# Redesigning the user interface of the 'Ervaringskoffer' to improve the user experience.

Public summary

Julia Scheeper
Industrial Design Engineering
University of Twente, the Netherlands

## **Background**

A professorship of Client perspective in Support and Care, at the Windesheim University of applied sciences in Almere, is focussing its research on people with acquired brain injury (ABI) and how they participate in society. Among others, a group of four researchers is working on the development of the *Experience Suitcase* (ES).

In the Netherlands, around 650.000 people have an ABI (Hersenstichting, 2020; ZonMw, n.d.). An ABI is an injury, damage or deviation to the brain that is caused after birth (Hersenletsel, 2018; Hersenstichting, 2020; Hersenletsel-uitleg, n.d.). After rehabilitation, people with an ABI experience barriers to actively participate in society, due to their physical, cognitive, and/or psychological limitations. These barriers are, among others, caused by people without an ABI, since they have a "prejudicial attitude" towards people with an ABI (Karlovits & McColl, 1999, as mentioned in Paterson & Stewart, 2002). However, participation in society helps people with an ABI to "acquire skills and competencies, achieve physical and mental health and develop a sense of meaning and purpose in life" (van Tol et al., 2011, p. 1280).

The existing ES, as shown in Figures 1 to 4, is in the form of a clickable pdf. It is developed to support conversations between people with and without ABI and to let the person without ABI experience what it feels like to have an ABI. When awareness and understanding are created, this will eventually lead to a better position of the person with ABI to optimally participate in society. In order for a person without ABI to understand an ABI, absorb knowledge, and talk about an ABI, it is important that people without an ABI feel the need for it. This especially happens when an ABI is experienced. The experiencing is provided in three ways: 1) Experiencing by knowledge, 2) Experiencing by storytelling, and 3) Experiencing by doing. The ES is created in corporation with experts by experience.



Figure 1. Front page existing ES



Figure 2. Explanation page existing ES



Figure 3. Main menu existing ES



Figure 4. General information page in domain 'labor' in the existing ES.

## Objective

The objective of this assignment is to redesign the user interface (UI) of the existing 'Ervaringskoffer' to improve the user experience (UX).

## Approach

As an approach to fulfil this objective, research on the terms ABI, UI, and UX is executed. For the term ABI, the focus is finding out the background of ABI, its causes and effects, and what effects it has on the participation in society of people with an ABI. Next to that, the terms UI and UX are explained. Furthermore, the guidelines are stated that can improve the UI and UX of a product. In interviews with the target group, the existing ES is reviewed with regard to these guidelines.

The ideation phase is the next step, in which different ideas are created on the different elements presented on a website, the way of structuring information, on the layout, and on a logo. Ideas then are combined into concepts. Again, interviews with people with and without ABI are executed to find the tops and points of improvement of the concept ideas. One concept is finally worked out into the final design.

#### Results & limitation

The final prototype of the ES is created in Adobe XD. The major adaptations made in comparison to the existing ES are the following:

- The format of the ES was changed from a clickable pdf to a website.
- The navigation system was changed to remove all redundant information that was originally included.
- All unnecessary details and screaming colors were left out to prevent distraction.
- The layout of the webpages are now the same for all pages. Next to that, the information is structured to promote a quicker use and to promote scanning.
   In Figure 5, a webpage from the final design is shown. Here, the same information is stated as in Figure 4.





Maak je eigen verhaal
Maak je eigen verhaal
Maak je eigen verhalen
Bestaande verhalen
Privé
Mantelzorg
Vrije tijd en publiek
Arbeid
Onderwijs

Ervaringsverhaal
Algemeen

Het kan soms best lastig zijn om met anderen te praten en je verhaal duidelijk te verteilen. Ook voor je gesprekspartner is het fijn om te weten waarmee rekening

© Er bestaan verschillende NAH-uitlegkaartjes die je aan de ander kan geven om te laten weten wat er voor jou moeilijker is, zoals deze van hersenletsel-uitleg en deze van hersenletsel.nl.



0

Of deze tips van HersenZ om met overprikkeling toch een gesprek te voeren

Je komt mogelijk ook momenten tegen in je leven wanneer je besluiten moet nemen en hierover jouw mening wordt gevraagd. Het werkboek 'Inspraak en Zeggenschap', nodigt mensen uit na te denken over de manier waarop zij inspraak willen geven.

Tot slot kun je ook je eigen ervaringsverhaal delen door er zelf één te maken.



Figure 5. General information page in domain 'labor' in the final design.



# Conclusion & recommendations

To conclude, the UI of the 'Ervaringskoffer' has been redesigned to provide people with an ABI with a better UX. However, to find out if the website fully works, it simply has to be put online. When the website is online, adjustments should be made to optimize the design.

#### References

Hersenletsel-uitleg. (n.d.). *Algemene info oorzaken NAH / Soorten hersenletsel hersenaandoeningen | Hersenletsel-uitleg.nl*. Accessed at 8 April 2021. https://www.hersenletsel-uitleg.nl/soorten-hersenletsel-hersenaandoeningen/algemene-info-oorzaken-nah

Hersenletsel. (2018, 17 December). Wat is NAH. https://www.hersenletsel.nl/allesover-nah/wat-nah

Hersenstichting. (2020, 21 April). Wat is niet-aangeboren hersenletsel? https://www.hersenstichting.nl/hersenaandoeningen/niet-aangeboren-hersenletsel/

Paterson, J., & Stewart, J. (2002). Adults with Acquired Brain Injury: Perceptions of Their Social World. *Rehabilitation Nursing*, *27*(1), 13–18. https://doi.org/10.1002/j.2048-7940.2002.tb01973.x

van Tol, E., Gorter, J. W., DeMatteo, C., & Meester-Delver, A. (2011). Participation outcomes for children with acquired brain injury: A narrative review. *Brain Injury*, 25(13–14), 1279–1287. https://doi.org/10.3109/02699052.2011.613089

ZonMw. (n.d.). *NAH-Kennisnetwerk: Gewoon Bijzonder met niet-aangeboren hersenletsel (NAH) - ZonMw*. Accessed at 8 April 2021. https://www.zonmw.nl/nl/onderzoek-resultaten/gehandicapten-en-chronischzieken/programmas/project-detail/gewoon-bijzonder-nationaal-programmagehandicapten/nah-kennisnetwerk-gewoon-bijzonder-met-niet-aangeborenhersenletsel-nah/