step where you define the target audience of your product.	Who will you be making the product for? What are they like?	Develop a profile of your ideal user.
3. Research	This will be the step where you diverge and analyse.	What are your options? What similar products exist? What makes them (not) successful?	Brainstorming, gathering inspiration, documenting points of interest.
4. Sketching	This will be the step where you quickly visualise some of your ideas.	What do your ideas look like? What are the important aspects of it?	Make at least 2 sketches for each idea/concept.
5. Test	This will be the step where you discuss your findings, ideas and sketches with your team and manager.	What do people think of the concepts? Does everyone agree? What concept will you work with and why?	Get everyone involved in a meeting and document what is being discussed.
6. User Journey	This will be the step where you decide in what way/context your target audience will interact with your product	When will the user interact with your product? What is their motivation? What is their goal?	Define the use of your product through the eyes of the user.
7. Moodboard	This will be the step where you decide on the atmosphere of your product.	What kind of feeling do you want to portray? What type of experience do you want it to be?	Gather inspiration for what kind of impression you want your product to make.
8. Brandboard	This will be the step where you make some design choices for your product.	What colour palette will you use? What shapes will you use? What font will you use? What patterns will you use? Etc.	Decide on some design options
9. Test	This will be the step where you test your assembled findings with your target audience.	Do they like your design (choices)? Do they agree with when they would use the product?	Use previous steps to hold interviews and conduct surveys among target audience
10. UX flow	This will be the step where you decide on the structure of your product.	What options should go where, structurally? What can you group together?	Make a flowchart or card sort of the hierarchy and structure of the product.

11. Wireframe (low fidelity)	This will be the step where you sketch out the structure and layout of your product and quickly.	Where should everything be placed?	Make a low fidelity wireframe where you show only the skeleton of your product
12. Paper prototype	This will be the step where you use the low fidelity wireframe to create a paper prototype.	Where should everything be placed? Does everything make sense? Is it intuitive to use?	Make a paper prototype with which you can test your product's usability
13. Test	This will be the step where you test your products experience with your target audience.	Is the experience pleasant? Does everything make sense? Is the goal clear?	Perform a usability test with 5 people and use a questionnaire to find out their experience.
14. Wireframe (mid fidelity)	This will be the step where you improve your low fidelity wireframe and turn it to mid fidelity, digitally.	What is the definitive layout?	Apply acquired info from usability test to this wireframe. Add grey tones for contrasts.
15. User Interface Design	This will be the step where you create the interface design of your product.	What will my product look like?	Design the buttons, pop ups, icons and other interface assets for your product.
16. Wireframe (high fidelity)	This will be the step where you create your last and definitive wireframe.	How will my product turn out?	Take the mid fidelity wireframe and combine it with the User Interface Design.
17. Test	This will be the step where you test your final wireframe.	Does everything function well? Does everything look/feel nice?	Take 5 new (unbiased) people to do a usability test. Use a questionnaire to find out their experience and record the sessions to have something to look back at.
18. Prototype	This will be the step where you have your first prototype.	Does everything function better? Does everything look/feel better?	Iterate and implement the findings from the test.

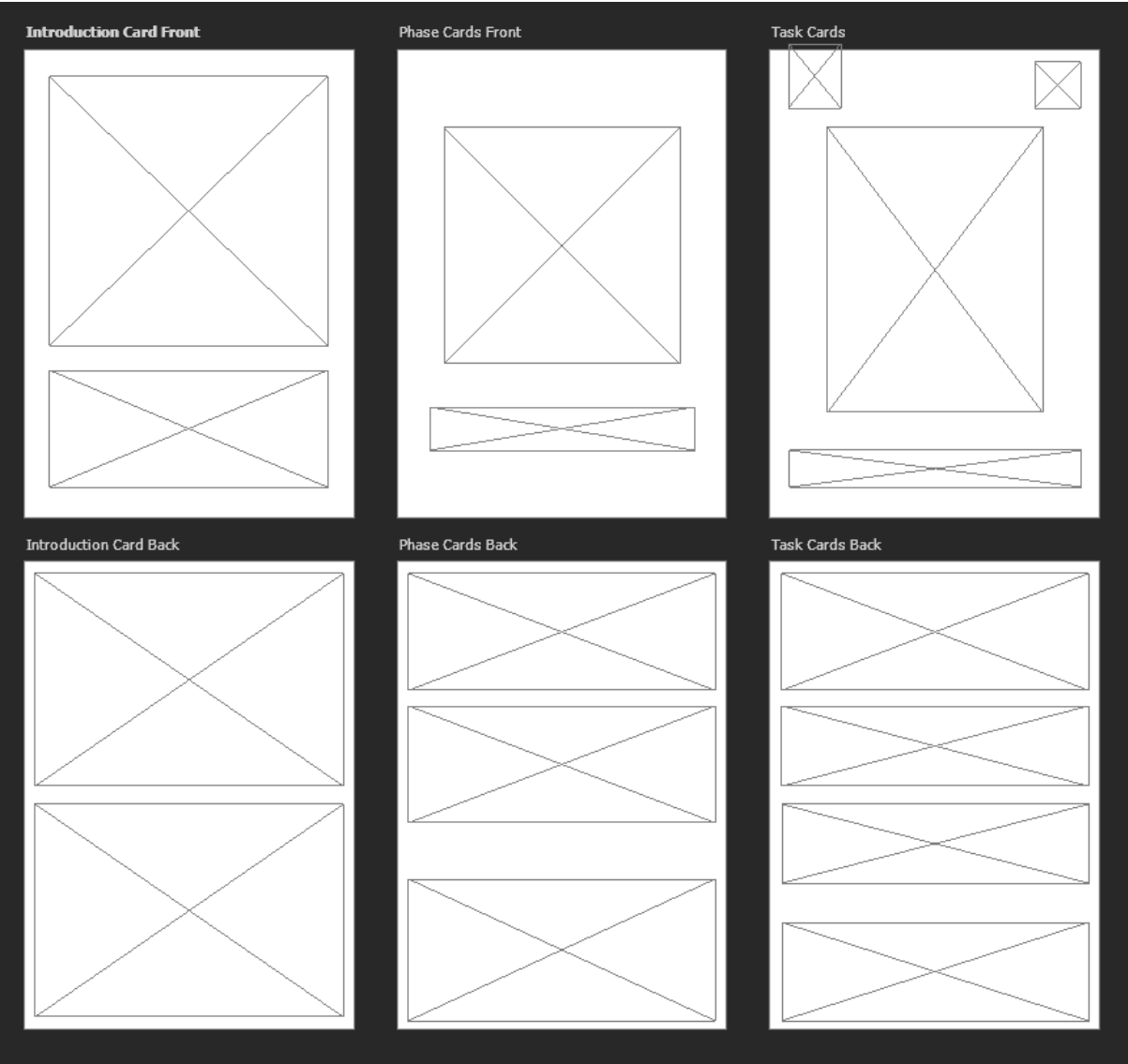
XXIII Design Specification: user journey before



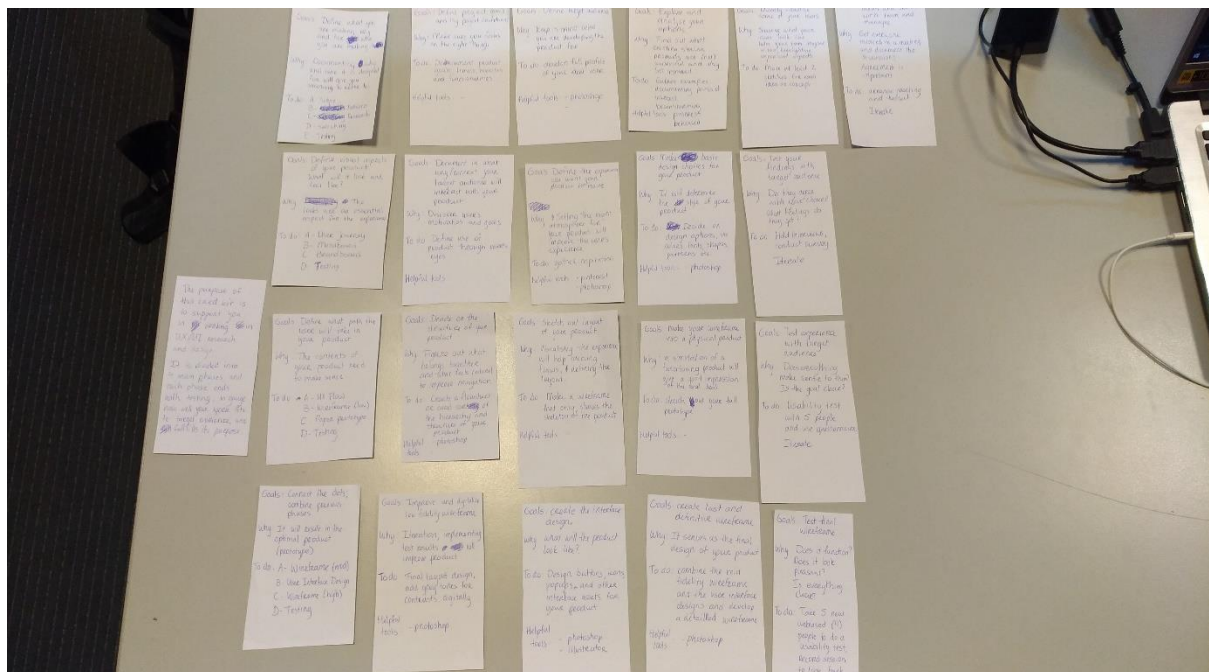
XXIV Design Specification: user journey after



XXVCard Deck Wireframe



XXVI Paper prototype



XXVII Paper Prototype Questionnaire 1

1. Any questions about any of the cards?

x

2. First impressions?

Makes sense, seems familiar.

3. Do you understand this card deck's purpose?

Yes. It is very clear and the guidance is solid.

4. Do you understand the order of the cards?

Test subject put the cards in the right order right away

5. Do you think it would be of help with performing UX/UI research and design tasks?

Step by step plan, clear as day.

6. Is there anything you are missing from these cards?

Extra notes : "it's not about you, don't follow your guts."

7. Anything you would improve?

Tips&tricks cards per phase

8. Anything you see as a must?

X ^

9. Tips en tricks?

Grid&Spacing, Persona & Research omwisselen.

XXVIII Paper Prototype Questionnaire 2

1. Any questions about any of the cards?

User journey is still relatively abstract. No idea what it should turn out to be.

Mid fidelity wireframe also isn't particularly clear; the difference is small but definitely present.

2. First impressions?

Makes sense, logics.

3. Do you understand this card deck's purpose?

When it was in the correct order it was clear

4. Do you understand the order of the cards?

Not directly clear but depends on colour/design usage

5. Do you think it would be of help with performing UX/UI research and design tasks?

More in-depth before anything gets developed really.

6. Is there anything you are missing from these cards?

Tip cards, extra info about the designs per phase. Preventing cards.

7. Anything you would improve?

Write down why the steps are so important. Improve the already made wireframes, emphasize that you don't need to make a new wireframe for every card.

8. Anything you see as a must?

Extra cards.

9. Tips:

Have someone else explain the moodboard back to you!

Star rating system, importance?

Reviewing phases: what did you re-do about phase 1 in phase 2?

Tip cards, learning cards

XXIX Paper Prototype Questionnaire 3

Prototype questionnaire:

10. First Impressions

Handy, fun.

11. Any questions about any of the cards?

Not specifically, mostly the order is a point of attention

12. Do you understand this card deck's purpose?

UX/UI workflow

13. Do you understand the order of the cards?

That was clear immediately

14. Do you think it would be of help with performing UX/UI research and design tasks?

It would even help professionals, it is a strict list.

15. Is there anything you are missing from these cards?

X

16. Anything you would improve?

The order of cards

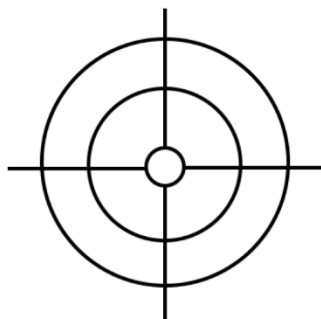
17. Anything you see as a must?

X

XXXThe Final Prototype

1

A



Scope

Scope

Goals:

Defining the project goals and laying the boundaries of the project.

Why:

Documenting these things will make sure you focus on the right things.

To do:

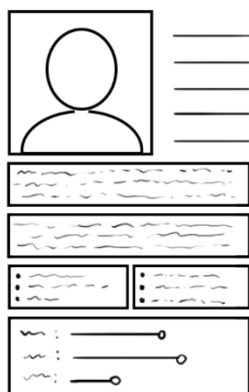
Document product goals, limits, necessities and functionalities.

Helpful Tools:

- Word

1

B



Persona

Persona

Goals:

Describing the target audience your product is meant for.

Why:

It will help you keep in mind who you are developing the product for.

To do:

Develop a full profile of your ideal user.

Helpful Tools:

- Photoshop
- UXpressia

1



Research

C

Research

Goals:

Diverge; explore and analyse the options for your project.

Why:

You will find out what similar products are successful and why.

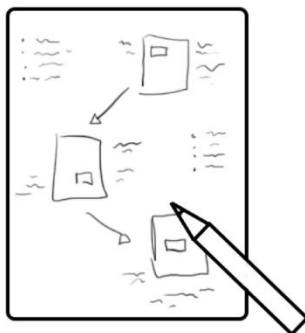
To do:

Gather examples, document points of interest, start brainstorming.

Helpful Tools:

- Pinterest
- Behanced

1



Sketching

D

Sketching

Goals:

Quickly visualise some of your ideas.

Why:

It will help sharing your ideas with teammates.

To do:

Make at least 2 sketches for each idea or concept.

Helpful Tools:

- Pen & Paper
- Photoshop

1

E



Testing

Goals:

Discuss findings, ideas and sketches with team and project manager.

Why:

Everyone involved in the development process should be on the same page.

To do:

Arrange meeting and reflect.
Iterate afterwards

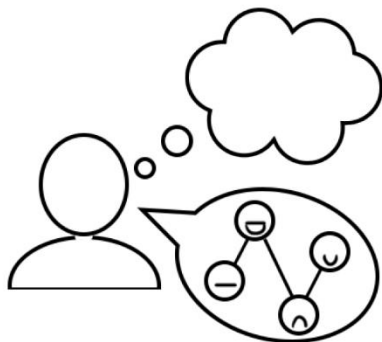
Testing

Helpful Tools:

- Scrum

2

A



User Journey

Goals:

Capture in how your target audience will interact with the product.

Why:

You will find out about the user's motivation and goals.

To do:

Arrange meeting and reflect.
Iterate afterwards.

User Journey

Helpful Tools:

- Photoshop
- Visual
Paradigm

2

B

Moodboard



Moodboard

Goals:

Define the atmosphere you want your product to radiate.

Why:

The right atmosphere will improve the user's experience and immersion.

To do:

Gather and assemble inspiration

Helpful Tools:

- Photoshop
- Pinterest

2

C

Brandboard



Brandboard

Goals:

Make basic design choices for your product.

Why:

It will capture the style of your product.

To do:

Decide on design options like colours, fonts, shapes, patterns etc.

Helpful Tools:

- Photoshop
- Pinterest
- Behanced

2

D



Testing

Goals:

Test your findings from Phase 2 with the target audience.

Why:

Your target audience will use your product so their opinion matters!

To do:

Hold interviews, conduct survey.
Iterate afterwards

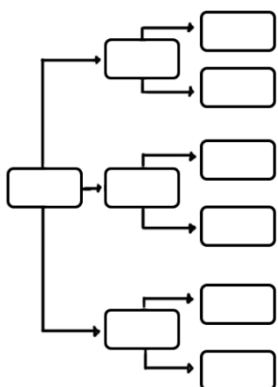
Testing

Helpful Tools:

- Word

3

A



UX Flow

Goals:

Visualise the final structure of your product.

Why:

It will make you think thoroughly about the navigation of the product.

To do:

Create a flowchart or card sorting test of the structure of your product.

UX Flow

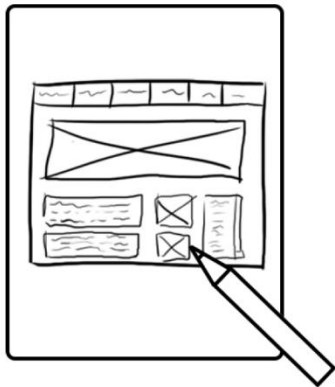
Helpful Tools:

-Photoshop
-Visual
Paradigm

3

B

Wireframe



Wireframe

Goals:

In a low fidelity wireframe you sketch out the layout of your product.

Why:

Visualising the experience will help tackle flaws.

To do:

Make a wireframe that only shows the skeleton of the product.

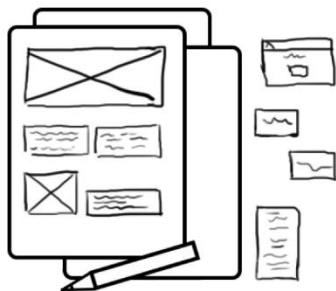
Helpful Tools:

-Pen & Paper

3

C

Paper Prototype



Paper prototype

Goals:

Turn your wireframe into a physical, testable product.

Why:

It will enable testing the functionality before programming comes into play.

To do:

Fully sketch out the prototype, with all the buttons and popups etc.

Helpful Tools:

-Pen & Paper

3



D

Testing

Goals:

Test the experience with target audience.

Why:

The user has to understand the product and how to find everything.

To do:

Do usability tests with 5 people, use a questionnaire. Iterate afterwards.

Helpful Tools:

-Word

Testing

4



A

Wireframe

Goals:

Improve the low fidelity wireframe to mid fidelity by digitalising it.

Why:

To implement test results directly into your product will improve it,

To do:

Design final layout digitally, add grey tones for contrasts and correlations.

Helpful Tools:

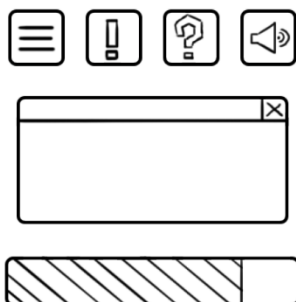
- Photoshop

Wireframe

4

B

UI Design



UI Design

Goals:
Create the full interface design.

Why:
The interface is the connection between the user and the product.

To do:
Design buttons, icons, popups and other interface assets for the product.

Helpful Tools:
- Photoshop
- Illustrator

4

C

Wireframe



Wireframe

Goals:
Make the (final) high fidelity wireframe.

Why:
It will be the final design of your product before being produced.

To do:
Combine the mid fidelity wireframe and the UI design.

Helpful Tools:
- Photoshop

4

D



Testing

Testing

Goals:

Test the final wireframe

Why:

Testing the wireframe a final time will confirm design choices.

To do:

Do usability test with 5 new people, record session to look back at it.

Helpful Tools:

- Word

1

Foundation Phase

Foundation

Goals:

Define what you are making, why and for who you are making it.

Why:

It will form the foundation of your product, which you can refer to.

To do:

A - Scope
B - Persona
C - Research
D - Sketching
E - Testing



Design Phase

Design

Goals:

Define visual aspects of your product, what it will look and feel like.

Why:

It will form the shape of the interaction of your product.

To do:

- A - User Journey
- B - Moodboard
- C - Brandboard
- D - Testing



Experience Phase

Experience

Goals:

Define what path the user will take in your product.

Why:

The product needs to be usable and make sense.

To do:

- A - UX Flow
- B - Wireframe (low)
- C - Paper Prototype
- D - Testing



Development Phase

THE UX/UI WORKFLOW KIT

Development

Goals:

Connect the dots; combine previous phases.

Why:

It will result in the optimal product (prototype).

To do:

- A - Wireframe (mid)
- B - UI design
- C - Wireframe (high)
- D - Testing

Welcome to the UX/UI workflow kit!

This card deck provides a working structure in relation to UX/UI research and design.

This workflow is divided into four phases: the **foundation**, the **design**, the **experience** and the **development**. Each phase focuses on one important aspect of UX/UI and ends with tests to gauge your findings and how well the product functions.

After testing, a moment of iteration should take place to improve the product and move on to the next stage.

There are many ways to make use of this deck, but be sure to use it wisely!