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Application Concept: Improvement of a UX-design Office's Client Experience Through Gamification.

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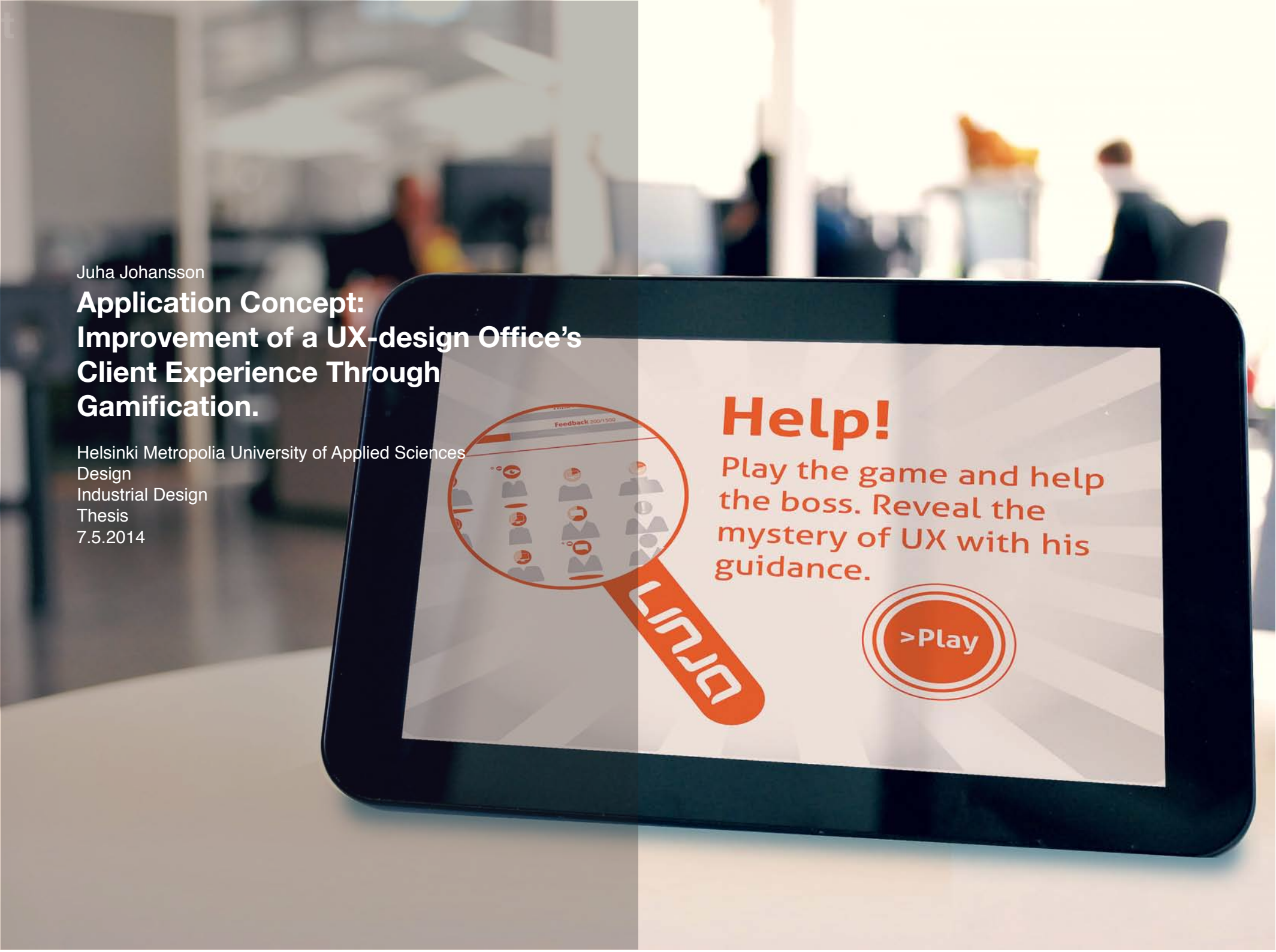

Abstract

Helsinki Metropolia University of Applied Sciences
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Author: Juha Johansson
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The purpose of this study was to find ways to improve the client experience of Linja Design Office through application design. In a design office like Linja Design client meetings may take longer than planned and the clients of the following meetings may need to wait for their contact person. Therefore Linja Design assigned the author to study if there were ways to improve the experience of the situation. Linja as a design studio also believes strongly in gamification and therefore this study approaches the study problem through gamification.

The study focuses on qualitative research methods covering the target group and Linja design staff as an assigner of this study. Contextual interviews with 11 participants covered the target group. Online interviews and open discussion with Linja's staff ensured the process to meet the assignment.

The interviews and open discussion with Linja's staff revealed the biggest problem to be the lack of UX-terminology knowledge among the clients. As the study focuses on solving the problems in the client experience through gamification, the thesis tries to solve problems in the client experience through game mechanics. The target group was divided into four groups, which differed in interests. The interests were orientation, relaxing, activity and exclusivity. The game mechanics for improving the client experience were discovered by studying the XEO's player experience map. The player experience map connects different game formats into desired user experiences. The found game mechanics were studied through benchmarking and the best features from the benchmark were used as a base for designing the concept. The visual design of the concept was based on a brand persona of Linja Design. Brand persona creation included analysis of the website and discussion with Linja's CEO covering the desired brand impression for the clients. The final application might be connected to Linja's website and therefore the study of visual features was crucial to ensure visual continuity.

Further development of the final concept together with Linja Design is undecided. As another option, the concept may be developed further as an independent project by the author and other professionals, as the concept has gained interest because of it is uniqueness.

Keywords: gamification, user experience, client experience

Tiivistelmä

Helsinki Metropolia Ammattikorkeakoulu
Tutkinto: Muotoilijan AMK
Koulutusohjelma: Muotoilu
Suuntautumisvaihtoehto: Teollinen muotoilu
Nimi: Sovelluskonsepti: Asiakaskokemuksen parantaminen käyttökokemussuunnittelutoimistossa pelillistämisen näkökulmasta
Tekijä: Juha Johansson
Ohjaajat: Juha Ainoa, Ville-Matti Vilkka
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Opinnäytetyön tavoitteena oli tutkia keinoja asiakaskokemuksen parantamiseksi aplikaatiosuunnittelun avulla. Opinnäytetyön toimeksiantajan Linja Design Oy:n toimistossa asiakastapaamiset saattavat kestää odotettua pidempään. Tästä syystä asiakkaat saattavat joutua odottamaan yhteyshenkilön tapaamista. Kyseisestä tilanteesta johtuen Linja Design antoi tämän opinnäytetyön laatijalle tehtäväksi tutkia mahdollisia keinoja tilanneliitännäisen asiakaskokemuksen parantamiseksi. Linja Design uskoo vahvasti pelillistämiseen. Tästä syystä opinnäytetyö tarkastelee tutkimusongelmaa pelillistämisen näkökulmasta.

Työ keskittyy laadullisiin käyttäjätutkimusmetodeihin. Kohderyhmän lisäksi työssä hastateltiin Linja Designin työntekijöitä. Kontekstuaaliseen haastatteluun osallistui yksitoista henkilöä kohderyhmästä. Prosessin varella tehdyt internet-haastattelut ja avoin keskustelu yhdessä Linjan henkilökunnan kanssa takasivat projektin vastaavan toimeksiantoon.

Haastattelut ja avoin keskustelu Linjan henkilökunnan kanssa paljasti terminologian puutteellisen ymmärtämisen olevan suurin ongelma asiakkaiden keskuudessa. Opinnäytetyö ratkoo ongelmia asiakastapaamisissa pelillistämisen näkökulmasta ja tästä syystä kohderyhmän tarpeisiin pyrittiin vastaamaan pelimekaniikan avulla. Kohderyhmä jaettiin neljään joukkoon perustuen erilaisiin mieltymyksiin. Ryhmät jakautuivat mieltymysten mukaan. Mieltymykset olivat aktiviteetin, orientaation, rentoutumisen ja henkilökohtaisuuden tarve. Kohderyhmille sopivat pelimekaniikat löydettiin käyttämällä XEO:n pelaajakokemuskarttaa. Pelikokemuskartta yhdistää erilaiset peliformaatit yhteensopiviin käyttökokemustavoitteisiin. Havaitut pelimekaniikat tutkittiin käyttämällä apuna benchmarking-kartoitusta. Kartoituksessa hyväksi havaitut pelimekaniikat toimivat pohjana konseptin jatkokehitykselle. Konseptin visuaalinen ilme pohjautuu Linja Designin brändipersoonaan. Brändipersoona sisälsi verkkosivuanalyysin ja yhteenvedon tavoitellusta brändikokemuksesta, joka muodostetiin yhdessä Linjan toimitusjohtajan kanssa. Lopullinen konsepti on mahdollisesti yhteydessä Linjan nettisivuun. Tästä johtuen visuaalisten elementtien läpikäyti oli välttämöntä visuaalisen jatkuvuuden takaamiseksi.

Konseptin jatkokehityksestä yhtestyössä Linjan kanssa ei ole sovittu. Toisena vaihtoehtona konseptia jatkokehitetään mahdollisesti it isenäisenä projektina opinnäytetyön laatijan ja muiden ammattilaisten toimesta. Ammattilaiset eri aloilta ovat kiinnostuneet jatkokehityksestä konseptin uniikkiuden johdosta.

Avainsanat: Pelillistäminen, Käyttökokemus, Asiakaskokemus

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1 Introduction

Gamification is a raising field in the design business. The main reason behind this is that people are bored to death. Behind boredom there are two main reasons. Either we do not know how to do something or we do not want to do it, which means lack of faculty or lack of volition. There's a clear difference in emotion, sensation and engagement when we're doing something that is rich in structure and rewarding like gaming. Real life is full of unstructured experiences and often it is not really clear what to do and when, which causes the lack of faculty. Games on the other hand are very clear in their structure, rules, limit is and rewards. (Dignan 2011.)

These features have led to a huge raise in the business of games. For example the Finnish game Angry Birds gained 10 million downloads in ten days. A million downloads per day for a game that consists of shooting birds to break structures, which are filled with green pigs. And the people who are playing these games are not only kids but also adults. There are also 27.2 million Nintendo Wii's sold in the United States and 55 million copies of a game called Call of Duty, which consists of running around and killing stuff. (Dignan 2011.)

Gamification is the application of game mechanics, such as points, badges and leaderboards, applied into non-game environments in order to architect behavior. Gamification has been seen in the marketing and customer loyalty context but it has started to integrate for example into social, mobile and location based services. More advanced applications can be found in the area of education. Internally gamification has been seen to integrate into project management for rewarding people for finishing tasks in IT-organizations and software development. Gamification in some ways is driven by novelty and hype. Therefore researchers at Gartner believe that not all the gamified applications will last. The applications which are based on intrinsic motivation through meaningful tasks and balance between volition and resistance will last according to Gartner. (Burke 2014.)

This thesis focuses on motivating the users to self-educate themselves and to create a positive feeling for the users with gamification. While many games include rewarded learning as a basis for progression, in this context self-education means the learning of terminology.
The list of gamified educational applications is endless. One example close to the subject of this thesis is an application called Brainscape. Brainscape is an application, which divides the educational content into pieces for the user in a personal format and pays more attention to the content which is harder for the user to learn. (Chou 2013.)

Linja, as the assigner of this thesis, publicly believes gamification to be the future of applications (Halme, Noreila, Perheentupa 2013). The company has been working with user interfaces and user experience design since 1986 (Linja Design 2013a). Previously, before the assignment I worked as a user experience related sound designer at Linja Design, which led my way to contact them regarding the assignment. In my professional future I'm planning to focus on interaction design. Therefore gaining the basic knowledge of concepting gamified solutions is valuable for my professional growth due to the previously mentioned raising trends in the field.

The thesis includes a lot of personal learning and as an author I'm experienced with the basics of application development and interaction design. Therefore this thesis document is optimal for people with a similar skill level. Personal interests and background had a strong effect on approaching the study problem. The study problem could have been approached for example through service design methodology with no gamification included, but those fields of design are not relevant for my plans of professional growth. Service design solutions wouldn't also work as marketing tools for Linja Design's expertise. Most of the waiting and office lobby related applications work as virtual lobby attendants. This approach was considered in the beginning of the process but was left out from the project scope after the results from objective definement.

1.1 Theoretical Framework

Gamification means using game elements or game design techniques in a non-game context. The most common game elements are points, badges and leaderboards (Werbach & Hunter 2012, 70-71).

Points for example are a great way to motivate people who are into collecting something. On the other hand points can be much more. For example points can indicate the progress and give feedback, work as rewards and connect the game to physical rewards as a currency. The using of points should be carefully concidered because points are very limited, uniform and abstract. Points can however be a great way to challenge the users by scores or reward the users by giving feedback of progression. (Werbach & Hunter 2012, 71-72.)

Badges usually include points and therefore are a more valuable version of points. Badges can indicate a desired way to play a game, present virtual status symbols and link users to others by using the same badges in social games. The benefit of using badges is their flexibility. The badges in an application can indicate what ever and the limit for linked meaning is only limited by the imagination of the designer. The badges therefore can also be fun or serious. (Werbach & Hunter 2012, 72-74.)

Leaderboards are the trickiest game element of the trio. Leader boards can be very motivating in some cases, for example in situations where a player sees that there are only a few more points left for completing the level. On the other hand leaderboards can be really demotivating as the player may be discouraged to use the application when the challenge is visible at all times, and the challenge may start to feel overwhelming. (Werbach & Hunter 2012, 74-75.)

Points, badges and leader boards can be a great starting point for gamifying, but they can also be very limited. Therefore a deeper look into what makes games work is advisable. (Werbach & Hunter 2012, 75.) In the figure 1 the basic game elements are divided to three different levels where the upper one inludes the lower ones.

Figure 1. Game elements' hierarchy (modified) (Werbach & Hunter 2012, 80).

For designing gamified applications a multidisciplinary approach is necessary. While it is about fun, play and user experience, it is also about engineering the business objectives and facing them through those features. This thesis is based on Werbach's and Hunter's D6 model for designing gamified applications. D6 includes the following steps. (Werbach & Hunter 2012, 83.)

1. Define business objectives
2. Delineate target behaviors
3. Describe your players
4. Device activity cycles
5. Do not forget the fun
6. Deploy the appropriate tools.

(Werbach & Hunter 2012, 83.)
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1.2 Terminology

The following methods and termonology were used in the process

Business objectives

The business objectives of this thesis project were defined together with Linja Design, as the company assigned the project.

Target Behaviors and Player Profiles

Target behaviors and player profiles are studied through contextual interviews and user personas. The contextual interview structure can be divided into four steps. The interview structure is the following:

Context

In the context phase the designer gathers data in the workplace while people are working and focuses on what they are doing.

Partnership

In this phase the designer collaborates with customers to understand their work and lets them lead the interview by doing their work. The designer shouldn't have planned questions for the partnership phase.

Interpretation

The designer determines the meaning of the customer's words and actions together with the customer by sharing interpretations and lets them tune the meanings. When immersed in their real life and real work, people will not let you misconstrue their lives.

Focus

The designer steers the conversation to meaningful topics by paying attention to what falls within project scope and ignores things that are outside of it. He lets the users know the focus so they can steer, too.

- Karen Holtzblatt (Beyer & Holtzblatt 1997, 945.)

The personas' creating process followed the five steps structure to compose effective personas, developed by the advocates of better persona creating Kristen Johansen and Jill Christ. (Johansen & Christ 2012.)

1. Proper Preparation
2. Getting the Right Data
3. Synthesis
4. Naked Personas (no made up features)
5. Communicated and Applied Appropriately

- Kristen Johansen & Jill Christ (Johansen & Christ 2012.)

Activity Cycles

Activity cycles in games means the loop, which happens between fighting, earningn and buying. For example the player fights against the monster and gains gold. Then the player buys bigger guns with the gold to fight against bigger monsters to earn bigger amounts of gold and so on. The acitivty plays a strong role in motivating the users. The whole implementation can be ruined if the activity cycles do not work for some reason. (Morgan 2011.)

Games consist of activity cycles, but the activity cycles differ from each other to meet the users interest and to create progress. The basic structure of progress can be divided into the following phases: onboarding, fight, bossfight, and rest where the last three of the phases loop after the first Round. See figure 2. (Werbach & Hunter 2012, 93-96.)

Fun Types

This thesis will approach the user experience as four groups of fun: hard fun, serious fun, people fun and easy fun. Hard fun means the kind of fun that includes challenges, easy fun means exploring, people fun means collaboration with other people in a way or another and serious fun means the kind of fun that changes how the player thinks or feels

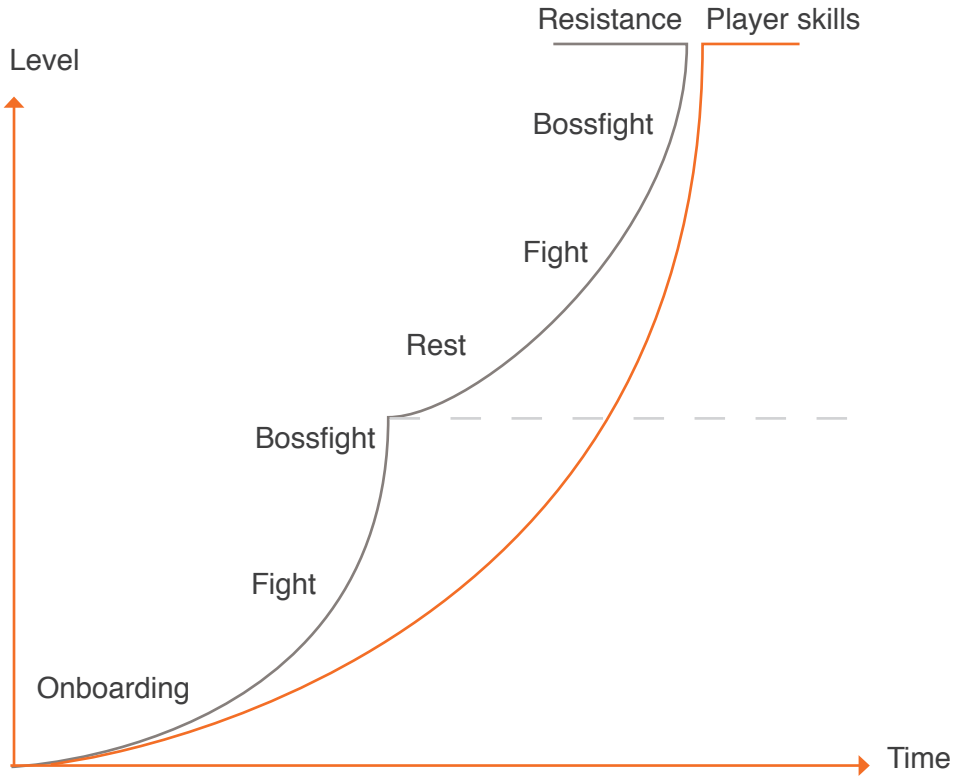


Figure 2. Game progression structure (Werbach & Hunter 2012, 93-96.)

in real life. Serious fun is usually seen in an educational context such as games where the learning happens through repetitive player tasks. (XEODesign 2004.)

Deploying the right tools in the context of Werbach's and Hunter's D6 model means the implementation of the application. In this thesis the final outcome will not be an application but the final concepting includes the following methods:

Brainstorming
A collective process of generating constraint-free ideas that respond to a given creative brief (Teixeira, Braga & Oyama 2014).

User flows
A visual representation of the user's flow to complete tasks within the product (Teixeira, Braga & Oyama 2014).

Wireframe
A visual guide that represents the page structure, as well as it is hierarchy and key elements. (Teixeira, Braga & Oyama 2014)

Mockup
A model or replica of a machine or structure, used for instructional or experimental purposes (Oxford 2014).

Benchmarking
Evaluate or check (something) by comparison with a standard (Oxford 2014).

Graphic design
The art or skill of combining text and pictures in advertisements, magazines, or books. (Oxford 2014)

Concepting
An idea of something formed by mentally combining all it is characteristics or particulars. (Dictionary 2014)

2 The Objectives

The starting point of the thesis project was defining the objectives. Design studio Linja Design assigned the project so their designers' and executives' opinions concerning the project objectives were the base for further definition. The aim was to design an application, which improves meetings and the client experience at Linjacafé through usage by clients during the waiting before meetings.

The First meeting at Linja pointed out many questions like:
Should the product be:

Advertising or Comfortable?

Sales management people were naturally very interested in the advertisement aspect of the final product. As the meetings are the most common touch point between clients and the company it is natural to advertize the company during the meeting situations. The relation between the client experience's comfort and the straightness of the commercial message raised some uncertainty. (Halme 2014a.)

Gamified?

Linja as a UX-Design studio strongly believes in gamification due to the games ability to engage users. According to their public blog posts gamification will play a strong role in the UX-industry also because the games themselves have raised their status and business potential in a global market. (Halme, Noreila, Perheentupa 2013.)

Educational or Relaxing?

The UX-design field is fairly young and the terminology is understood in many ways by the professionals. Therefore it is clear that the terminology is even more abstract between clients. UX-design's effects may be known but the deeper structure and actions behind the results seemed to need "demystifying" for the clients. Because of the terminology's abstract nature and due to the immaterial benefit is, selling UX-services is always a challenge and clarifying the subject for the clients was desired. Still the final form of educational content needed some careful defining because instead of being mentally strained, clients should feel relaxed and open-minded after the use of the application.

Playful?

The meaning of the term fun varies a lot between people. While some people tend to enjoy their time the most when relaxing others may need action to have fun. The wide range of definitions of fun raised a need for deeper study of the subject. (Halme 2014a.)

Interviewing the creative director, the chief executive officer and the chief competence officer of Linja Design clarified the biggest problem in the meetings to be the understanding the UX-design terminology (Halme, 2014b.)

The second discovery that had an effect on defining the objectives was Alice Isen's theory of a positive affect. The theory claims that a positive affect before a work task makes people more creative and better problem solvers. (Manstead etc. 2004, 263.)

To sum up the objectives of the research: the aim was to create an educating application, which would demystify the UX-design jargon, but do it in an entertaining way because the aim was to open up the client's mind instead of straining it.

The biggest problem is understanding the terminology

Steffen Halme

Positive affect gives rise to an enlarged cognitive context

Alice Isen

An application, which improves meetings and the client experience at Linjacafé through usage by clients during the waiting before meetings.

LINJA

2.1 Approaching the Objectives Through Gamification

As mentioned before Linja as a design studio believes strongly in gamification and also tries to include gamification related services in their sale offerings. Games are a rich media because of their multi-dynamic structure. Different users can get satisfied by different dynamics, which are still part of the same structure. Therefore games give a lot of flexibility when meeting problems with a high variability of interests in a target group. (Dignan 2011.)

Aaron Dignan is a publicly approved gamification advocate. Dignan does not mention the word gamification in his publications because the young term is such a misnomer according to him. Whatever you want to call the using of game elements in a non-game context, here's Aaron's explanation of why it is going to be a big thing in the future. (Dignan 2011.)

• Games are clear and satisfying.

• Games are nature's learning engine

• Games induce the state of flow

• Games help to grow our skills

• Games activate our seeking circuitry

- Aaron Dignan (Dignan 2011.)

All of the aspects will be emphasized along the concepting process.

Gamification is also estimated to reach the plateau in the Gartner's hype cycle in five to ten years. According to Gartner's in-house analytics gamification has already been seen to gain great results in educational context but is still on the way to really apply into company level operations. These estimations gained my interest and led my way to approach the objectives through gamification. (Burke 2014.) See the visualization of the Hype cycle in figure 3.

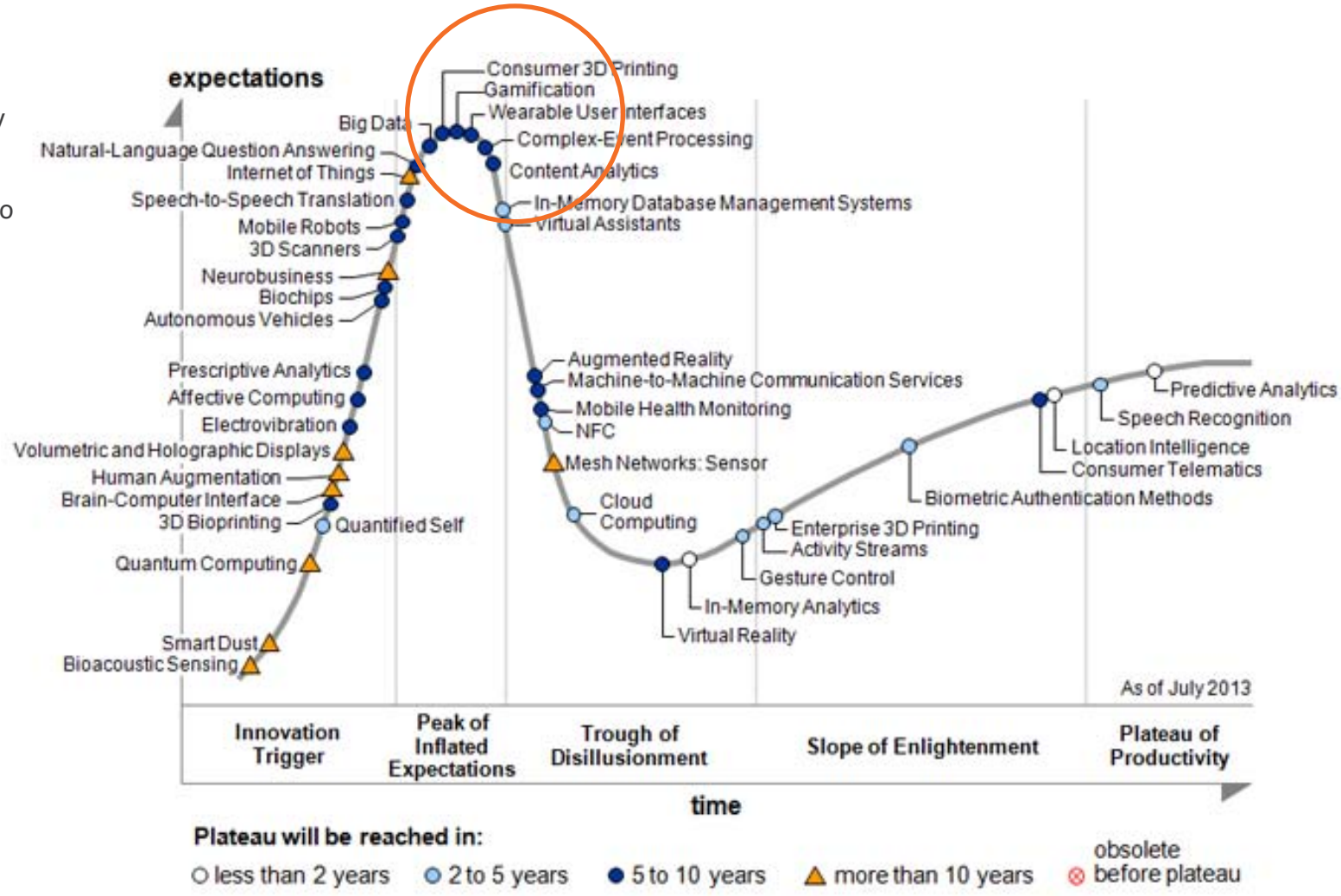


Figure 3. Gartner's hype cycle. (Gartner 2013.)

3 Early Stage Benchmark

Gamification in a nutshell means using game elements in a non-game context. In the following examples, which are covered in the early stage benchmark, these elements are used to raise user activity and to gain new users. The aim of the early stage benchmark is to gather the needed knowledge of the subject for further defining the project scope.

FourSquare

Foursquare is a geolocation sharing application, which has stood out from the competitors with gamification. Normally people are afraid of sharing their location for privacy and security reasons but Foursquare overcame this problem through multiple rewards. In the application you can compete against your friends and get rewarded with experience points, badges and discounts when accomplishing achievements. These actions have made people around the world share their locations in the places they tend to visit.
(Cortizo 2014.)

When using levels in gamifying, skills and resistance should be kept in balance. FourSquare has overcome this challenge through localizing the challenges. In the application, when you get the most check-ins in a location among other users, you get the “Mayor of the house” state and the competition takes place between friends and other local people, which is also powerful as a social feature. The user can also get badges for using the application, which is very valuable for the onboarding phase and catching the users interest.

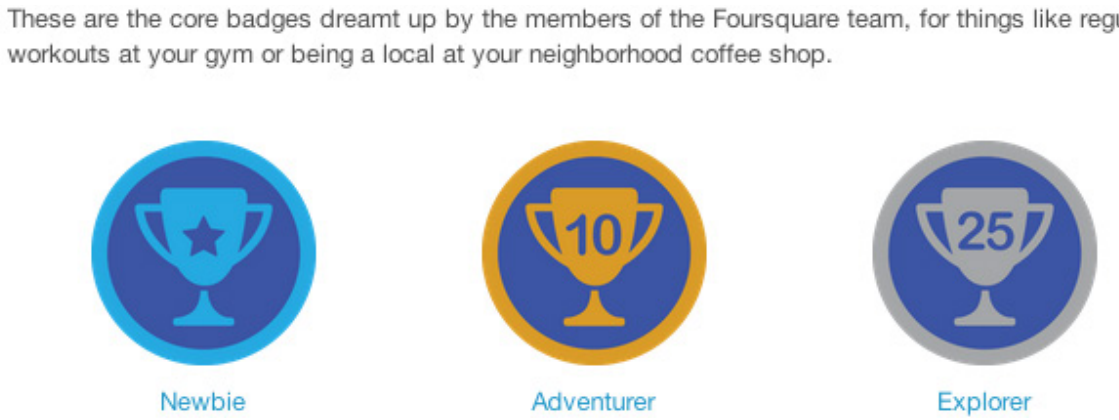


Figure 4. Author’s personal Foursquare badges, which are gained by using the application (Foursquare 2014).

Starbucks

Café chain Starbucks uses gamification in a form of rewards. With a gift card the user can start collecting “stars” through purchases or refills loaded on card once the card is registered at the Starbucks website. With stars the user can get refills, special deals or free coffee. The aim of this form of gamification is to gain user loyalty. (Cortizo 2014.)

Another interesting point in the gamification of the starbucks gift cards is the clear and satisfying structure of rewards and tasks.(Dignan 2011.) The reward “stars“ the user gets and the final outcome of the activity are much simpler than the actual outcome which is something between free coffee and special deals. For a user it is clear what to do “OK i’ll buy coffee and get those stars!” instead of “OK, now, if I’ll buy coffee I can get some kind of discounts, free coffee or refills depending on the situation”. It is clever how the whole system is simplified around the concept of those stars.

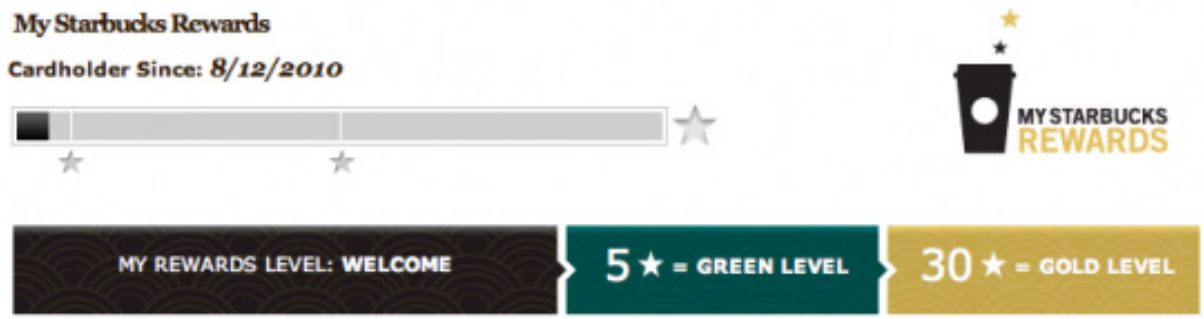


Figure 5. “My Starbucs Rewards” sceenshot(Cortizo 2014).

DevHub

DevHub is a website building website. Their problem was that only 10% of the users completed the blog building process on the site. The gamified solution was turning the chores that the user had to perform to build a website into missions as a part of a game of creating their own online emporium. After gamifying the website building process the percentage of the completed building processes went up to 80% (Cortizo 2014.)

As a conclusion we can say that this is a great example of how gamifying is not only about points, badges and leaderboards. Games are also rich as a media and allow integrating storytelling into contexts where it hasn't been seen before. This can create a great amount of value for the users - like in the DevHub's case.

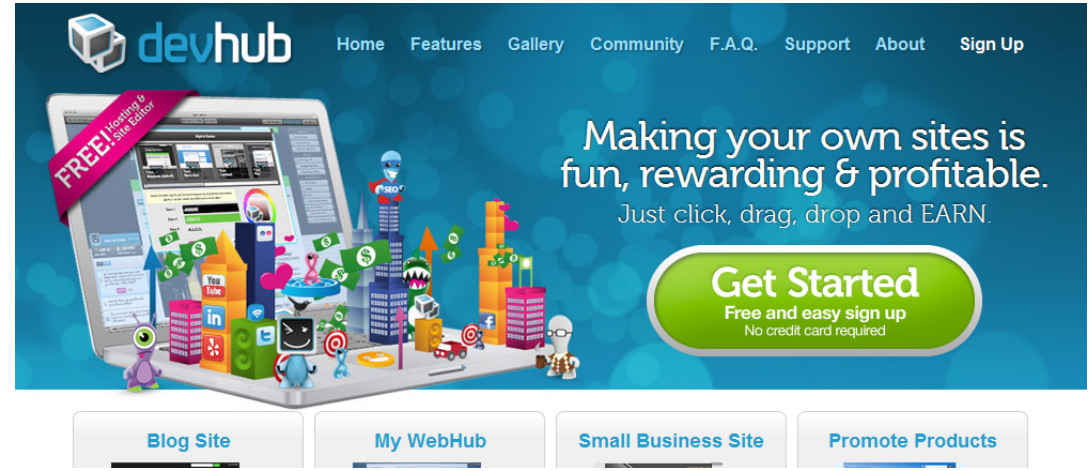


Figure 6. Screenshot of Devhub's website. (Qayyum, Ali 2014).

Club Psych

Club Psych is a gamified website built around a TV program called Psych. The website uses challenges such as quizzes and joining the Psych fan club. There's also a possibility to interact with the show's characters on Facebook and Twitter through the Hastag Killer game. The mobile app allows users to interact with each other and to unlock prizes while watching the show. These points can be exchanged into virtual goods or physical merchandise, such as posters with the characters' signatures. After gamifying the website the overall traffic on the site increased 30%, online merchandise sales increased almost 50% and overall page views increased 130%. (Werbach & Hunter 2012, 68-69)

Figure 7. Club Psych Fronpage Screenshot (Clubpsych 2014).

3.1 Early Stage Benchmark Conclusions

Rewards are a great way to motivate people to overcome their fears or uncertainty that cause the lack of usage of the application. The challenges for getting rewards should be easy enough not to create desperation for the user, which may cause lack of usage. This problem can be overcome through localizing challenges in a social context when the user is not competing against the best of the whole world but against the best of the local area like in the Foursquares example. The level of challenges can also vary especially towards an easier level. Like in Fourquare's case, especially in the onboarding phase, rewards can be given just for basic usage of the application to encourage using it.

Simplifying the motivational rewards and reasons behind behaviors can be valuable so that the user knows what to do and when. As mentioned before, clear structures decrease the lack of volition (Dignan 2011). Gamification is also a great way to add storytelling content into structures where it hasn't been seen before. Storytelling can be a great way to decrease the boringness of tasks like in the Devhub case. After all a well implemented gamifying process can be a great boost for services like in the Club Psych case where the overall page traffic more than doubled.

4 User Study

After setting the objectives and gaining the necessary knowledge of the existing implementations and research concerning gamification, it is time to take a look at the user study of the target group. This phase of the thesis covers the so-called player profile of the final application. (Werbach & Hunter 2012, 84.) In the user study I decided to use the contextual interview method as it is proven to gain tactile, reliable and deep information about the user groups. Getting tactile information from the users was important as the application scope was open and therefore creating a reliable concept walkthrough was impossible. Observation as a part of the user study was also considered. Observing is a time consuming method and also because of the lack of meetings at the office during the user study phase, the method didn't fit to the project schedule.

4.1 Conducting the Interviews

See the interview template on the next page.

As the objective was to get a reliable database for further designing, it was very important to avoid affecting on the user's answers by leading questions without a specific purpose. In some points of the interview the aim was to reach shared understanding and because of that some questions were leading.

In the focus phase (questions 4-5) the aim was to create co-designing with interview participants. Not only the answers by the user's but also the answers and questions by the interviewer were lead and directed to create new ideas and deeper understanding from both sides of the situation. This phase aimed to create brainstorming-like idea rich content.

There were 11 participants. The sample size followed the basis of contextual interview. Because most of the participants were in high positions such as CEOs, and therefore very careful about their public image, it was necessary to guarantee total anonymity for the participants in order to get honest information. If the users' answers couldn't be trusted the user study phase would only have been misleading and therefore would have had a negative effect in the further development. (Beyer & Holtzblatt 1997, 945.)

The rough concept idea was presented as part of the interviews to open up the participants' minds for the possibilities through an example. Linja's office dog Alvar has been presented for a few times on Linja's facebook-page and worked as an inspiration for the idea. While creating the visualization Isen's theory of a positive affect was strongly emphasized.

4.2 Interview Template Theme for conducting the interviews.

1. The interview is a part of my thesis. I'm developing an application for waiting situations to make the waiting before meetings more pleasant.

First question. How do you spend your time before meetings if you arrive to a space where you do not meet other people and you have to spend your time alone?

2. The thesis relies on a theory that when people feel happy, they have better access to more varied material in their memory. They are more creative problem solvers because their minds are more "alive",' and they are less easily confused" - Alice Isen

"What would make you happier before a meeting situation?"

3. What would be the best imaginable thing for making you happy in this context? Previous experiences?

4. OK, here I have and idea about a tablet application. The final application will take its place at Linja office. I approached the app from a naive aspect, which could entertain people and take them away from the excitement through a little surprise. The app contacts a user instead of the user contacting the app and it will have a small talk dialogue.

"What do you think about it? How do you like it?"

5. Anything else came to your mind?

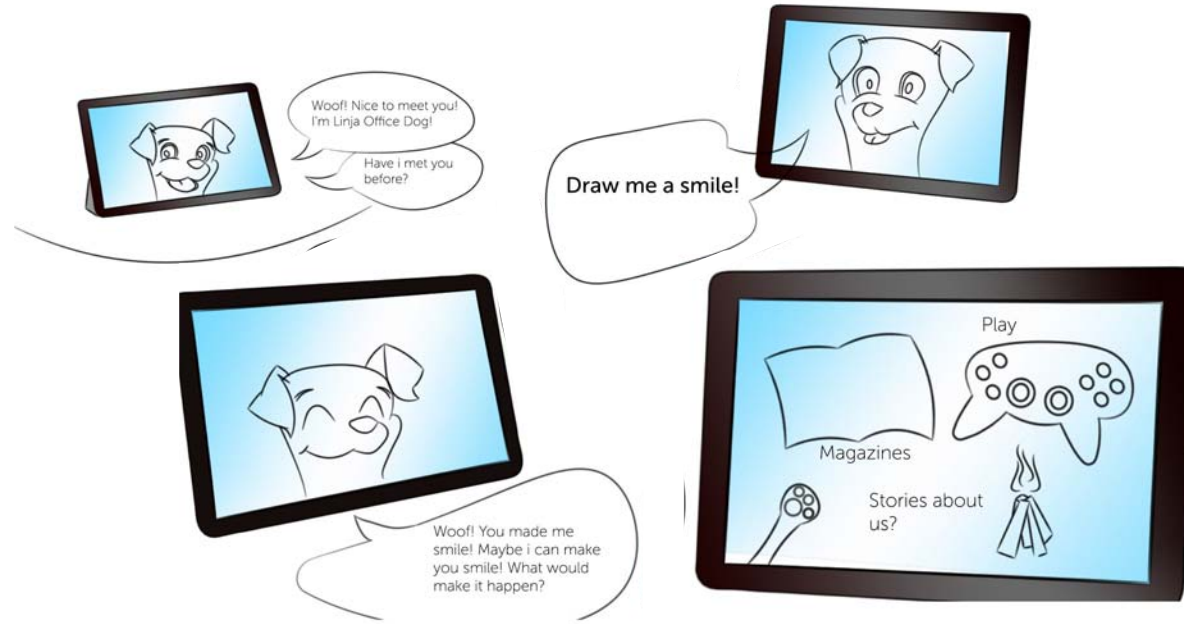


Figure 8. Visualisation of the idea of the question number 4.

4.3 Results

The interview answers were grouped into affinity diagram and answers provided only by 1 participant were left out from the summary to clarify the focus points for the design process.

The existing behavior, which can be assumed to be a personal interest, was roughly divided into two main groups. The orientation group consists of participants who were into preparation and communication. The group is indicated with grey color. The other group, which is indicated with orange, was into relaxing and taking a break from work by browsing social media, magazines or playing games.

The desired content from the preliminary situation before the meetings in the target group was divided into four main groups: relax, games/ activity, preparation and exclusivity. These groups work as a base for creating the user personas.

Some of the users also felt the presented visualization to be too naive but on the other hand most participants felt the visualized idea to be positive. Both of the groups will be concerned in the process.

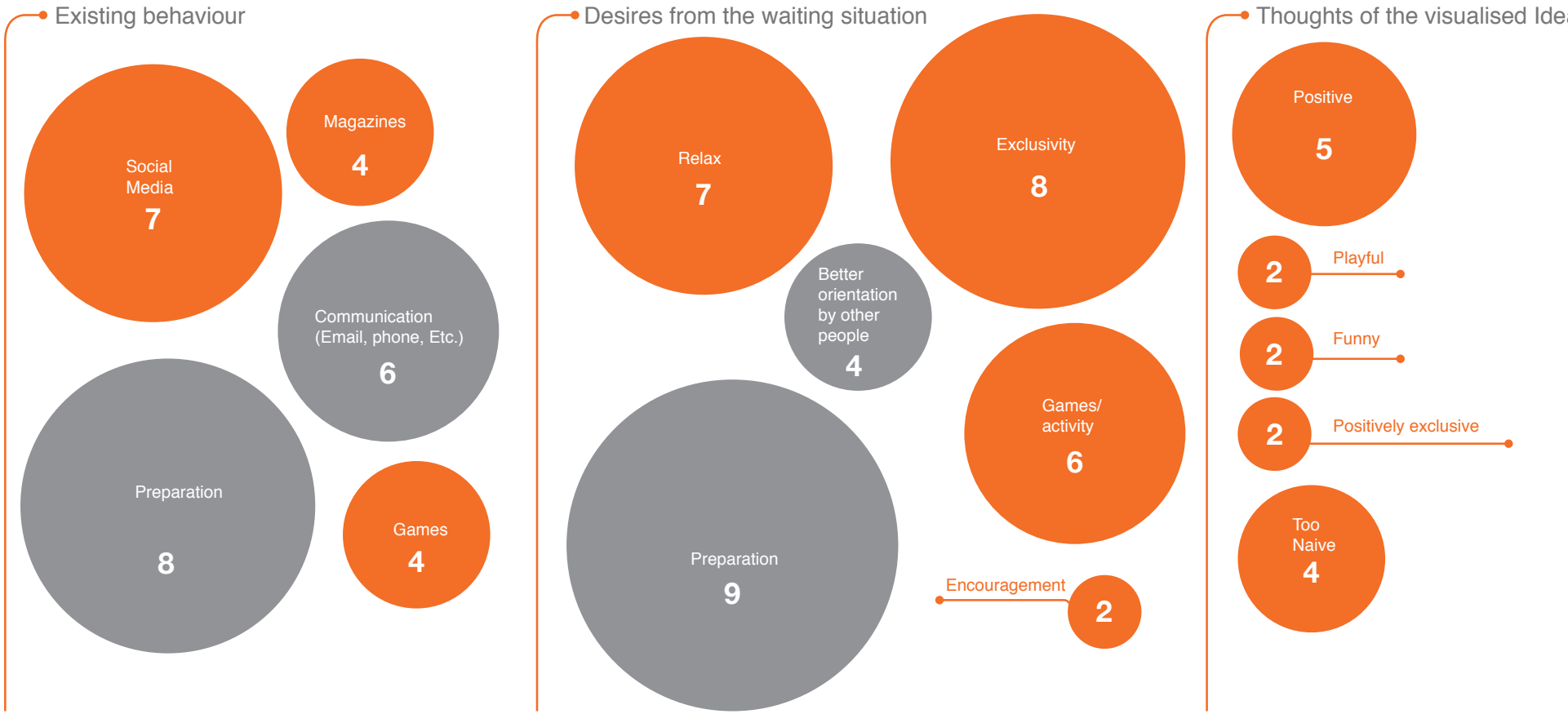


Figure 9. Visualisation of the interview answers' distribution based on the affinity diagram.

4.4 User Personas

See the user persona cards on the next pages The user personas are based on the affinity diagram. The creating of the user personas will be explained in this section. The personas worked as drivers for the further design work.

Names

The persona names are related to the key points of the user's interests. Generally in the design field personas are often named the way real people are. To avoid the using of made up misnomers the names were replaced with behavior descriptions. (Johansen & Christ 2012.)

Quotes, Goals and Frustrations in the personas

Quotes, goals and frustrations were from interviews in their original form. To create effective personas it was important to follow the original database, which was gathered during the interviews. (Johansen & Christ 2012.)

Liability and Skill Bars

Bars on the lower left in the cards present the liabilities and the skills of the user personas. This is the only section that is based on subjective analysis of the data and because of that the results are not presented in numbers. Due to the small size of the interviewing sample the study does not present scientifically proven data. Avoiding the misunderstanding of the reliability of results is important in a qualitative research to avoid mistakes in design choices in later phases of the process. The results can still be used as an inspiration for further concept development if understood and used with appropriate criticism. (Hannington 2010, 23.)

Profile Pictures

The aim of the user personas was to work as a reliable database for the further development. Traditionally used randomly selected user persona pictures were left out from the content because they would only be misleading. (Johansen & Christ 2012.) The pictures of the interviewed people weren't used because of the guaranteed anonymity.

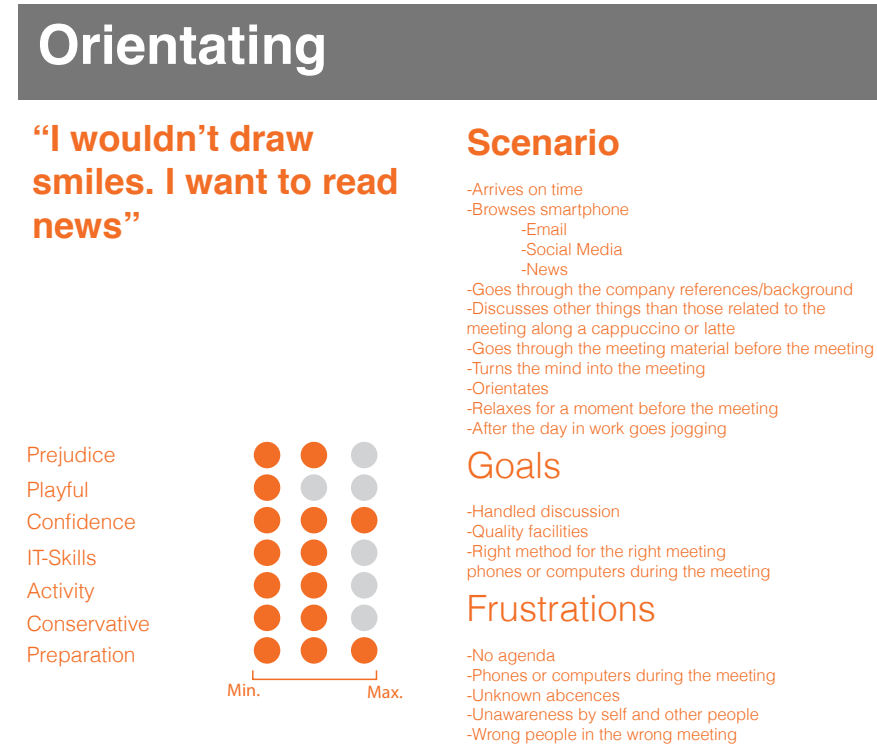
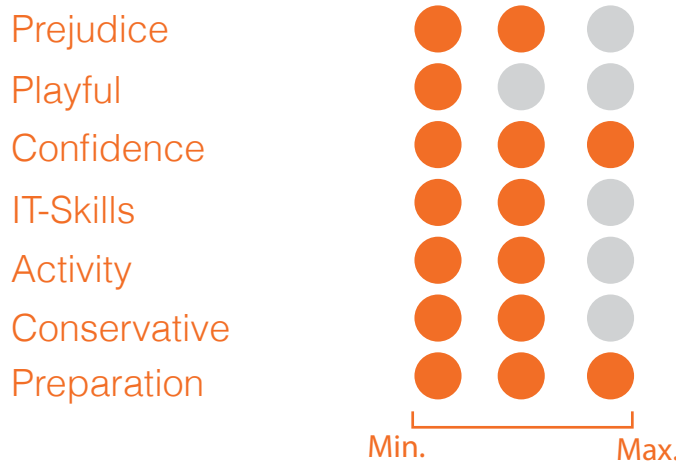


Figure 10. User persona card of the orientating group.

Orientating

“I wouldn’t draw smiles. I want to read news”



Scenario

-Arrives on time
-Browses smartphone
    -Email
    -Social Media
    -News
-Goes through the company references/background
-Discusses other things than those related to the meeting along a cappuccino or latte
-Goes through the meeting material before the meeting
-Turns the mind into the meeting
-Orientates
-Relaxes for a moment before the meeting
-After the day in work goes jogging

Goals

-Handled discussion
-Quality facilities
-Right method for the right meeting
phones or computers during the meeting

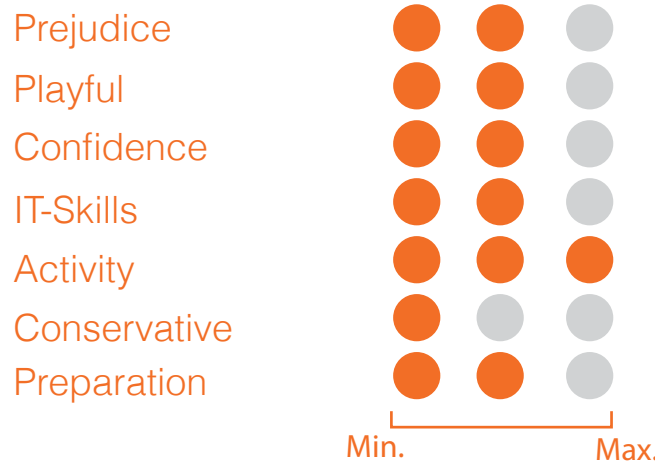
Frustrations

-No agenda
-Phones or computers during the meeting
-Unknown abcences
-Unawareness by self and other people
-Wrong people in the wrong meeting

Figure 11. User persona card of the orientating group.

Welcome and serve me

“Proper serving is important. I might not even be eating but I take it as a compliment. Ex-clusivity is valuable”



Scenario

-Arrives in time / late
-Browses smartphone
    -Emails
    -Social media
    -Random browsing
-Reads professional magazines
-Talks to the people
-Enjoys the atmosphere and smiles to everybody
-Takes a capuccino or latte and some snack to the meeting
-Goes for a drink with collegues after the day at work

Goals

-Open discussion
-Social flexibility
-Acitivty
-Being welcomed

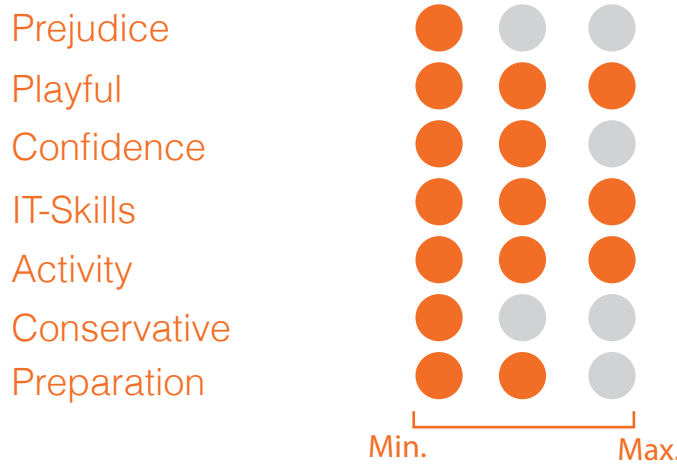
Frustrations

-Hierarchy
-Introvertness

Figure 12. User persona card of the welcome and serve me group.

Playing

“Warm tone of voice works for me. I’m not afraid of breaking rules”



Scenario

-Arriving sometimes early sometimes late
-Listens to music
-Browses smartphone
    -Games (Candy Crush, Clash of Clans)
    -Social Media
-Eats and drinks a large latte before the meating

Goals

-Joy / Having fun
-Relaxed discussion
-Action
-Content
-Questioning

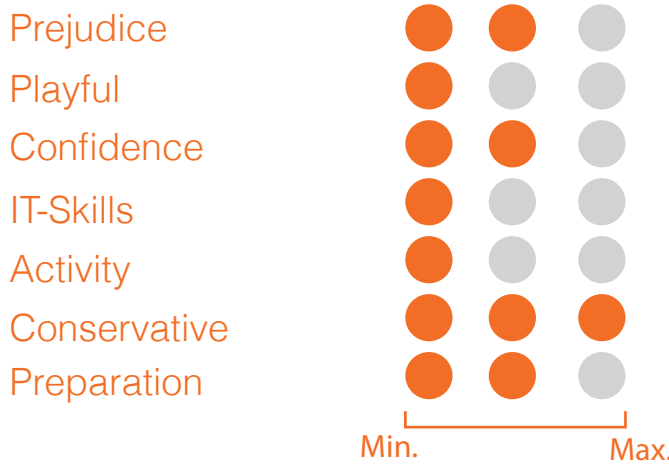
Frustrations

-Formality
-Hierarchy
-Slowness

Figure 13. User persona card of the playing group.

Silence is bliss

“People are always late nowadays and it seems to be acceptable. People should respect the meetings by arriving in time”



Scenario

-Reads a newspaper of the day during the breakfast
-Comes to meetings by car
-Arrives early
-Drinks a cup of tradional americano before the meeting and possibly discusses the meeting goals
-Checks emails and missed calls
-Reads magazines
-Likes meetings to be functional and efficient
-After work goes to play golf
-After golfing watches nature documentaries at home

Goals

-Efficiency
-Function
-Quickly in and out
-If not working want’s something else to think/relax

Frustrations

-Waste of time
-Bad habits
-Stressfull environment
-Rushing

Figure 14. User persona card of the silence is bliss group.

5 Brand Analysis

5.1 Linja Design as a Brand Persona

After the user study it was necessary to study Linja's brand image to gain a base for design choices concerning the copy content and visual features of the concept. Together with Linja's CEO Vikki Noreila I created a brand persona for Linja design based on Aaron Walter's persona template (Walter 2013, 36-40).

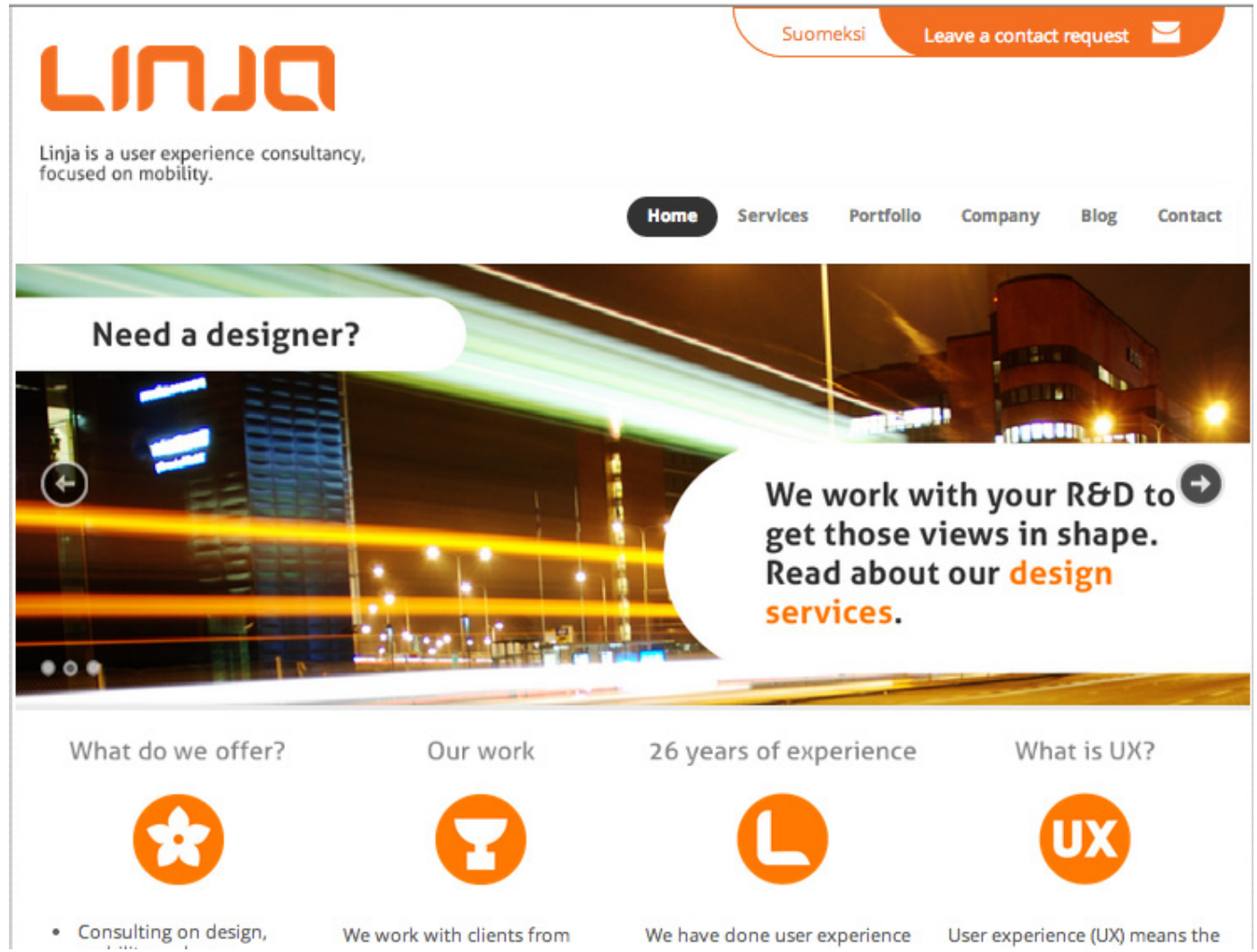


Figure 15. Screenshot of the frontpage of Linja Design's website (Linja Design 2013b).

Overview

Linja is an open person, who welcomes everybody to visit. In its café Linja offers serious talk about design choices behind the user experience and user interfaces - but always offers a cup of the very best coffee with a story of its origin. Linja also likes to play Foosball every once in a while between working hours because an open mind is one of its secret weapons and no mind is open without a bit of fun.

Linja as a person is dedicated, active and exact with standards of education and training that prepare its members with the particular knowledge and skills necessary to perform the role of a reliable partner in design challenges. It is contemporary, happy and devoted.

After all it is open, interested in people and cultures.
Linja likes to talk with content but with fun and interesting aspects. Debates are one of its great interests, not because of judgement but because of curiosity.

Trait is:
Exact, dedicated, contemporary, happy, excited, reliable and open

Voice:
Linja's tone of voice is fun but not foolish. You can sense its excitement but there's still a sound of experience and trust behind it. Over all Linja is happy and open. (Noreila 2014a.)

Copy Examples:

Thanks! I will contact you soon.
Vikki, Linja's CEO
(Noreila 2013.)

Thanks to Engadget, this article about capturing objects with sound waves and move them around moved also my brain around. This is a wonderful peek into the future of ultrasonic possibilities. What would you like to move by sound?
(Halme 2013.)

Emotional Engagement Methods:

Surprise and Delight

Innovation in business. Open and idea rich discussion in the blog. Excitement and energy in the meetings.
Orange color captures the excitement and the happiness of Linja. Grey gives a hint of reliability and experience.
(Noreila 2014a.)

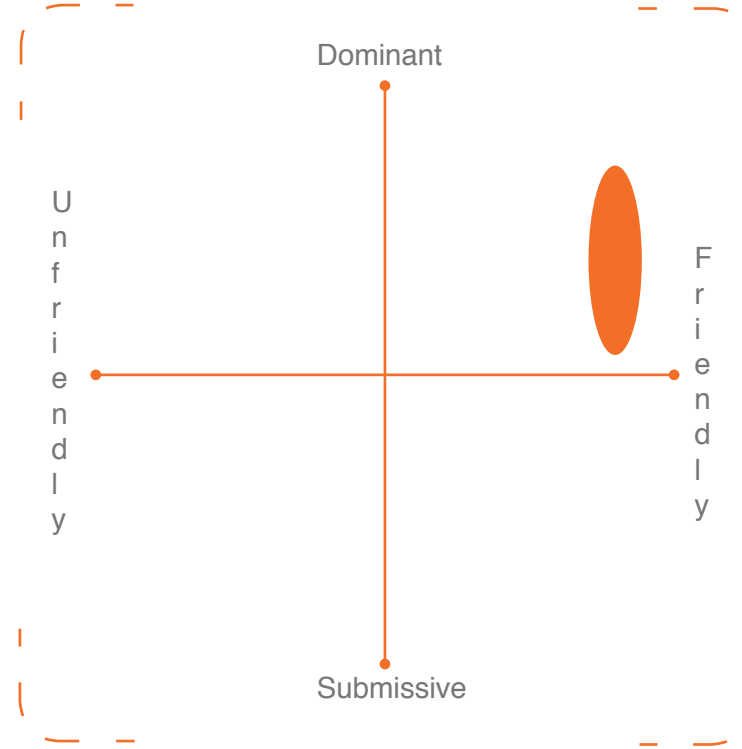


Figure 16. Linjas persona on a fourfold table of brand persona's behavior.

5.2 Website Analysis

The app will be used on a website that will most likely be linked to Linja's website. Therefore it was necessary to do a proper walkthrough for the visual elements on the site to strengthen the visual continuity between the app and the website. See the screenshot of the front page in figure 15.

Orange color on the website highlights links, logos, buttons, icons and other usability related features on the site such as the countries on the map (figure 17) indicating where Linja's operations are located.

Independent icons make the impression light and clear. Almost all of the shapes are close to basic circles and squares with no or little extra features and rounded corners.

The simplicity of the shapes makes the website experience functional and clear but possibly a little boring and the website has a lack of personality. In their simplicity visual elements seem to fit some of the brand persona's previously listed trait is, such as "Exact", "Dedicated" and "Reliable" but the experience seems to lack some of the "excited" trait. Therefore it is considerable to differ from the website's visual design in designing the game as an aim to create a more excited impression.

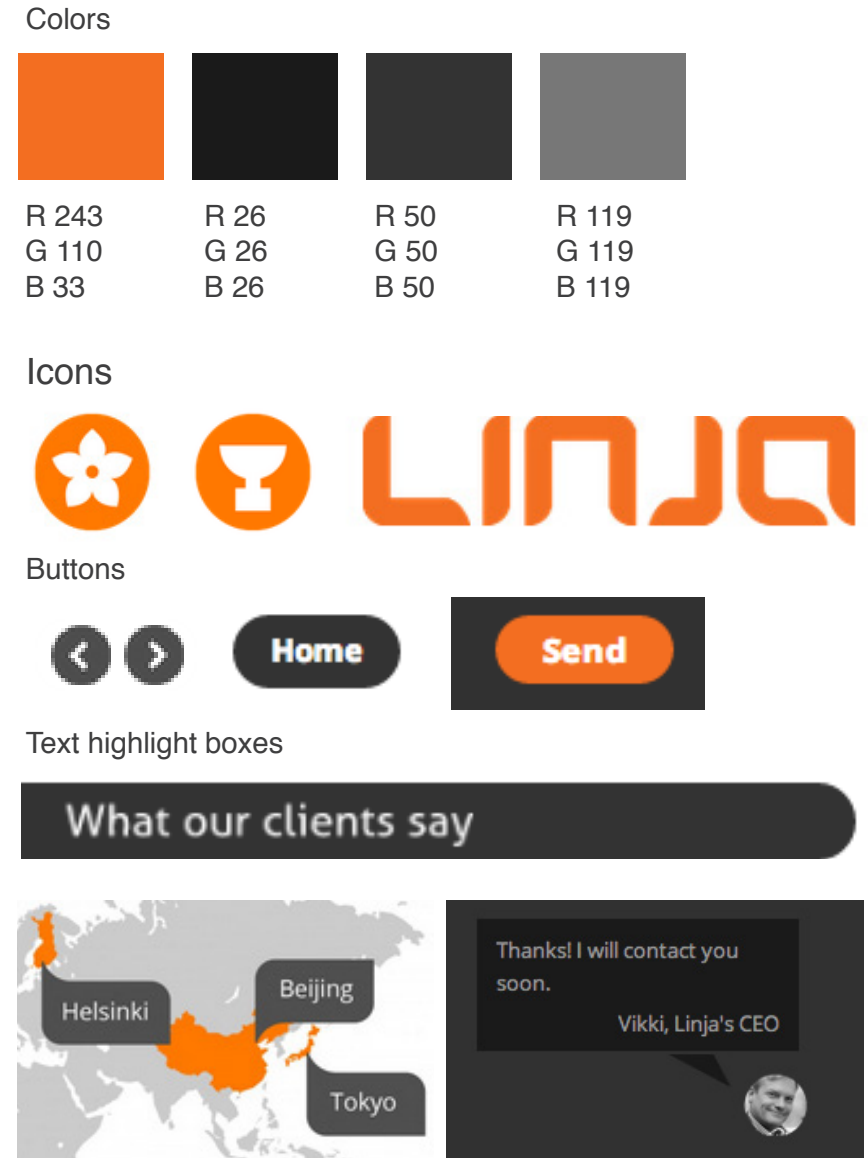


Figure 17. Elements on Linja Design's website (Linja Design 2013b).

6 User Needs as Game Mechanics

The concept relies on Alice Isen's theory that a positive affect before a work task makes users more creative and better problem solvers. Therefore the next step in the process was to convert the user persona's interests from the waiting situation, which were based on the user study, into fun. To convert the content into fun I used XEOdesing's PX (player experience) map, which divides the fun into 4 different categories: Easy fun, hard fun, serious fun, and people fun. The following findings will be emphasized in the design of the final concept.

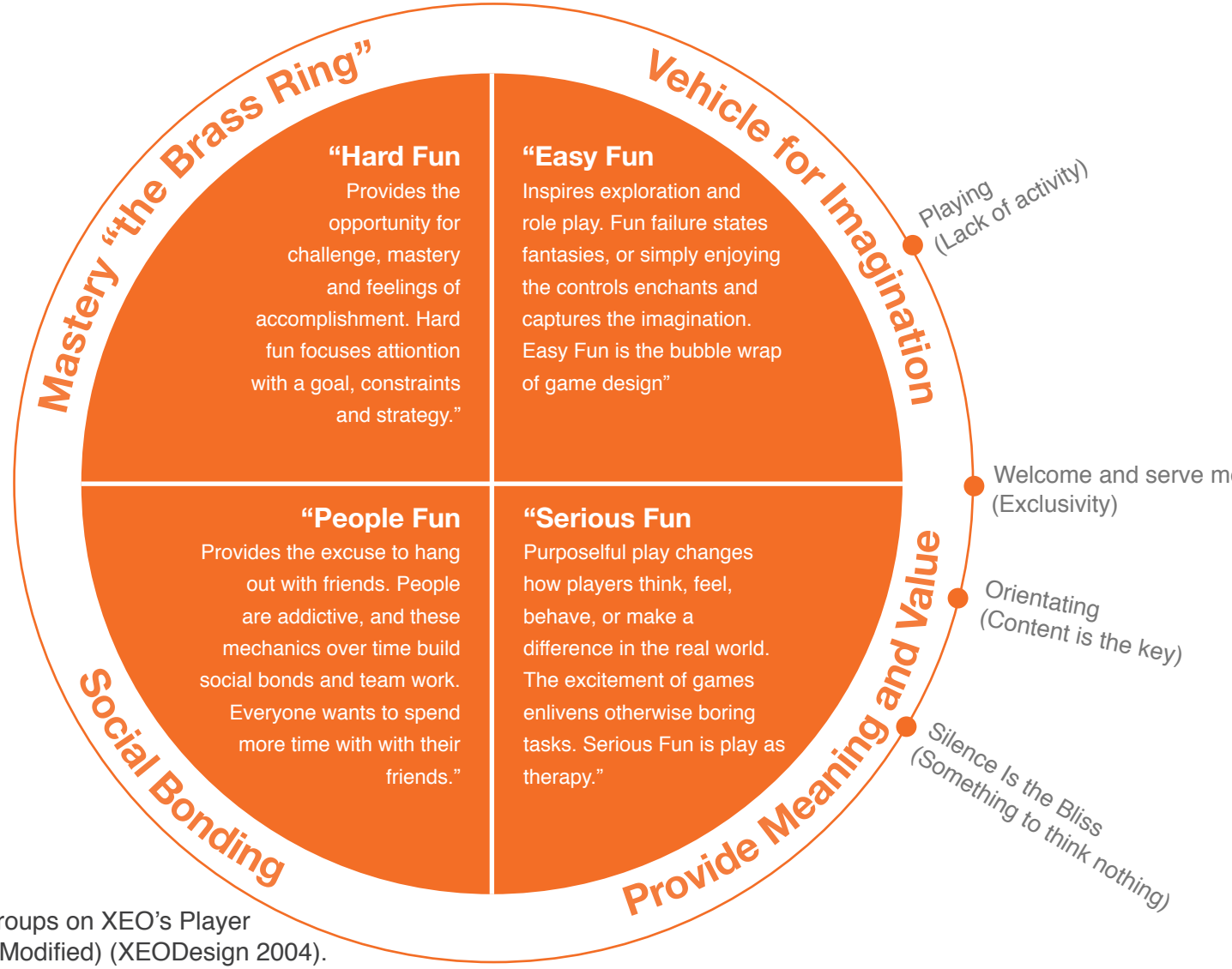


Figure 18. User groups on XEO's Player Experience map (Modified) (XEODesign 2004).

The user groups were into activity, exclusivity, orientating and relaxing. By adapting the XEO's Play Experience Map to user needs the "easy fun" and "serious fun" were found to meet the user needs. The user personas are located between the fun types in figure 19.

By studying the XEO's Player Experience map, two game mechanics can be discovered to meet the user needs . Chances as one mechanic in the games allows exploring and off-track playing for the user, which are typical for easy fun. Feedback supports learning and changing real life thinking, which are typical for serious fun. Mechanics are based on the related emotions and actions, which are explained in figure 19.

Chances in the games mean exploration and surprises, which answer to the curiosity and the need of activity of the users. From the player's perspective this means freedom of choice concerning player tasks and a possibility for off-track play.

Feedback as a game mechanic is important, as the aim is to create an educational experience. Therefore it is important to give feedback for the player about their learning progress. Feedback can be for example rewards after accomplishing a challenge or a leaderboard, that indicates the progress during levels. XEO also recommends to use funny failure states to make the experience feel less like "Hard fun" and more like "Easy Fun". The rewards shouldn't be too based on challenges so that the experience can still be relaxing for the "Silence is Bliss" user group. (XEODesign 2004.) (Werbach & Hunter 2012, 77-78.) See the descriptions of easy and hard fun in figure 19.

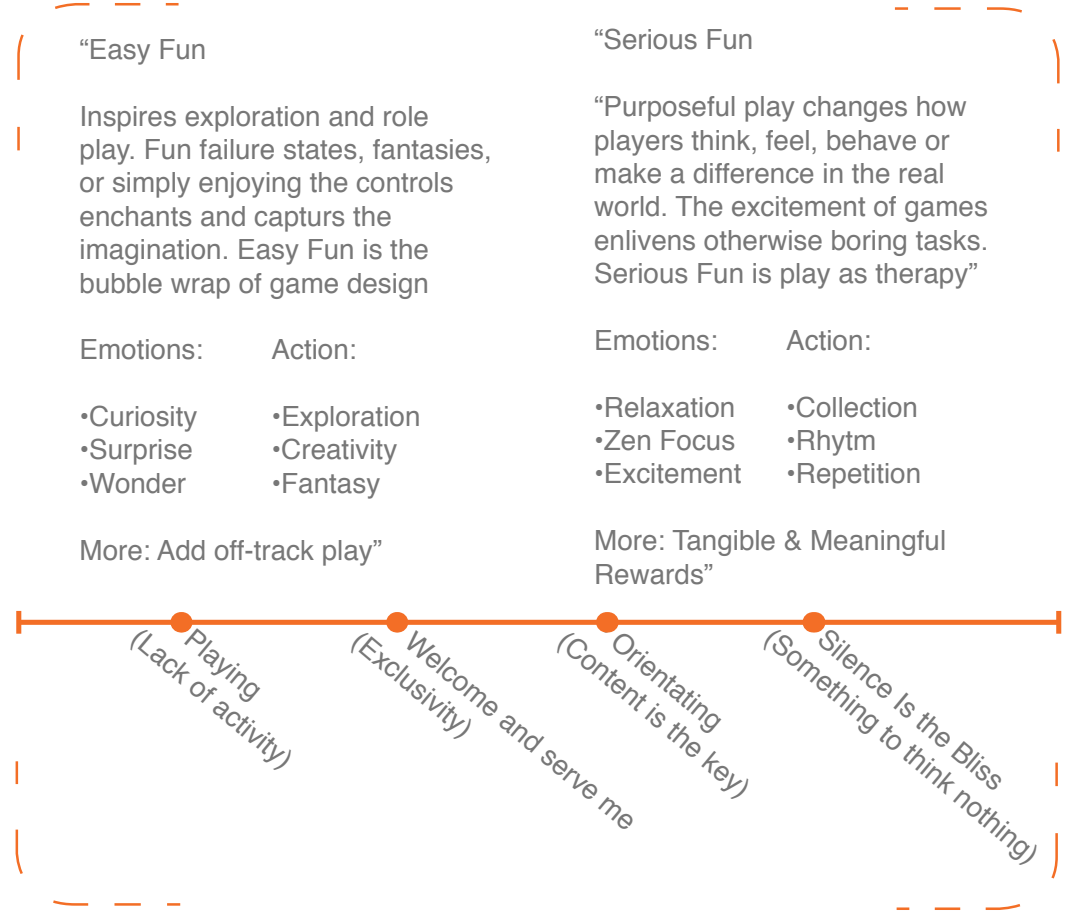


Figure 19. Explanations of the serious and easy fun of XEO's player experience map and user groups located between the funs based on the relatedness.(XEODesign 2004.)

6.1 Motivating the Users

Games are great for motivating people to do tasks and that's one of the main reasons why gamifying has become so popular. In this thesis I'm not about to dive deeply into psychology but it is important to divide the motivation into main categories, as the next step is to connect the user needs into Linja Design's business objectives. (Werbach & Hunter 2012, 50-67.)

Motivation can be roughly divided into two types:

Intrinsic motivation means wanting to do things for no external reason. For example we enjoy eating good food or lying on the beach. (Werbach & Hunter 2012, 50-67.)

Extrinsic motivation on the other hand means the kind of motivation, which is external from ourselves. For example we may work for money or study for good grades in a way that we're not interested in the work or in the subject of the study it iself but in something that works as an indirect benefit for us. (Werbach & Hunter 2012, 50-67.)

In the case of this thesis the intrinsic motivation of Linja's clients are relaxing, orientating, getting exclusive treatment and need for activity, which were found previously in the user study phase. Through XEO's player experience map the game mechanics "chance" and "feedback" were found to fit to the user's intrinsic motivation.

The more the extrinsic motivation meets the intrinsic motivation, the more effective the motivating of users to do desired actions will be. In this case the desired action is the learning of user experience design terminology. To educate the users about the terminology, the content should be presented in a form that feels like intrinsic motivation for the users. Therefore the form should meet the user behavior foundations from the player experience map, which were curiosity, need for fantasy and exploration etc. These behaviors should be emphasized in the creation of final concept.

7 UX-Design Studio as a Game

Games consist of activity cycles. An activity cycle means the progressive continuity between fighting, earning and buying in games. For example you fight against monsters, then you earn gold and with gold you can buy bigger weapons to fight against bigger monsters to earn bigger amounts of gold. Seamless continuity and balance from one phase to another in an activity cycle is crucial for creating effective gamifying. (Morgan, Stephanie 2011.)

The aim was to explain the terminology and the actions behind the UX-design process through playing. In order to find out the root structure for the game, the next step was to break down the basic procedures in a UX-design studio into a game-like activity cycle format. See figure 20 for all of the common game mechanics linked to user experience design office procedures as an activity cycle.

After breaking procedures into game mechanics, three factors, one from each section, form the root of the activity cycle structure (Figure 21).

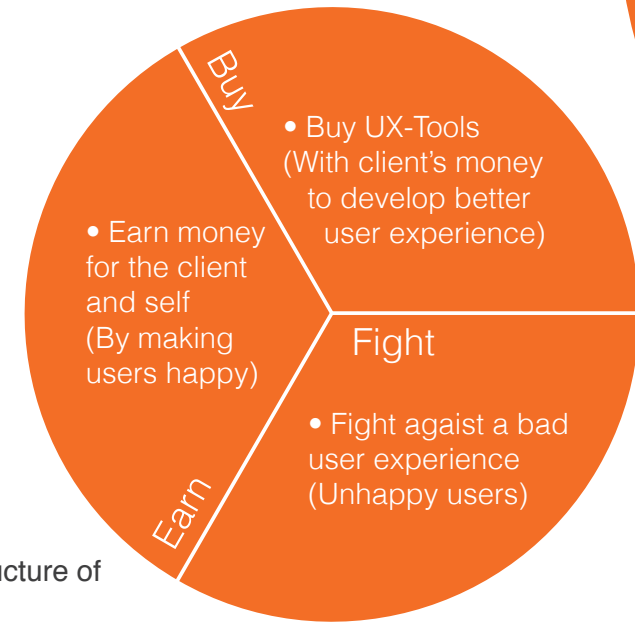


Figure 21. Root stucture of the activity cycle.

Figure 20. all of the common game mechanics linked to user experience design office procedures as an activity cycle.

8 Benchmarking

A detailed UX-design process would be too complicated to convert into a game form. The player actions would get too complicated to learn considering the timescale in the meeting situations. Therefore the benchmark covers games that include simple player actions, but have rich content such as storytelling, education or characters, to meet the needs of different user groups. The needs as game mechanics were defined in chapter 6. A profound walkthrough was necessary as the analysis of the benchmark plays a big role in the further development of the concept.

Plants Vs. Zombies

Plants Vs. Zombies created by Popcap is a popular game for Mac, PC or for any of the most common mobile device platforms. In the game the player invests “Suns” to plant different “Plants” which shoot zombies as an aim to protect the house behind the plants. The activity consists of using limited supplies to eliminate different zombies, which all have special skills. The supplies have to load before the next usage and the loading time is related to the effectiveness of the plant. This way the challenge consists of investing the suns into plants so that the zombies die before reaching and killing the plants. (Popcap 2014.)

In the onboarding phase of the game it is almost impossible to fail the level so the player gets the overview of the activity cycle right in the beginning. After every level the player gets one more plant into the plant collection or a threat letter from zombies. The player can study the skills of the zombies and plants in the separated “Almanac” section (figure 23). The game also has characters showing up in between levels such as a crazy neighbor giving tips. This works as a story telling feature in the game. (Popcap 2014.)

The game mechanic of investing suns into plants to kill zombies is very simple, easy to learn and also forgiving. The game is still motivating with its rich storytelling and many details of the zombies’ and plants’ skills which are not crucial to know to play the game. The details have valuable depth from the progression aspect because after the succesful completion of each level more content unlocks as a reward for the achievement. The progression in the game consists of unlocking differently skilled plants and winning battles against zombie invasions that get more aggressive and bigger after each level. (Popcap 2014.)

Figure 22. Fighting scene (Popcap 2014)

Figure 23. Listing of zombies and plants in the “Alamanac” (Popcap 2014)

The Blood Typing Game

The Blood Typing Game is produced in-house by Nobel Media to further explain the benefit is of Nobel Prize awarded achievements for a younger audience
-Nobel Media (Nobel media 2013)

In the game a doctor figure explains the background, instructions and tips for the following mission. The nurse also explains the risks and rewards in the game so the user will get an overview of the compulsion loop already before playing the game (figure 24). (Nobel Media 2013.)

In the blood typing phase the player learns the logic of blood typing by accident if they are not interested in studying from the “education section” by reading. The game also gives funny feedback messages to give a bit of “easy fun” spice into a content that would otherwise be a little boring and serious (figure 25). (Nobel Media 2013.)

After accomplishing the level the nurse figure educates the user in the “Did you know?” -section about real life medical operations related to the completed level. The results are measured in “blood drops” from 0 to 5 and the face of the nurse is also more or less happy depending on the result (figure 26). (Nobel Media 2013.)

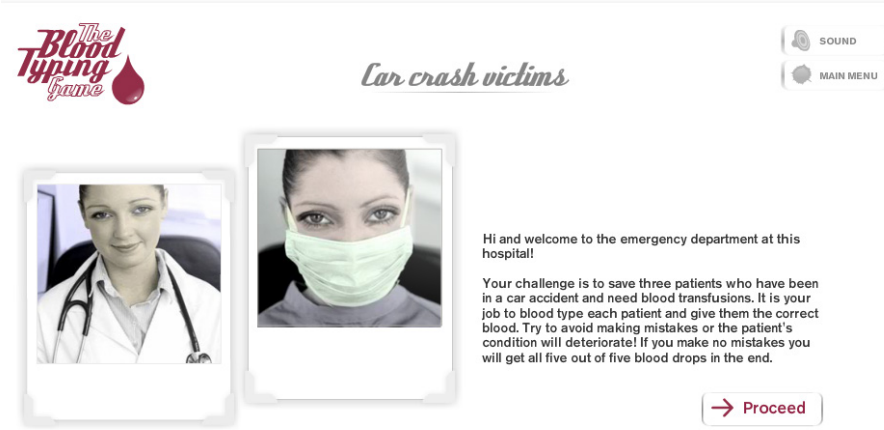


Figure 24 (Nobel Media 2013)

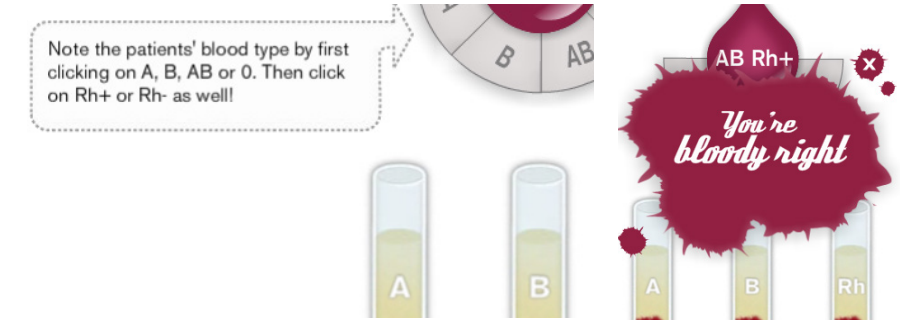


Figure 25 (Nobel Media 2013)

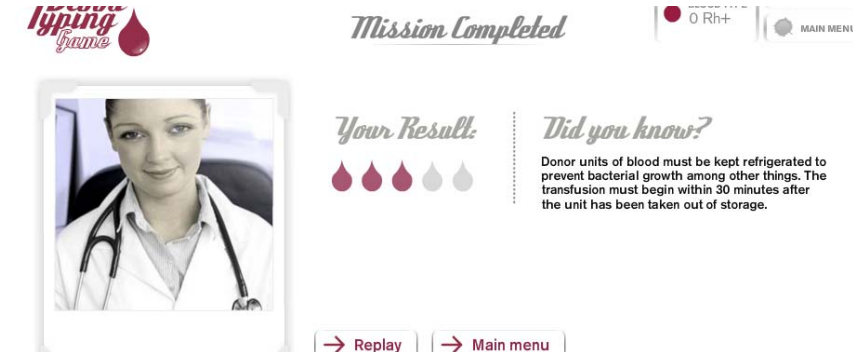


Figure 26 (Nobel Media 2013)

8.1 Conclusions

The following features will be emphasized in the creation of the final concept.

The loading time of weapons versus the approaching of enemies could be used in a user experience design context. The loading time of weapons could be replaced with time to finish project phases and the approaching of enemies can be replaced with a limited time scale i.e. a dead line. The objective is to explain terminology. Therefore the game could also include a kind of “almanac“-section, where the player can study terms and their meanings.

The game mechanics should be simple and easy to learn like in Plants vs. Zombies. The complexity of the behavioral content should be included in the automated behaviors of animated elements instead of player tasks. Easy understanding of the game mechanics must be ensured because of the limited time scale. The progression in the game could be similar to Plant vs. Zombies. Unlocking a new weapon after every level rewards the player and the created positive feeling motivates the player to continue the game.

The way in which The Nobel Prizes nurse explains the risks and methods is very clear. A similar approach would be good for explaining the terminology in the final concept. Some users may see the user experience design terminology as a boring subject. Therefore similar funny feedback messages as in the Blood Typing game could make the experience more interesting for those users.

Explaining the whole compulsion loop before the game motivates users to try the game. Also the explanations of real life effects of the operations can be very valuable for users who are interested in orientating to UX-design.

9 User Flow

Next in the process the root structure of the user flows had to be made. The structure works as a base for further development of the gamified concept. The structure is based on the user study and the best features of the games in the benchmark phase. The following objectives as an outcome for the playing experience were set with Linja's staff in the beginning of the process.

Summary of the objectives.

Open the client's mind

Through the reference cases the clients can get a better picture of all the possibilities of user experience design and of all environments where it can be seen.

Create Discussion

The aim is to create discussion and to break the ice in social situations. Therefore the game should be surprising for the clients.

Educate the terminology

The main aim is to explain the terminology. Because of that the application educates the player by showing Linja's references and also with metaphorical game mechanics in the play section.

Activate

Like every activity-based game also this one aims to activate the user before the meeting through playful challenges

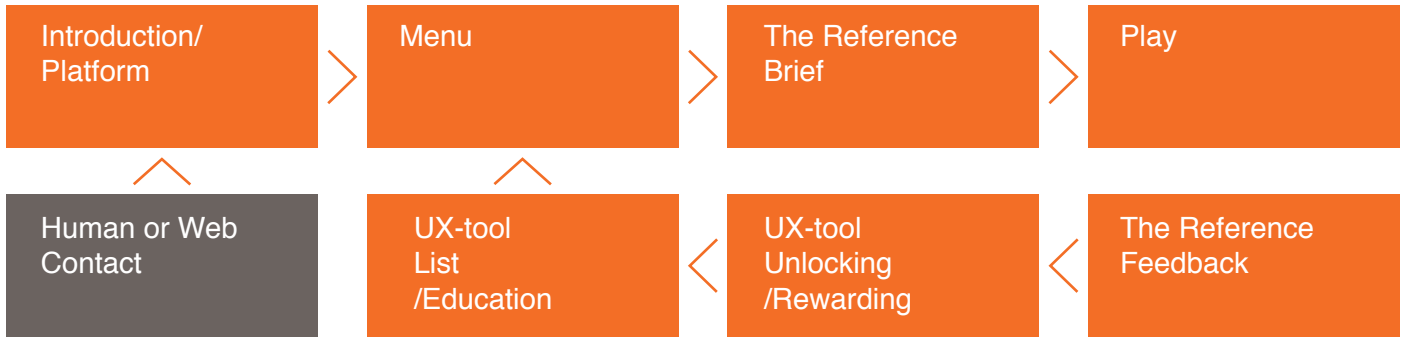


Figure 27. User flow stucture.

9.1 User Flow Walkthrough

Displaying

At Linja's office the game will be displayed on an individual tablet computer to avoid a competitional situation with the user's existing behavior. The users tend to use smart phones and other devices while waiting for the meetings. If the application was used on the user's own devices the application would compete against the user's favorite content, like browsing favorite websites etc. In the competition situation the application should have to overcome the quality of the user's favorite content and it would possibly cause unnecessary lack of usage.

Menu

In the Blood Typing Game there's an evaluation of the game's duration and an overview explanation of the activity cycle before the level. The menu phase will include same kind of content to catch the player's interest immediately. The menu phase will also include straight links to levels and to the UX-tool listing section.

The Reference Brief

This section will include creative briefs from Linja Design's history. The briefs work as a story telling feature in the game. The content's aim is to entertain the "Silence is Bliss" user group with storytelling. The content can also be interesting for the "Orientating" user group because of information. This section will also present Linja's UX-expertise through references.

Play

The game will include similar game mechanics as Plants Vs. Zombies. The player tasks are simple "supply-investment" decisions but the automated behaviors of the mechanics will have more details and skills. The mechanics will educate the user through metaphorical behaviors, which are related to real life UX-tools. The supply in the game will be the client's money, which the player uses to buy UX-tools. This way the game is quick to learn even by trial and error. The onboarding phase during the first level of the game will be very easy in order to make sure the player achieves the first reward. This way the overview of the activity cycle and the taste of rewards will be more concrete and catchy for the player. This section works also as an activating feature in the game.

The Reference Feedback

Like the Reference Brief section, the Reference Feedback section will also include feedback quotes from Linja's clients and present the expertise of Linja Design. This section will also include "did you know" explanations of the real life effects of the UX-tools, that the player has used in the game, the same way as in the Blood Typing Game.

UX-tool Unlocking/Rewarding

This is the most important part for the activity cycle. In this section a new UX-tool will be unlocked for the player as a reward for completing the level. The effect of the UX-tool in real life will be explained and this way the player will learn the meanings of the terms. The idea here is to limit the educational content instead of forcing the learning. This way the objective to educate about the terminology turns into user's intrinsic motivation based on the user's curiosity.

UX-Tool List

After unlocking the content for the player the listing section will include all of the unlocked UX-tools. The list was one of the best features in the Plants VS. Zombies game. In this section the player can study the real life meanings of the UX terms to learn to play the game better and also to understand the terminology. The aim of this section is to work as an orientating feature for the users who were mostly into preparation. After the UX-Tool List the user will be asked to play another level .

10 Concept Defining

10.1 Activity Cycle Mock-up Test

The activity cycle plays a big role in motivating the users. Therefore it was necessary to do to a careful walkthrough of the player actions. Definition is made through a visualized scenario wireframe. The following features and descriptions cover the wireframe but not the final prototype.

The game includes 3 different characters: users as orange circles, sales people as white circles and the client as an orange circle with a hat. In the game the users appear randomly at the top of the screen and move in three lines towards the white bar, which indicates a desk. At the desk the white circles, that are the sales people, take the orders from the users to the client. The player makes the users happy by tapping a UX-tool and then the users. The more happy the Users are before reaching the desk the more money they will pay when they meet the Sales People. The challenge is to make the users in the game pay more for the sales people than it takes money to use the UX-tools. In real life UX-Design's aim is usually to make the client's investments profitable by developing product experiences that gain bigger revenue in the market than the investment was.

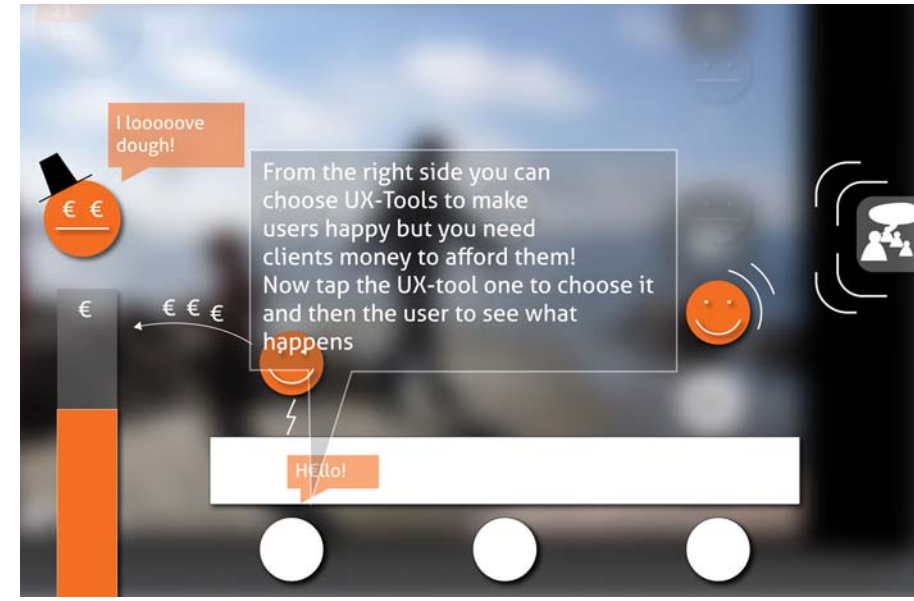


Figure 28. Mock-up: Onboarding

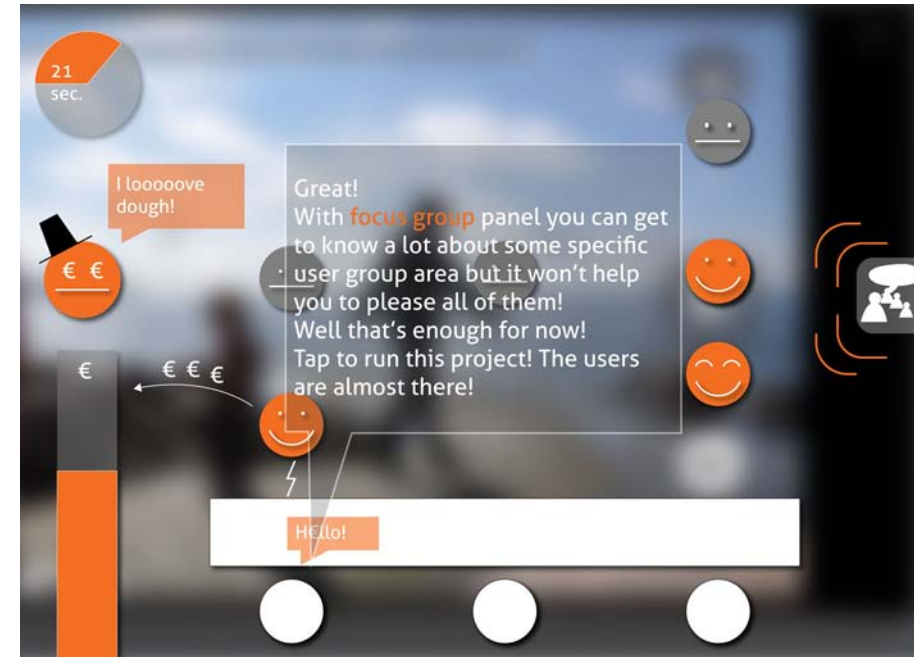


Figure 29. Mock-up: Onboarding

UX-Tools (Badges, Content Unlocking)

The player needs to choose UX-tools from the right side of the screen to make the users happy by tapping them. UX-tools have several different behaviors for making the users happy. The Focus Group Panel tool in real life gives information of some specific user groups meaning users who are close to each other in habit is, interest etc. Therefore metaphorically the tool has an effect on users that are close to each other on the screen. UX-tools will be unlocked for the player one by one after completing each level. All of this is possible only when the users are happy the same way as in the game

Money (Points)

The happier the user is the more money the client gets when the user reaches the desk. The users are the orange smileys above the white bar, which indicates the desk.

Money Indicator (Leaderboard)

When the user reaches the desk the happiness of the user transforms into money as points, which will be indicated in the orange bar on the left side of the screen.

Boss face (Leaderboard)

Boss face indicates how close the player is to accomplishing the achievement.

Clock (Leaderboard)

The clock on the upper left of the screen indicates the duration of the game

Users (Combats)

Users might be divided 4 to 6 groups related to Roger's technology adaptation curve. In the beginning of the level there will only be so-called "Innovators" or "Early Adapters", which according to Roger are interested and happy with anything as long as the product is a newcomer.

Figure 30. Game elements

Figure 31. Game mock-up screenshot.

10.2 Redefining the Activity Cycle

After a deeper walkthrough of existing studies about multimedia feedback I decided to base the feedback on the following principles. The principles are for animation in multimedia instruction and created by the researchers Richard E. Mayer and Roxana Moreno

1. Multimedia Principle
Present animation and narration rather than narration alone
2. Spatial continuity Principle
Present on-screen text near rather than far from the corresponding animation
3. Temporal Continuity Principle
Present corresponding animation and narration simultaneously rather than successively
4. Coherence Principle
Exclude extraneous words, sounds, and video
5. Modality Principle
Present animation and narration rather than animation and onscreen text.
6. Redundancy Principle
Present animation and narration rather than animation, narration and, on-screen text
7. Personalization Principle
Present words in conversational rather than formal style
(Mayer. Moreno 2002, 87-99.)

Dialogues

Dialogues should be presented in a narrative format. The dialogues and their characters should also be related to Linja's brand. In the later development of the application a professional copyrighter should develop the narrative dialogues if possible.

Timescale/Progression

To overcome the problems concerning the varying waiting duration the game progression structure should include instant feedback. This way the player can get rewarded while playing instead of only after finishing the levels. The next term, in the form of a UX-tool, can be presented once the player has reached such a level of using the tool that the understanding of the term can be assumed. Therefore the money indicator in the activity cycle mock-up indicates the player's experience. Instead of playing for the investment worthy situation the challenge could be created around the idea of fighting against the time deadline like in a real UX design studio. The limitation of the timescale is easier to understand for the user than the relation between investment and revenue. The structure of the progression could be based on the basics of a UX-design process. Therefore the progression takes the user naturally through the whole overview of the process and strengthens the understanding of when and why to use the tools.

The game shouldn't base too much on the limitations of the meeting situations because it can still also be played in other situations. Following the limitations of the meeting situation too much can have a negative effect on the possibility of the game working online and creating word to mouth advertising.

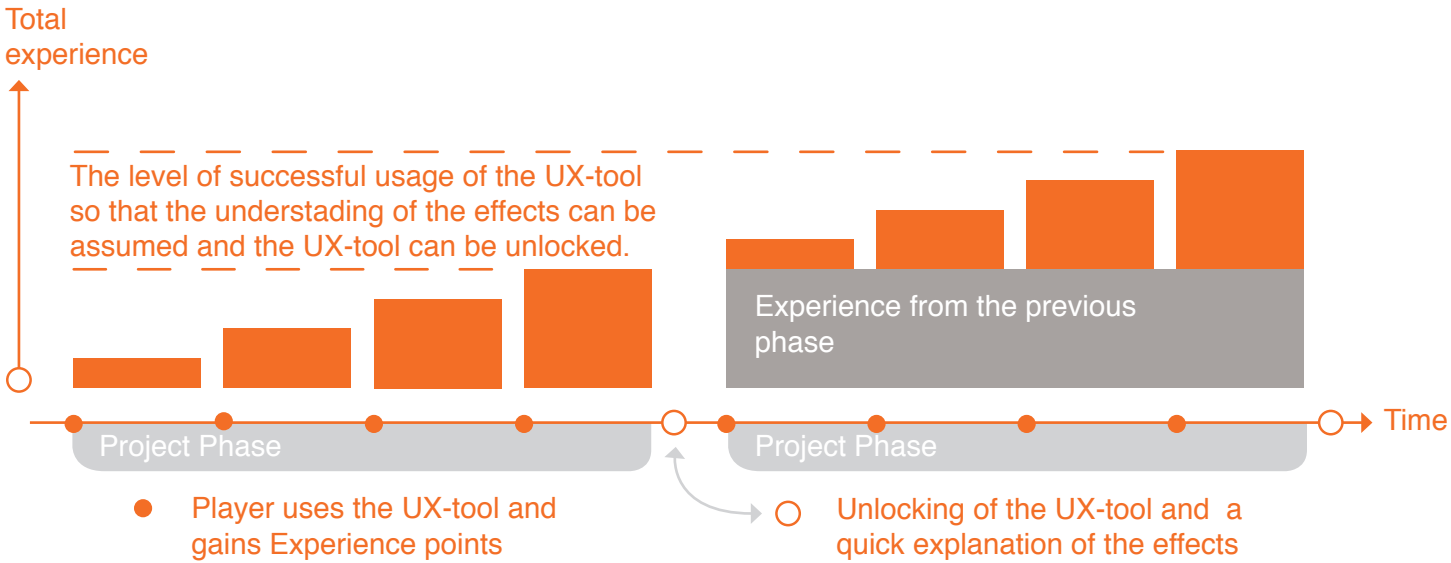


Figure 32. Structure of experience progression

The balance between skills and resistance

The balance can be defined later in the process through usability testing. On the other hand the resistance shouldn't lead to a game over, because the aimed effect on the user is a positive one. Therefore it is considerable to focus more on rewarding and on positive feedback.

Metaphorical behaviors

Users' understanding of the metaphorical behaviors is crucial as it is one of the base features in explaining the UX-terminology for the player. To ensure the understanding of the metaphores these behaviors should include real life related narration.

UX-tools and the related terminology will be defined with a survey covering Linja's staff because they are the people who in the first place use terminology that is not understood by clients.

Composing the users' appearance and movement

How the users move and appear on the screen is one of the main aspects that define the difficulty of the levels. Therefore the composition should be first defined by the designer and then taken into usability test once a rapid prototype is created.

Summary

It would be great to use more sophisticated user study methods in the further development of the feedback, such as eye-movement tracking. Because of the lack of external resources these methods will be left out of the project scope and maybe taken into use in later phases incase the concept gains financial funding. All of the mentioned features must meet the dimensional and other usability related guidelines. The providers of the most common operating system platforms such as iOS, Android and Windows Mobile constantly update the guidelines. After all, coherence, modality and redundancy principles should be emphasized in all of features.

10.3 Defining the UX-Tool Metaphores

This phase will define the chosen UX-tools and their metaphorical features.The definition of the UX-tool's metaphorical behaviors started with email interviews with Linja's designers. The interviews were done by email because most of the designers at Linja are very busy. The benefit of email interviews is the flexibility of answering. The designers had a few days to send in their answers. They were guided to provide quality instead of quantity because the aim of the process was to create a focused concept for a further development.

The problem with the interviews was the lack of participants. Luckily the designers who took part in the survey provided quality answers. The designers got excited about the application concept and because of that they also gave feedback and some ideas for further development. Interviews also raised up an idea of pleasing stakeholders in the game process to gain money for the projects. Based on the interviews the following UX-tools were selected to a development of the metaphorical behaviors for the game's UX-tools

10.4 Results of the interviews: UX-tools

The following UX-tools were selected to a development of the metaphorical behaviors for the game's UX-tools

Group 1. Research/evaluation UX-tools

UX-tools for collecting information or to qualify the existing design, usually with the aim to find focus points for improving the product.

Contextual interview:
Inexpensive. Demands accurate aiming but is an effective tool when it hit is the target.

Stakeholder interview:
Cheap. Works for stakeholders, not for users. This tool is effective for getting money for the projects at the beginning.

User observation:
Expensive. Really effective but slow UX-tool

Online survey:
Quantitative and hit is all the users with a wide range.

Usability test:
Expensive. Hit is the users one by one. The effect gets stronger in the last phases of the process. Before the usability test can be unlocked, one tool from group 2 needs to be used.

Usability walkthrough:
Like usability test but cheaper. Hit is few users.

Expert evaluation:
Tool for gaining feedback, money or experience without any users.

Utility walkthrough:
Like Usability test, but works better at the beginning of the project
.

Group 2: Creation/representation methods

UX-Tools for creating a description of the designed product, which can be analyzed with the UX-tools of group 1.

Paper Prototyping:
Very cheap. Fundamental tool for starting the process and for gaining the base knowledge for using the more advanced UX-tools. Missing the target isn't a problem because of the very cheap price and quick producing time. Works well for the users but hitting the stakeholders can have unpredictable consequences - sometimes positive and sometimes negative.

Lofi wireframing:
A little more expensive and slower than paper protoyping and needs more accurate aiming but works better for the stakeholders.

Rapid interactive Prototyping:
Expensive but effective. Slow to reproduce but works well for users and also for stakeholders.

(Linja's Designers 2014.)

10.5 Progression Structure

Games should include variable difficulty levels along the so-called interest curve to improve the playing experience. The first phase is onboarding, which aims to explain and present the basics of the game. In the Bossfight phase the game gets more difficult and after that the difficulty level eases into the rest phase when the player can catch their breath before the next challenge in the difficulty progress. The aim is to connect the different phases of the game through narrative storytelling the same way as the phases are connected to each other in the real UX-design process.

Since I was working as part of UX-Design marketing I realized that when choosing a studio for collaboration the client's main interest is previous experience of the UX-design studio. Therefore I decided to change the previous idea of money into feedback. The more feedback the player gains in the game the more experienced he will be, also with the terminology.

I decided to choose the following UX-tools for further concept development because I was experienced in using these tools due to my previous projects. Therefore it was easier to develop the metaphorical behaviors based on these tools.

The variability of difficulty in the game happens between the resistance and the player's skills. The player's skills rise faster than the resistance in the rest phase, which creates a situation where the player has better skills than the challenge is and the other way around in the bossfight phases. The resistance consists of the indirectly proportional relation between the needed points and the timescale to accomplish the levels.

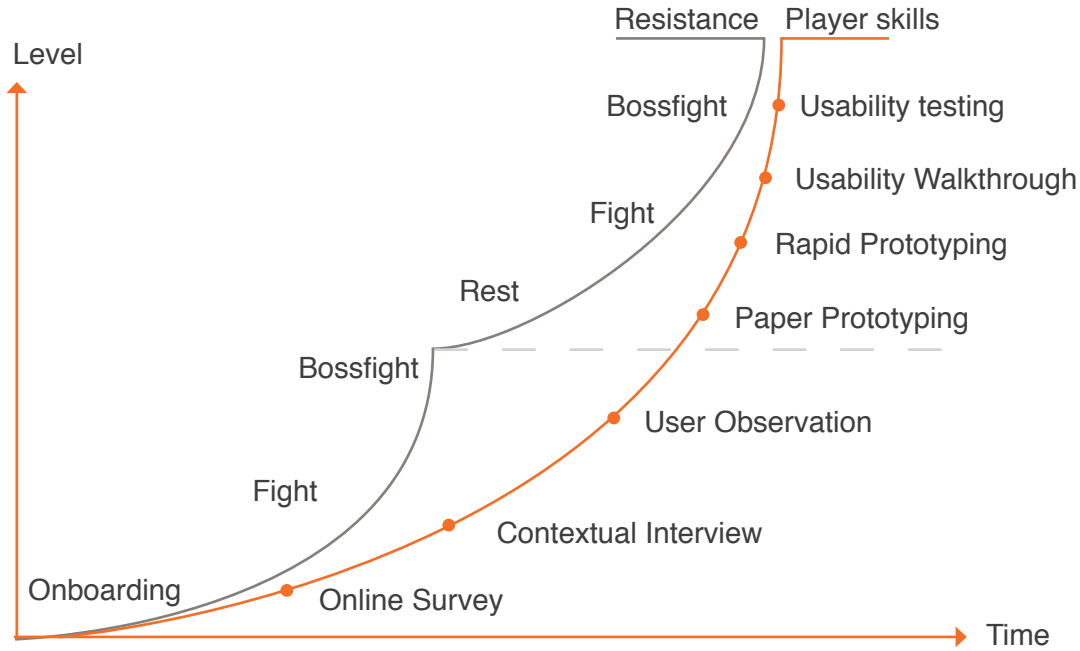


Figure 33. Game progress structure.

11 Concept Presentation

The concept walkthrough presents the game mechanics, structures and the look and feel of the concept. Final visualizing, copy content and animation would be made in the further development.

11.1 Introduction Scene

In the introduction the aimed impression is cozy and inviting. The “Help!” notification is aimed to capture users’ attention. The more detailed description under the help notification shouldn’t reveal too much of the activity cycle to increase the curiosity of the user.

The user starts to play the game by pushing the play button. The button is designed to stimulate the user’s naive curiosity with a bright color, clear description and big size which create a playful impression. The graphics of the game are by purpose angled and sort of “twisted” to give an adventure-like impression of the content for the user. In the final application the introduction page would have little animations to catch the users attention more effectively than a still picture.

Through the magnifying glass the visualization reveals a bit of what’s inside the game to stimulate the curiosity of the user. Linja Design’s logo is on the handle of the magnifying glass, which is a metaphore of Linja’s state as a source of the included knowledge.

Stripe like graphics behind the main elements in the visualization describe game like activity. Such graphics are common in many popular games as a part of winning states. The winning state like graphic tries to make the user sense the positive feeling of winning even before playing the game.

The orange color strengthens the continuity between the game, Linja’s website and the brand image. Visual continuity is also emphasized with simplistic shapes that are close to basic squares and circles like the graphics on Linja’s website .

The Aller font in the “Help” notification is the same font as in the headers of Linja’s website. A more detailed description is written with Open Sans which is used in bodytexts on the website.

Figure 34. Introduction screen.

11.2 Progress

The onboarding happens during the first level, which is easy enough to complete for almost anyone in the target group. This way the player gets an overall view of the mechanics, compulsion loop and other motivating elements. The aim of onboarding is to catch the player's interest in continuing the game. (Werbach & Hunter, 94)

The boss of the game sends instructions to the player during the game in a narrative format. Step by step the narrative instruction in the game creates a plot. The storytelling behind the instructions is based on my real life experiences from the UX-design field. The final application's storytelling should also be connected to real cases. Stories should be related to real life to enhance the user's understanding of UX-tools' consequences in real life. The instructions are also animated to strengthen the understanding of the player tasks. Animations will include same kind of guidance as in the visualization of the explanation screens. The animations will also explain the meaning of different forms of visual feedback such as progress bars etc.

At the beginning only one "UX-tool" is unlocked to simplify the gaming and to ensure the understanding. The locked UX-tools are displayed as anonymus light grey circles with a question mark. The striped light grey pattern in the game appears also in the time and feedback bars on the top of the page. The pattern in the game always indicates areas, which are empty but will be filled during the game. Sections are divided with thin strokes for easier scanning of the screen. Linja's logo is located on the top right of the screen to strengthen the brand experience as part of the game.

At the beginning the user gets the "Online Survey" UX-tool. The tool works in a metaphorical way like it does in real life. An online survey done in real life gives quantitative feedback and is cheap to implement through Internet. This method is also often used at the beginning of the processes to get an overall view of the user base and to find focus points for more qualitative user study. (Linja's Designers 2014.) Therefore the tool takes little time to load and works quickly on many personas with one tap.

Figure 35. Introduction of online survey UX-tool.

The activity cycle finishes at the beginning of the second level. The player unlocks a new UX-tool and gets positive feedback from the boss via email.

At the beginning of the second level the player will understand the differences between the tools. The boss explains how the contextual interview tool takes more resources but gives better feedback than the online survey. Therefore when the player uses this UX-tool he gets more feedback points when the process is finished.

Level by level the feedback need rises indirectly proportionally to timescale and makes the resistance harder. Therefore the unlocked UX-tools are also better after every level to help the user complete the levels.

In the level related message the boss explains the real life differences between the available tools. Some of the explanations, such as the benefit is of using the tools in real life, are not beneficial in the game, but are included in order to educate the player. The game also makes fun emotional contact to the player when the boss gives his trust and talks about losing clients etc. The final application should also include animation to support the narration and to minimize the need to read texts. This would improve the user experience. (Neil & Malley 2014.)

The third level is the first one of the so-called bossfights where the resistance gets remarkably harder than on previous levels. The target is to wake up the player and to make him really think about the effects of the UX-tools. In the bossfight phase there is a possibility of loosing the game if the player makes wrong decisions. Wrong decisions can be for example using only the online survey tool all the time, which does not gain enough feedback points for the user to complete the level. The Online Survey tool must still be used at some points when all of the more effective tools are loading.

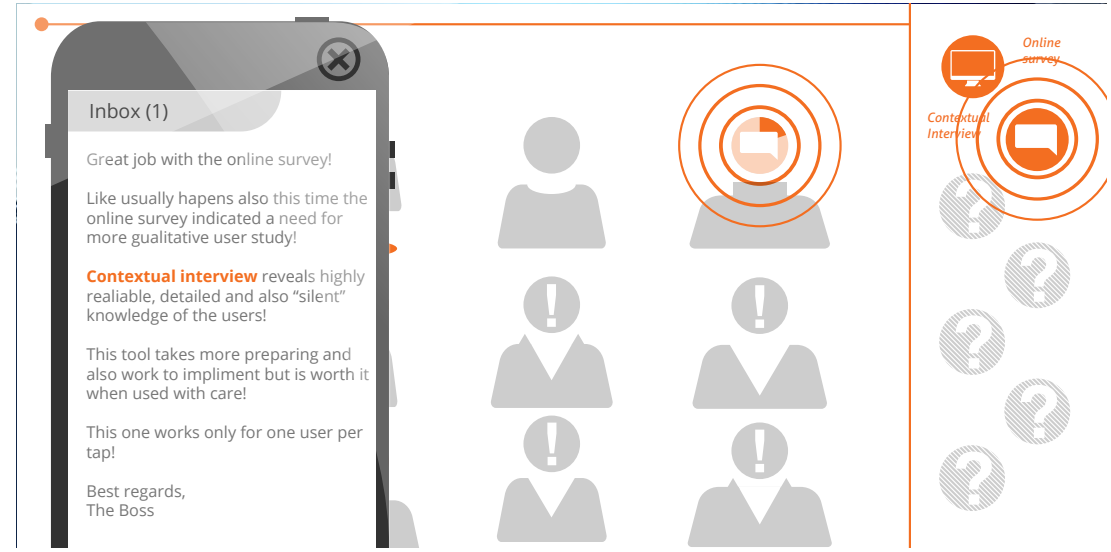


Figure 36. Introduction of contextual interview UX-tool.

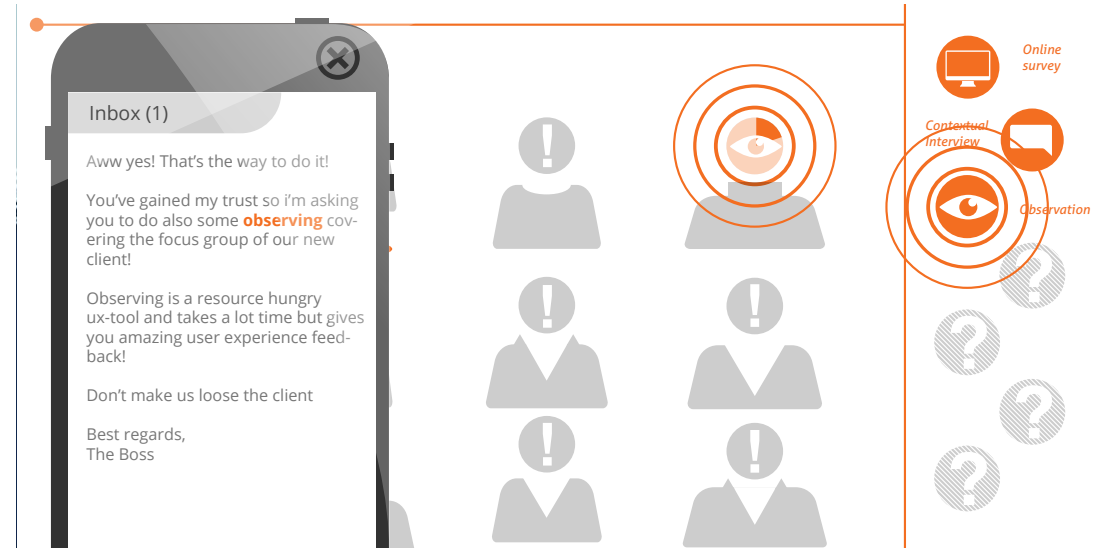


Figure 37. Introduction of observation UX-tool.

As the third level was harder to complete, the fourth level gives the user a moment to catch his breath. The boss introduces the paper prototype UX-tool for the player. This tool takes the complexity of the player tasks to a new level but as the level of resistance is lower, the player has more resources for learning.

The prototyping tools in the game work as boosters for the research tools. In real life prototyping explains the concerning design for the user as a part of research and boosts the feedback. It works the same way in the game. (Linja's Designers 2014.)

The game also steps to another level story wise. Up until this point in the game all of the UX-tools have been only about research. The paper prototyping tool includes UX-designing in real life therefore it does the same thing in the game but only in the storytelling.

Like on previous levels the boss takes the player further in the design process. On the fifth level the boss introduces the usability walkthrough UX-tool for the player. Usability walkthrough adds even more complexity to the game, as it also boosts the feedback of the existing tools. In order to use the usability walkthrough the player must choose one prototyping method to be the base for the walkthrough and a research tool as a way to get feedback.

The game gets more and more complex because of the limitations for combining UX-tools. When the player chooses one of the usability testing methods all the unavailable UX-tools will be dimmed on the screen. That way the player will always be guided through the selecting process.

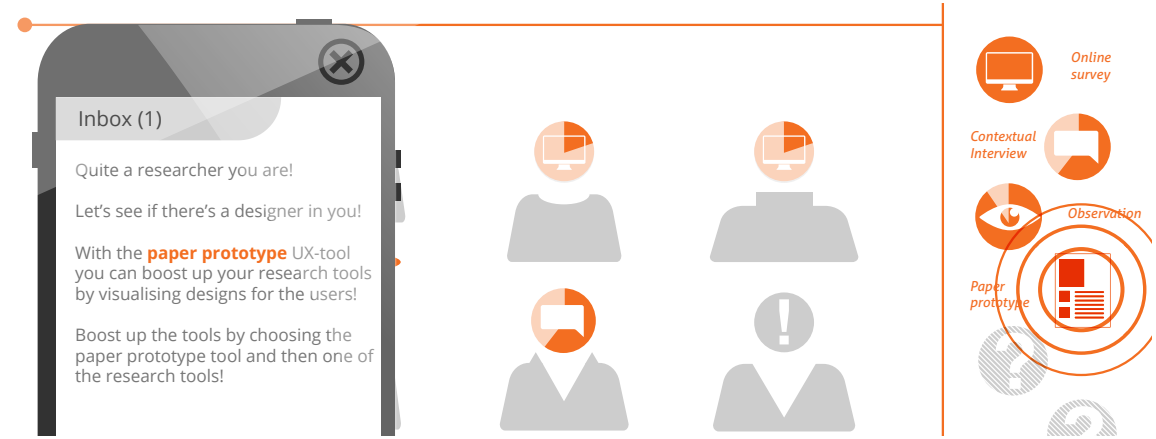


Figure 38. Introduction of paper prototype UX-tool.

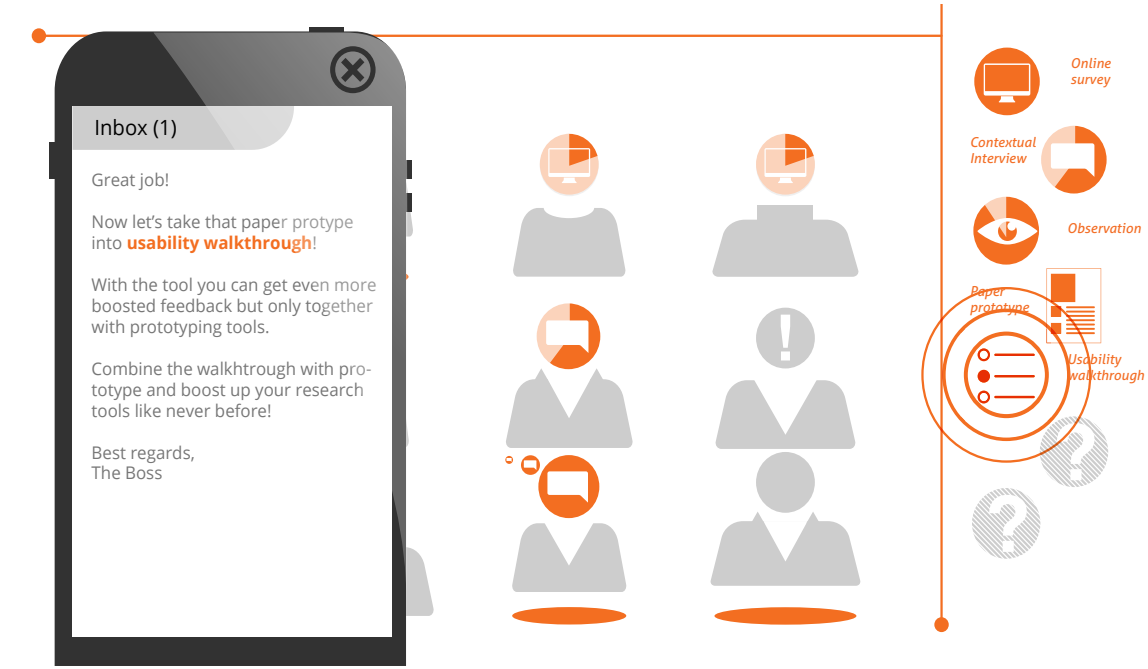


Figure 39. Introduction of usability walkthrough UX-tool.

The player gets more freedom and responsibility on the sixth level of the game. Therefore in the storytelling the boss gives a raise to the player. The boss also gives more responsibility for the player. This aims to motivate the player in a fun way because of the imaginary situation.

The rapid (interactive) prototyping in the game works together with research tools such as the paper prototyping tool and cannot be used independently. In real life rapid prototyping usually means testing the design through a prototype that is interactive in it is behavior and in most cases close to the final product. In order to get investments for technical implementing, rapid prototyping can also be used as a proof of a concept for stakeholders. Therefore the rapid prototyping is the second last UX-tool in the game. (Linja's Designers 2014.)

The last but not least UX-tool on level seven is usability testing. This level is the last one in the game and therefore presents a so-called bossfight, which means harder resistance. Usability testing combined with the interactive prototyping and observation is the most powerful way to get feedback in the game. The feedback need has risen during the game along with the unlocking of better UX-tools. The progression works the same way in real life UX-design processes. Therefore the first unlocked UX-tools, such as the online survey, give less feedback compared to the last ones, such as the usability testing combined with observation. The progression aims to educate the player to understand the timing of the UX-tools in real life processes.

From my personal experience I've noticed that usability testing with interactive prototyping is mostly used with almost finished designs or with existing products to find out focus points for improvement. Therefore these tools are unlocked at the end of the game.

Figure 40. Introduction of rapid (interactive) prototype UX-tool.

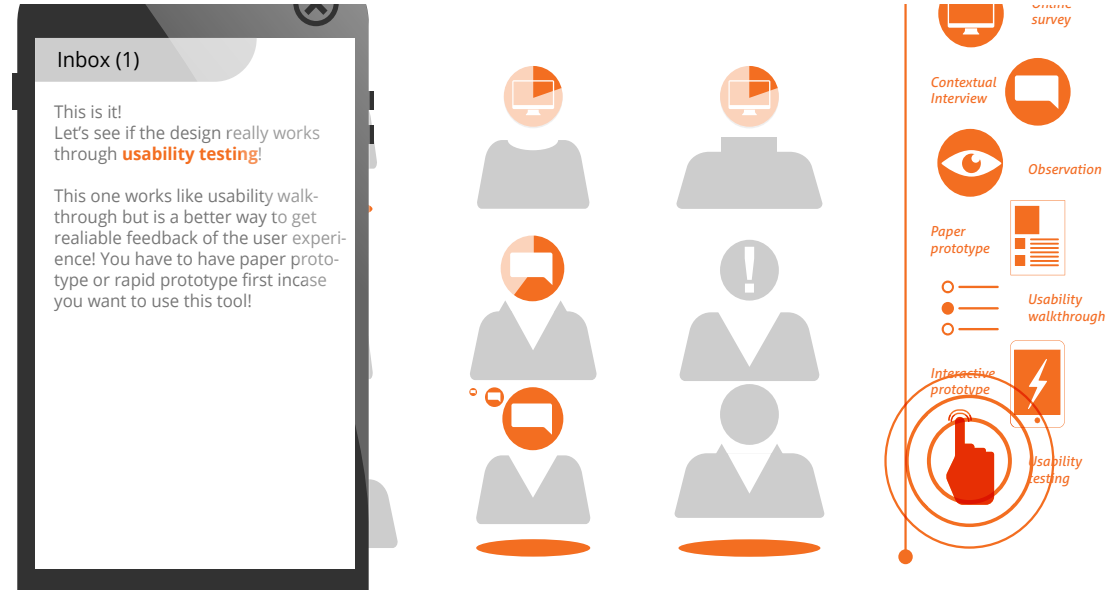


Figure 41. Introduction of usability testing UX-tool.

11.3 Playing

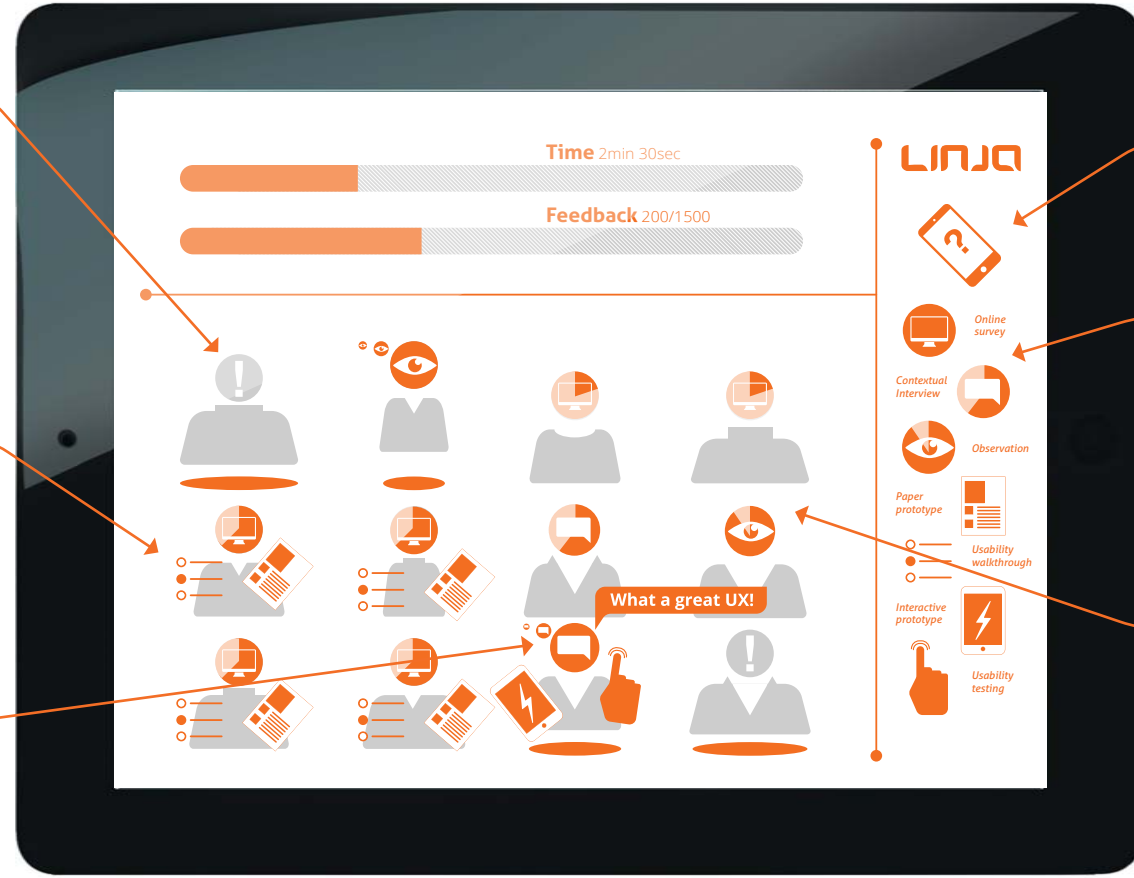
In their colors and simplicity the icons for the UX-tools are based on Linja's visual identity. The icons have terms written next to them in order to educate the player about terminology. The design driver for creating the icons for the UX-tools was to relate the similar tools to each other but to still make them clearly distinguishable from each other. These features will be developed in the possible further implementation of the concept.

The usability of the game will be developed in the process once the interactive prototype will be created. For now the usability development was based on the developer guidelines of Apple. The smallest icons in the game are far bigger (116px x 116px) than the minimum size of the icons in the developer guidelines (58px x 58px).

Users without an action asking for attention

The player has used usability walkthrough together with online survey and paper prototype.

A player gets instantly positive feedback from the characters of the game once the process is finished and the player gets the points



The player can get back to the tutorial by tapping the phone icon.

The more the UX-tools takes peparing in real life the more it takes time to load the tool in the bar after one usage.

The more the UX-tool takes resources to implement per user in real life the more it takes time to load the process in the users after tapping. The aim is to gather the needed feedback in a limited time scale to complete the level and to unclock another UX-tool.

The pie like graphic indicates the process progress. The white dimmed part of the pie indicates the remaining progress both in the heads of the users and also in the UX-tools.

Figure 42. General playing view.

11.4 The End Scene

At the end of the game the player gets a chance to study the unlocked UX-tools, learn about gamification or browse Linja's website and portfolio.

Earlier in the process the aim was to include the references in the story of the game but updating the references would have required a lot of work from Linja's staff. I also faced some difficulties in finding proper references for the game because almost all of the projects Linja has participated in have been in collaboration with several studios. Therefore the projects behind the references cannot be presented as Linja's expertise.

The clients are also very strict about their public image and as a design studio Linja must respect its clients. Therefore it was safer to keep out the references from the game context. Once the references are not connected to the storytelling, there is a lot more freedom for creating the story and more possibilities to focus on the educational features of the game.

The UX-tools in the game can be seen as badges. After playing the game the player will see all the unlocked UX-tools as a reward. The aim of rewarding is to enhance the positive effect on the users.

As mentioned previosly in the objectives Linja believes strongly in gamification. Therefore the last screen of the game includes a link to an explanation of how the application uses gamification and how similar methods are used in other implementations.

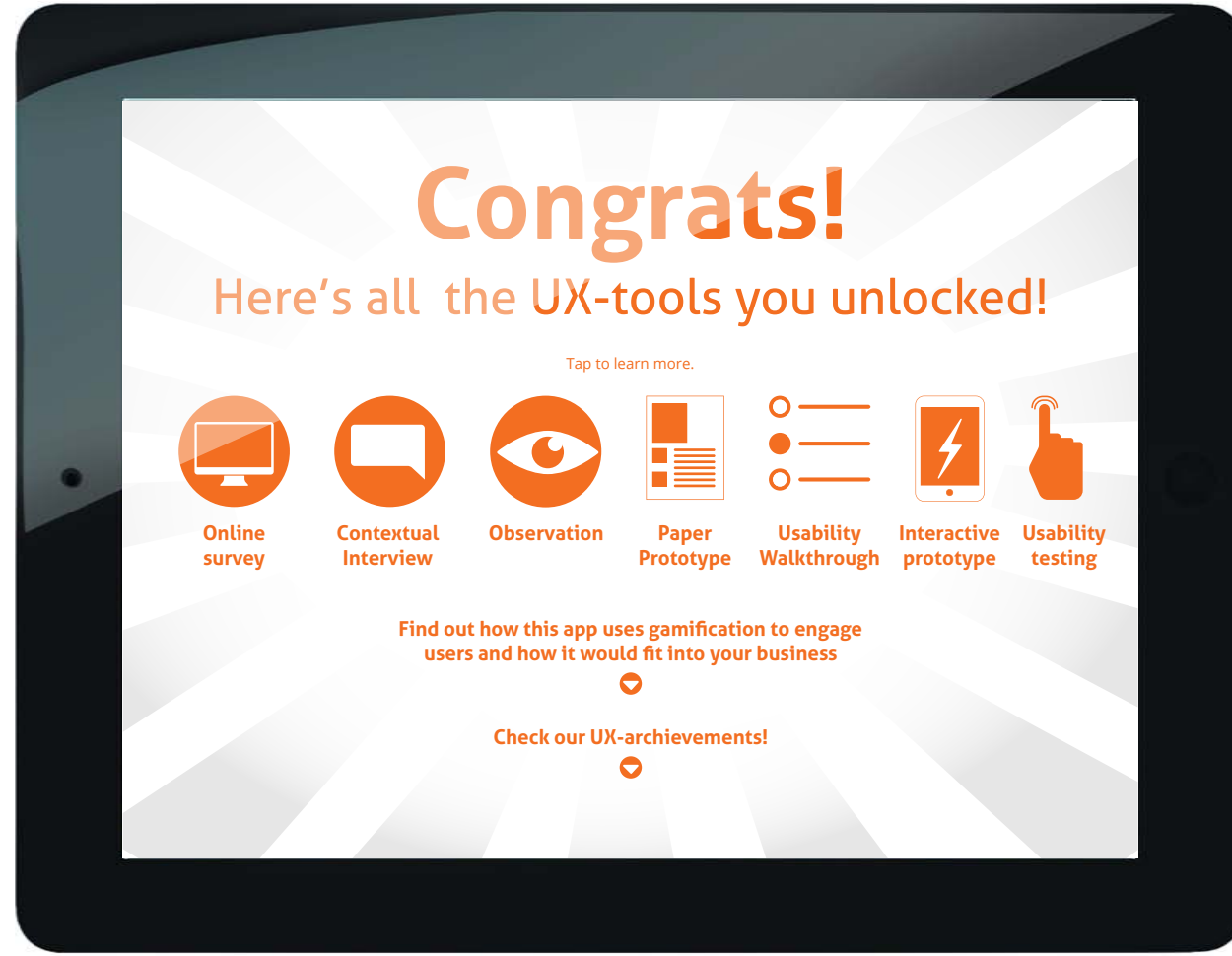


Figure 43. End screen.

12 Further Development

The next step would be usability testing with paper and interactive prototypes.

The look and feel can be tested with paper prototypes to see if the game is surprising enough for the activity group, clear enough for the orientating group and beautiful enough for the relaxing group.

Storytelling can also be tested with a paper prototype to see if it is quick enough for the activity users and fun enough for the relaxing group. The orientating group would possibly be most interested in the text content because they were into studying the subject.

The acitivity group was the most interested in gaming. Therefore it would be necessary to test the resistance levels on the activity group. On the other hand it is necessary to test that the resistance wouldn't be too hard for the relaxing group.

In the concept the story telling is in a chunky text form, which may spoil the experience for some users. It would be great if these features could be explained with animations. The story telling animations would be a priority for the relaxation group because the group was into fantasy and wonder according to XEO's PX map.

Interactive feedback animations are the base of the playing experience. Therefore the animations must be tested with all the groups to ensure the usability as part of the user experience.

As the author of this thesis I believe in the concept though it hasn't been tested. None of the features in question are rocket science. Therefore possible problems can undoubtedly be solved through an iterative usability testing based developing process.

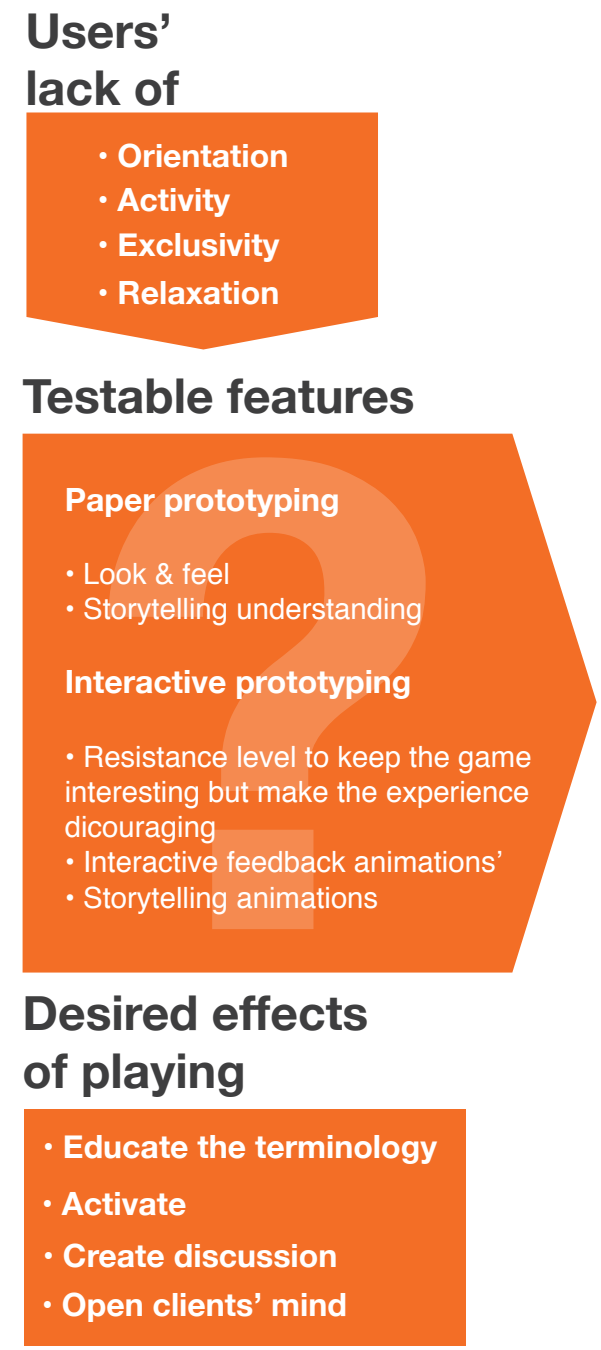


Figure 44. Visualization of user needs, possible problematics features of the game and desired effects of playing.

13 Discussion

The assignment by Linja Design Ltd. was to design an application, which improves meetings and the client experience at Linjacafé. The application would be used by clients during the waiting before meetings. In the beginning of the process it was agreed that the final stage of this thesis project would be left undecided. By myself I set the objective for the final stage to be an interactive prototype. In the process I already started to create the prototype after the first mock-ups but found there to be too many open questions in the concept. Because of that there was a big risk of wasting resources for nothing and I decided to focus on developing the concept on a theoretical level. Afterwards I'm happy with the decision because I discovered many critical problems in later development.

The biggest challenges in the client experience were found at the beginning of the project by discussion with Linja's staff in several meetings. Observing as a research method might have gained more reliable information but it was left out from the project scope due to the lack of client meetings. Departing from the original project plan observation was substituted with staff interviews.

Overall in the project I learned a lot more than I expected. The biggest surprise for me was the amount of work that was needed to turn the game-like elements into designed features. All in all I gained a lot of professional insight into gamification.

The needs in the target group had high variability. Therefore I decided to approach the assignment through gamification. Gamification helps to meet different user needs with different features. As the games are a rich media, the design work also needs a lot of effort. The more there are features the more features need to be designed. Therefore after this design process I think more critically about applying such mechanics into applications. For this thesis I had to study all the basics of gamifying, which slowed down the design process. However this was very beneficial for myself and for my professional growth.

At the beginning I wanted to go through basic user study methods to gain a proper study base for further design work. In the user study I had problems in getting the right people to take part in the user study. People in high positions, such as CEOs', are very strict about their public image and the interviews had to be done totally anonymously. It was still beneficial to gain their trust and even a small amount of feedback. The research methods are well known and therefore the results should be reliable. Because the study was not scientific the reliability of the study results must be proven through usability testing during possible further development

It was also difficult to find proper reference materials and previous studies because gamification is a very new field of design and also can refer to different things during different times. Luckily Pennsylvania University had started a free online video course about gamification, which helped me familiarize myself with the subject at the beginning of the process. The biggest and the most inspiring research I found was a publication by Werbach and Hunter called For the Win, which I recommend for everyone who is interested in taking their first steps in gamification.

The openness of the project objectives created a lot of challenges in the decision making during the process. At the beginning a lot of resources had to be used to gain proper insight into the current situation of application development, such applications and existing implementations. As a designer I'm planning to focus on interaction design and therefore the using of resources was valuable for my professional growth.

The collaboration with Linja Design was promising at the beginning but as the project didn't have financial resources from Linja's side the meetings and collaboration decreased towards the end of the process. Therefore I had to develop the project independently. The effects of the lack of collaboration can only be guessed. During the thesis process I also started working as a UX-designer in the company in question. This made the collaboration on my thesis even harder as I now had other work tasks in the office. I still do not want to complain about the situation: it was still beneficial to have an assigned project scope from a company instead of an independent made-up project scope. The project also strengthened my relation to the company and to the whole UX-industry as I continue to work for the company in the future.

Further development of this concept in collaboration with Linja design is still undecided. I'm happy that in the process I managed to create a new aspect for approaching the lack of orientation in a UX-design studio. The concept is unique and it has gained a lot of interest from my colleagues and people from other professional fields, such as graphic design and web developing, which are needed in the further development. I hoped to take the project further as part of this thesis but decided to dive deeper into more focused areas of the concept in order to gain more reliability and professional value for this thesis.

From the further development of this concept I'm mostly waiting to see whether the features in the concept work and which features can be found valuable for the users. These features would be tested with rapid prototypes, which would greatly support my personal learning from this thesis. I'm also interested in seeing if the concept will have financial possibilities.

References

Beyer & Holtzblatt 1997. Contextual Design. San Diego: Academic Press

Burke, Brian 2014. Gamification: Engagement Strategies for Business and IT. Gartner. http://www.gartner.com/technology/research/gamification/ 25.3.2014

Chou, Yukai 25.4.2013. Top 10 Education Gamification Examples that will Change our Future. http://www.yukaichou.com/gamification-examples/top-10-education-gamification-examples/#.U2UpNK2SzWS 3.5.2014

Cooper, Alan 24.2.2004. Inmates Are Running the Asylum, The: Why High-Tech Products
Drive Us Crazy and How to Restore the Sanity.(Publishin location not available):Sams Publishing.

Cortizo, José Carlos 12.1.2014. Who Is Currently Applying Gamification?. Brainsins Blog. http://www.brainsins.com/en/blog/who-is-currently-applying-gamification/1635 25.3.2014

Daltonmaag 2010. Fonts. Aller. https://www.daltonmaag.com/buyonline/fonts/aller 3.4.2014

Dictionary 2014. Concepting. http://dictionary.reference.com/browse/concepting 5.5.2014

Dignan Aaron 2.5.2011. Why Future Work is Play. Vimeo. http://vimeo.com/23167866 25.3.2014.

Edward Mayer, Roxana Moreno 2002. Issue 1. Volume 14. Educational Psychology Review. Animation as an Aid to Multimedia Learning. http://link.springer.com/article/10.1023/A:1013184611077#page-1 7.4.2014

Foursquare 2014. Author's personal badges. https://foursquare.com/ 25.3.2014

Gartner 19.1.2013. Gartner's 2013 Hype Cycle for Emerging Technologies Maps Out Evolving Relationship Between Humans and Machines. Gartner Newsroom. http://www.gartner.com/newsroom/id/2575515 25.3.2014

Halme, Noreila, Perheentupa 2013. Next Level UX Design: Gamification. Youtube. https://www.youtube.com/watch?v=_Y4x7VjSYy4 21.3.2014.

Halme, Steffen 2013. Linja Design Website. Blog. http://www.linja.com/blog/inspirational-article-2014-sound-levitation/ 3.4.2014

Hanington, Bruce M. 26.3.2010. Relevant and rigorous: Human-centered research and design education. Design Issues. Massachusetts: Massachusetts Institute of Technology

Johansen & Christ 13.3.2012. Persona Research and Design - Santa Barbara UX Meetup. Vimeo. http://vimeo.com/38516269 1.4.2014

LevelUp 2014. What is LevelUp. Businesses. https://www.thelevelup.com/what-is-levelup. 26.3.2014

Linja Design 2013a. http://www.linja.com/company/ 3.5.2014

Linja Design Ltd. 2014. Services. Linja Design Website. http://www.linja.com/services/ 28.3.2014

Linja Design 2013b. http://www.linja.com/ 5.5.2014

Mailchimp 2014. The Noun Project. Happy.

Manstead, Frijda & Fisher 2004. Feelings and Emotions. Cambridge: University of Cabridge

Morgan, Stephanie 16.12.2011. Gamification Sucks. Creative Mornings, Vimeo. http://vimeo.com/35394885 2.4.2013

Neil, Malley 22.4.2014. Rethinking Mobile Tutorials: Which Patterns Really Work? http://www.smashingmagazine.com/2014/04/22/rethinking-mobile-tutorials-which-patterns-really-work/ 7.5.2014

Nobel Media 2013. Nobel Prize. Bloody Typing Game. http://www.nobelprize.org/educational/medicine/bloodtypinggame/game/index.html 2.4.2014

Noreila, Vikki 2013. Linja Design Website. http://www.linja.com/ 3.4.2014

Oxford 2014. Oxford Dictionaries http://www.oxforddictionaries.com/us/definition/american_english/mock-up 28.4.2014

O. Galitz, Wilbert 2007. The Essential Guide to User Interface Design. Indianapolis: Wiley Publishing, Inc.

Popcap 2014. Electric Arts. Plants Vs. Zombies. http://www.popcap.com/plants-vs-zombies-1 2.4.2014

Qayyum, Ali 2014. 40 Online Powerful Website Building Tools To Create Your Free Site. http://smashinghub.com/40-online-powerful-and-easy-website-building-tools-to-create-your-free-site.htm. 9.5.2014

Rogers, Sharp, Preece 2011. Interaction Design: Beyond Human - Computer Interaction. Chichester: John Wiley & Sons Ltd.

Teixeira, Braga & Oyama 2014 Hints From the Lazy Bear. http://uxdesign.cc/ux-methods-deliverables/ 28.4.2014

Van Dicjk, Peter 2003. Information Architecture for Designers. Mies: Rotovision SA

Vogel, Jacob, Mun May Tee, Mailchimp, Housin Aziz. The Noun Project. Happy http://thenounproject.com/ 10.4.2014

Walter, Aaron 2011. Design for Emotion. New York: A Book Apart

Werbach & Hunter 2012. For the Win. Philadelphia: Wharton

XEODesign 2004. Four Keys to Fun. Why We Play Games. http://xeodesign.com/whyweplaygames.html 2.4.2014

Interviews

Halme, Steffen 2014a. Chief Competence Officer. Linja Design. Interview date: 11.12.2013

Halme, Steffen 2014b. Chief Competence Officer. Linja Design. Interview date: 12.3.2013

Linja's Designers. 2014. Linja Design Ltd. Interview date: 4.4.2014

Noreila, Vikki 2014a. CEO. Linja Design. Interview date: March 2014

Perheentupa, Eljas 2014. Creative Director. Linja Design. Interview date: March 2014

Target Group Interviews 2014. Interview date: 21.2.2014