Learning Diary

Ariel Malada - 150914855

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Intro

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My background in this field is pretty limited, beside the course that i took during bachelor degree, and this human technology interaction program that i currently took in Tampere University. Other things probably that need to be aware of that I am a Frontend Developer, which affect my view here will biased towards a software development instead a product.

Prior to this, I've been involved in several projects, includes doing usability testing, and develops some prototypes to improve UX for several projects. Participating this course pretty much align with the goals of the course objectives. I also hope that after finishing this course, I can understand more developing the right experience for a product. I really hope that I can gain more knowledge about developing the right experience for the user that will enable the user to use the application in full efficiently. as well as know how to evaluate the experience of the product.

Challenges most likely is the project that require to develop beyond the application which interesting but also looks challenging.

Using UX models

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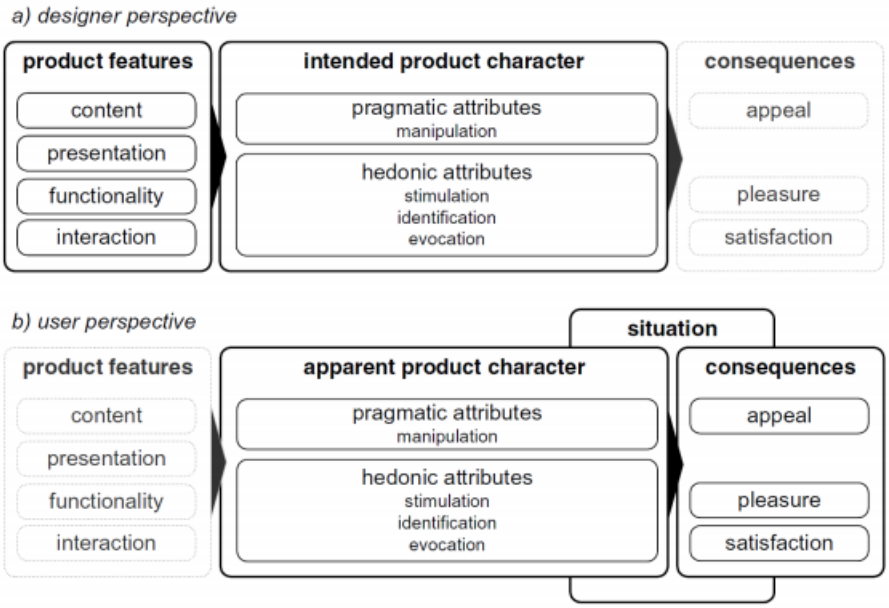
Hassenzahl Model



User Experience

From ISO Definition: "a person’s perceptions and responses that result from the use or anticipated use of a product, system or service." However, the terms of user experience itself is developed from time to time. Then, when we look at the Hassenzahl model

(2018), I understand more that it's about how people feel and act when they use a product. The model shows us two ways to see things: designer perspective, the user perspective and UX itself is come from the consequences of these product character attributes.

Designer Perspective

When designing a product, the designer will design features, which includes (content, presentation, functionality, interaction) to give the **intended product character**

Product Features

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Then we come to actual design of the product, system, or service itself plays a crucial role. This includes the usability, functionality, performance, aesthetics, and overall accessibility of the system. A good designed system can affect the UX in a positive way. On the other hand, bugs, error, usability issues, can cause user frustrated with the system and having a negative experience towards the product

User Perspective

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When using the designed product that the designer developed, they will perceive things based on the features *(they perceive it not see the features itself)* , which then those perception will create the **apparent product character** from the user itself.

Those product characters will create consequences (the appeal, emotional consequences (pleasure, satisfaction)). These consequences however, need to consider the situation (context)

Context

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Context can affect the how the user perceive things of the product, this can be include social setting (like the interaction and norms), meaningfulness (realizing how important it is), or external environment (where lighting can be variable of the experience)

Product Characters

Photo by Kenny Eliason on Unsplash

We need to understand that In the Hassenzahl's model of UX, the product character can be different from different perspective. The designer will create the features to convey the intended product character. However, user will perceive the product character based on how fulfilling and the psychological pleasure of the product. *Pragmatic and hedonice*

That's why we can only *design for UX* not *designing the UX*

Applying the UX Models

In this UXDE course, I'm associated with UX450 group. With this group, we started the group project with choosing the topic "Sustainable Living". We put ourselves where we are the user for this particular topic. Then, we agreed that the waste management is where we feel frustrated the most and this particular topic can contribute a lot in promoting sustainable practice.

Choosing the features for the product character

Photo by FETHI BOUHAOUCHINE on Unsplash

Deciding features is not easy, the UX models allow us to make sure that the features is meet the pragmatic and hedonic quality we would like to achieve. There were some criteria or features that we would like to have which built from the knowledge that we get from literature review and user study:

- learning hub for waste management
- application that user can use for reminding waste management and sharing knowledge in the application
- incentivizing the user for using the product
  Which we try to design from the intended product character
- easy to use (Relaxation, in PLEX)
- allow everyone can participate and encourage each other (Fellowship, in PLEX)
- encourage waste management and knowledge (Nurture, in PLEX)
  As these will try to fullfill the *pragmatic quality* for being useful and easy to control as well as the *hedonic quality* being exciting, social recognition for sharing knowledge, gain knowledge for using the product. These all to keep promotes the user to use the product and happy to use the product

UX Models makes understanding UX of our product much easier

Photo by Ignacio Amenábar on Unsplash

It's much easier to understand with the UX models, which we use Hassenzahl's model, how is our product quality from their experience using the product. We can measure how far the quality of the experience achieved and useful our product is, compared to just achieve by designing the UX feel *(easy to use, user friendly, etc)*. These UX models itself developed overtime and have different model from different study. The early definition was still not defined what the UX actually is, until around 2006-2018 when we have CUE model in 2007 and Hassenzahl's model in 2006 and 2018. They both describe that UX comes start from the product features, that user perceived how pragmatic and hedonic quality they feel and comes with it's consequences.

Experience Driven ~~Development~~ Design

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Experience driven design is an iterative development process for design for experience, which kinda remind me software agile development process.

EDD start by understanding the context, which we can do by doing the literature review and user study. Then continue by define what is the UX goals of the product. Then, we create features of the product that can evoke the intended experience. Finally, we measure the intended experience achieved from by evaluating the experience that user perceived from using the product.

However, it's not end there, the process keeps continue by start the process again in the refining the UX goals process by optimizing it from the evaluation that we conducted. This continuation of process will keep the product improving to achieve the intended experience that the design want the user perceived that achieve the pragmatic and hedonic quality that we want.

Comparing EDD

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The EDD itself kind of falls in between of Agile process software development, which pretty much similar what Agile UX or Lean UX trying to achieve. By doing iterative process, responding to feedback, and refining the product as early as possible to create a mature product after several or lot of iteration. However, Lean UX focuses more into the speed and deliveries, EDD focuses more just for the UX and achieving the experience goals and Agile UX which lean more integrating UX for agile development cycle.

Applying EDD

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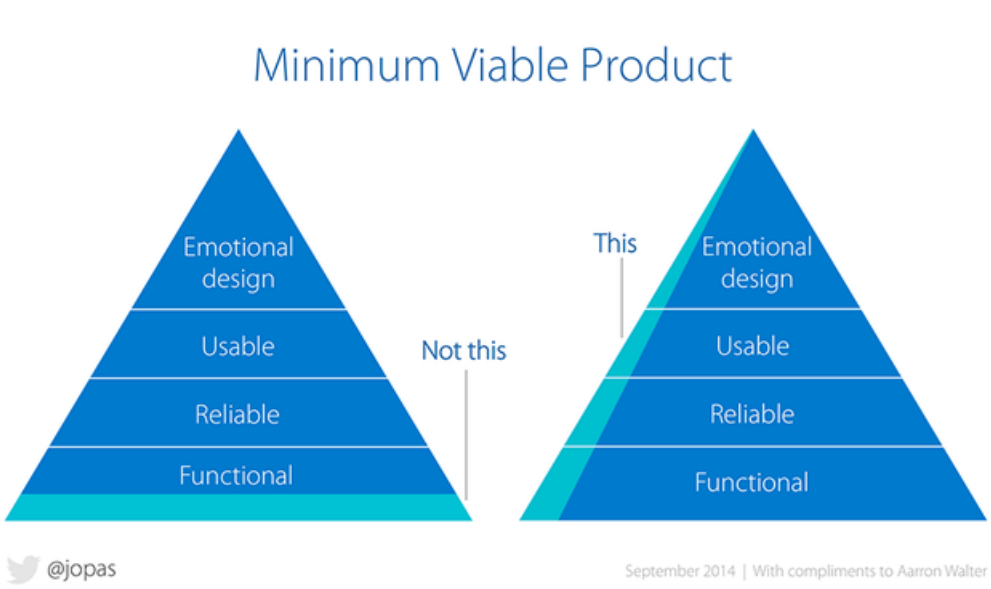
The beginning

In my group work for this course, we start our EDD process by doing literature review. These literature review is extremely useful to get us more familiar with the subject and understand more about the context.
Some notes of the findings:

- **Recognizing and addressing what users want from their kitchens, and how it fits into their lifestyle**
- **like addressing waste at the source, enhancing institutional capacities, and promoting awareness for effective solid waste management**
- **Motivators for thorough sorting include more bins within apartments and disposal sites, as well as easier waste sorting and storage methods**
  Also, conducting these literature review help us to build questions that we need to study further the user which result of these findings:
- **Many students lack the knowledge to separate their trash correctly**
- **Some students shared some sustainable practices that they have implemented to simplify their trash sorting, like buying vegetables without plastic packaging.**
- **Many students shared the problem of not having enough space to sort all the differing kinds of trash. This is specially problematic for some specific types of waste like bio**
  Before starting the user study, we actually already start to put the initial tentative UX goals for leading us, we are using PLEX cards for helping us what kind of goals that we should choose for our product. The goals are:
- Nurture, to encourage people for practicing sustainable practice such as waste management
- Relaxation, practicing these sustainable practice should be easy and without frustration
- Fellowship, sense of belonging and collective efforts towards sustainable practice will encourage more to practice it
  These goals remains the same as during the user study these UX goals still fit to use to continue prototyping the product.

Prototyping and evaluating



@jopas at X https://x.com/jopas/status/1553010886609592332?s=20

Understanding these method, we try to create the MVP product, we planned to use 3D model, then we realize it's probably more expensive to implement it especially for very early stage of designing a product, which required 3D design, knowledge how print those and real money just to print it. We opted to use a shoe box instead that we recycle from old shoe box, far cheaper and done in around 2-3 hours with one man power.

We interviewed 5 peoples to gain qualitative data as well as gathering the quantitative evaluation with AttrakDiff and UEQ. We gained a very insightful data from this evaluation process which confirming that the product we develop is leaning 2 of our goals that us as a designer trying to achieve. 1 of the goals (the fellowship goal) however, required longer usage which mean need more time for evaluating the product which we don't have during our development. More mature product from further development will likely produce better results from our last evaluation as well as confirming the product quality with each evaluation from each iteration of EDD.

The not so fun part of EDD

Photo by Sarah Kilian on Unsplash

The EDD itself is very useful for creating the product, focusing creating an early product by focusing the topic and try to design a product for the targeted experience. Then, get early feedback with early product to refining the product.

That was all the good thing indeed, then what's the issue? When you work alone on the product nothing else needed, it's all good. However, when you have a group of people to work on it together, things change dramatically.

We need a make a team from the group, and when it's not communicated from the beginning, it's not fun. As one of the designer in the team, I always feel excited and committed for creating a product. but who knows from otherside of our other team member.

When working with a team, EDD itself must be integrated into a development practice that integrate with a team, like collaborative design or agile. Agile itself for example for a software development, is focused integrate with a team for developing a software.

EDD is definitely suitable for almost of any project, software development, robotic, or AI product. Probably, the most usable goals for any of the project is relaxation, make the product as easy as possible to integrate within daily life.

Evaluating UX

Choosing the right method

Photo by Nathalia Segato on Unsplash

Choosing the right one, can be difficult, and there are several classification situation how to choose it:

- **Study Type (Place/Setting)**
  which depend on the setting, as lab setting or natural environment can impact the UX using the product
- **Development Phase**
  is it early or later stage? early stage might required qualitative feedback while later stage can utilize more quantitative measurement to validate the user experience
- **Timeframe of UX**
  do we have enough time to the evaluation UX with certain method?
- **Type of Participants**
  is it students? casual user? or maybe for an expert?
- **Quantitative/Qualitative**
  In UX research, we most of the time learned that evaluating the UX mostly use the qualitative approach. Which are easy to imply from the feedback. On the other hand, quantitative for UX research is also exist. Which very useful for comparing different design and the measuring the usability of the product.

Measuring the Experience

Photo by Linus Mimietz on Unsplash

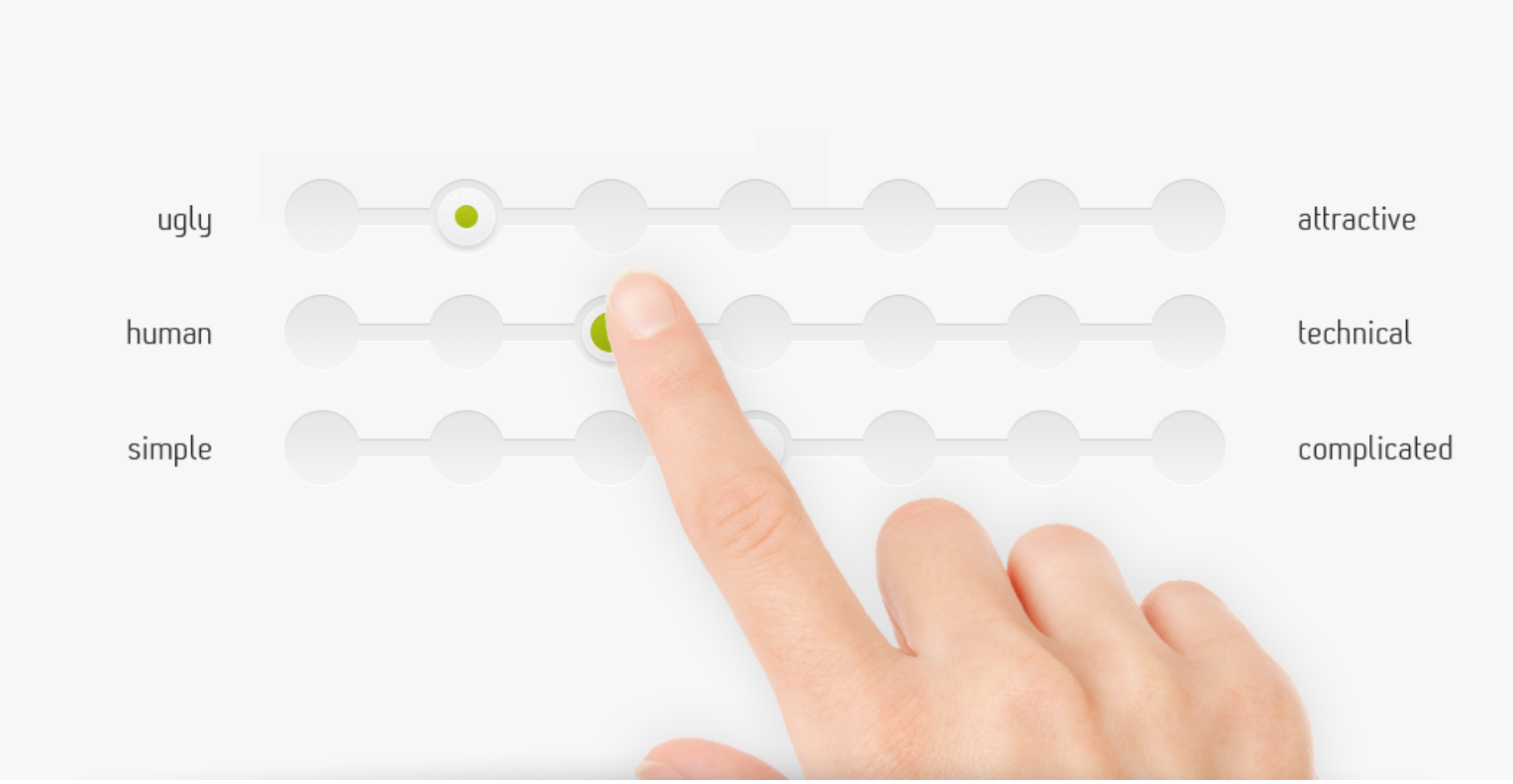
When it comes to measuring the UX, we can measure them through product perception and attitudes, and emotions.

Measure through perception and attitudes

Perception are build from the perception of the user from using the product. While the attitudes, is how they act towards the product they are using.

To measure those perception and attitudes, the method are varies:

AttrakDiff



Attrakdiff is measuring the pragmatic and hedonic quality of the product based on Hassenzahl's model of UX and using semantic differential for the scale Type. This method can be used for lot types of evaluation. From single evaluation, comparison, or over time usage.

User experience questionnaire (UEQ)

Similar to AttrakDiff, they both measure attractiveness, pragmatic and hedonic quality of the product.

Measure through emotions

Photo by Tengyart on Unsplash

Emotion can be measured using automatic and observational methods:

1. *Automatic Methods*: This involves using technology to recognize emotions based on facial expressions, gestures, or postures. For example, AI emotion detection.
2. *Observational Methods*: observing the user using a coding system such as the Facial Action Coding System (FACS) to recognize and classify the observed behavior

Comparing two of them

When comparing the two methods, measuring emotions tends to focus on the of a product or service, often captured in the moment and sometimes tied to specific interactions. Methods such as observing changes in facial expressions or physiological responses can provide immediate, reactions to user experience.

On the other hand, measuring perceptions and attitudes is more focusing on how users feel their experiences and attitude towards the product when they using it. This kind of measures more tied to the engagement with a product or service from the pragmatic and hedonic quality of it.

Evaluating UX IRL

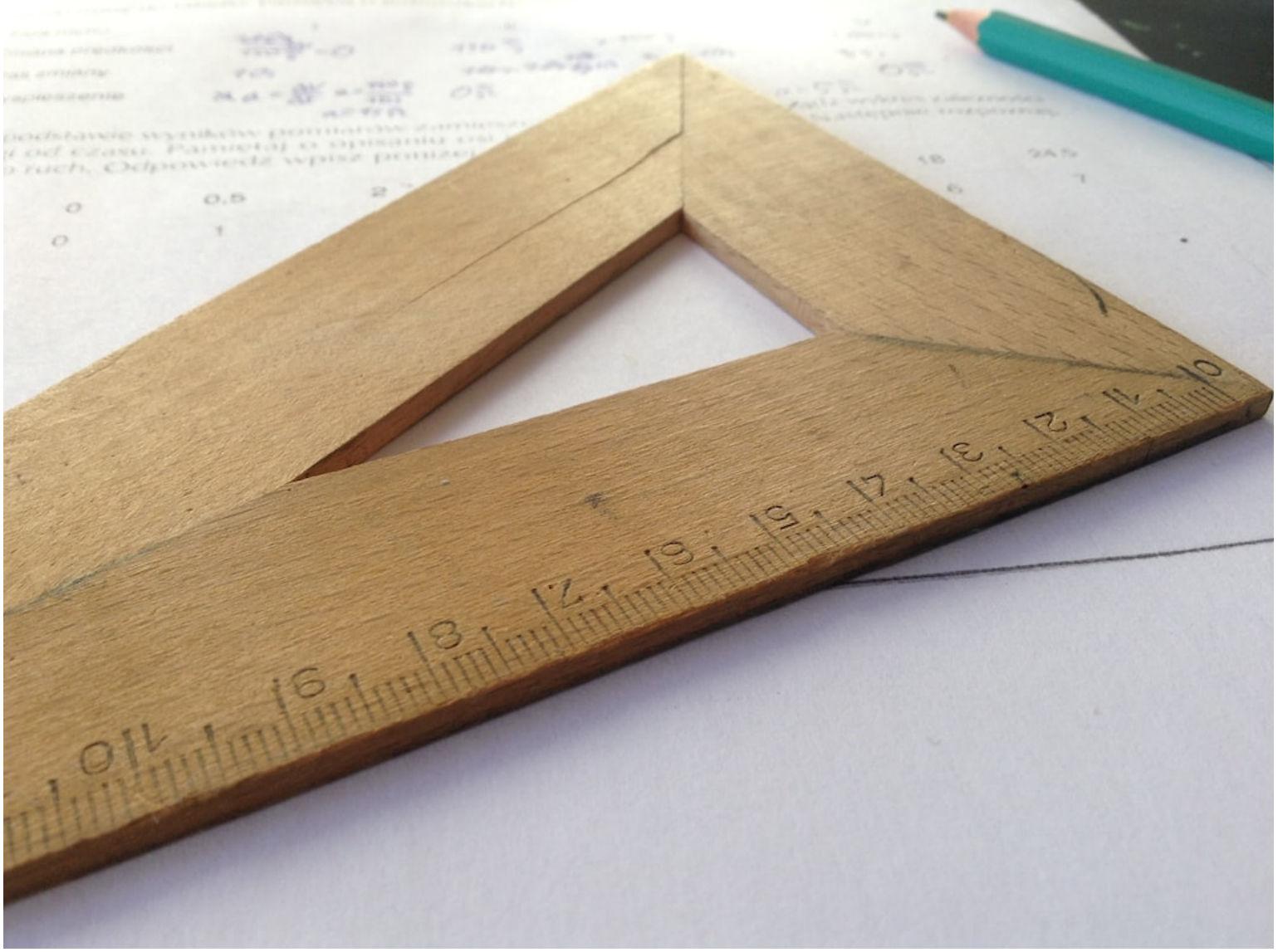


Photo by Dawid Małecki on Unsplash

We done using quantitative method and qualitative method with experimental studies, that everyone just given the product directly without giving the order to the user beside presenting the product, what inside and how to use it. But asked the user to thinking out loud when using the product

Choosing the method

In our team, choosing the measurement is difficult for the quantitative part, we don't really have much experience neither have the right idea what method to use to measure experience of our product.

We instead choosing UEQ method just for the Application and AttrakDiff method just for the physical product to measure our product based on other project. They both selected randomly as we guess can describe much of the product quality that we build.

Realization

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The realization that our team not choosing the most optimal way for evaluating came when we evaluated the results. Our team should have evaluate the users after they use both of the application the physical product, not each one of them. This make the evaluating a bit difficult and confusing.

Then our team also just realized that our evaluation method are both evaluating through perception and attitude. This led our evaluation feel not complete as our team evaluation not include the evaluation through the user emotion. Further optimization of choosing evaluation method for our team can be done by measuring the emotion instead both evaluating through perception and attitude to get the complete picture of the understanding the user experience.

Although, evaluating through the results, the evaluation went well and the product is well received generally. We also gained lot of feedback that we gathered from evaluating the user with the thinking out loud process

Reflection

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Reflecting through the group project, I realized planning these evaluation method is really important to get the optimal result during the evaluation. I probably would spend more time for planning these in the future, which skill need to be developed as choosing the right one is still require deeper understanding for each method and situation classification for each method.

Wrapping things up

Photo by Audi Nissen on Unsplash

This course is a very interesting one indeed, focusing just developing a product entirely focused on the experience.

why?

UX models pretty much my favorite as it's quite insightful how we as a designer often think designing experience is pretty straightforward while developing the term of user experience itself still developing until now due to complexity of the experience. Even though before this course i always noticed that as a designer sometimes try to design the experience however, user may perceived different things than what designer intended. There are questions inside my head wondering `why` it exist, answered here. `context` , `emotion` , `aesthestic` and other things are pretty much affecting how user sometimes perceived different things.

Designer Ego

Photo by Kyle Glenn on Unsplash

Learning EDD in the other hand, is pretty similar to other existed *driven* framework although EDD just purely develop a product from the UX goals. Interesting notes however, designer sometimes mistaken designing experience instead of *designing for experience* which that term have completely different meaning. This also kinda remind me 2 years ago when I notice the term of `designer ego`, when I as a developer, struggle to implement a complex design just trying to achieve the best user interface and experience because of what the designer want without much explanation. Here on the other hand, achieving the right and optimal UX is pretty much iterative process and implement basic things is okay, as long as it's trying to achieve the UX goals and improving it after that.

last, not the least

Photo by Tetiana SHYSHKINA on Unsplash

Completing this course is somehow make me crave to learn more details inside and outside the course content. honestly, there are some parts of the course that i missed and not really explore much in the beginning. Reviewing them again however, i noticed some of the course content such as CUBI models, PLUX model probably have more feasibility combining them with business idea and software development. I'm pretty happy that what brings me to Finland and wanting to learn the complexity of user experience have answered here mostly. Reflecting all of this putting me in a spot to be more humble as a designer or a developer in terms of developing a product and how we can achieve to bring the right product.

Following this course from the beginning and looking of how other participants doing is pretty refreshing. I felt like that because there were some other group using their creativity and getting to know how the other team approach to give their solution from topic they have chosen is interesting. I pretty grateful to have the feedback from the other pointing out what our team missing and how we can elaborate better as the report itself not only for ourselves, but also for other to read too.

The course itself is very flexible, no requirement for class or exercises besides completing the assignment and group project. Though this flexibility also become a **weakness** of this course. Commitment to learn the course and between team members are more fragile and students have to put more effort to persuade others to work together or even persuade themselves to keep learning. I was in the other course (COMP.SE.200) the course itself is very packed but still engaging to keep learning. There are some minimum requirement and a very small assignment every week which pretty much allowed students to put their questions in advance to be answered in the class. Guest lecturer can be a good addition too as bringing experts may provide more idea applying the course in more business context.

Thanks for reading, have a good day
~ Ariel

blooming primrose in the autumn