Co-Designed Teaching Guide

addressing the diverse needs and challenges of immigrant women studying at ReDI School

Radina Antonova



MASTER'S THESIS PROJECT

ReDI School of Digital Integration

KØBENHAVN AALBORG UNIVERSITET

ABSTRACT

This document is a master thesis, written by Radina Antonova for the Master's programme, Service Systems Design at Aalborg University Copenhagen, worked on from 12th December 2023 until 24th May 2024. The project was supervised by Nicola Morelli, Professor at Aalborg University.

This thesis aims to research how service design principles, specifically participatory design and empathy, can be leveraged to create a teaching guide for non-EU immigrant women who take courses at ReDI school, by addressing their needs, challenges, and complex roles as mothers, wives, and migrants in Denmark. The literature review done for this thesis encompasses four primary themes: teaching service design, the application of participatory design in enhancing teaching methods and curriculum development, education strategies for immigrant women, and gender differences in learning styles between men and women. The author chose the design thinking methodology as the overarching framework guiding the overall process, the principles and methods of service design and participatory design, and incorporated RtD as the methodological approach for this thesis. The author facilitated a design experiment by teaching a Service Design Course, applying participatory design approach to gain better insights, and tailor the teaching guide that can be used for better learning outcomes.

SEMESTER:
Fourth Semester

PROJECT TITLE:
Co-designed Teaching Guide

MASTER'S PROGRAMME:
Service Systems Design at Aalborg University Copenhagen

PROJECT PERIOD:
December 2023 - May 2024

SUPERVISORS:
Nicola Morelli

GROUP MEMBERS:

Radina Antonova Antonova
ranton22@atudent.aau.dk
20220375

SUBMISSION DATE:
24th May 2023

COPIES:
3

PAGES:
66.8 standard pages

CHARACTERS:
160 432 characters with spaces

ACKNOWLEDGMENTS

I would like to thank ReDI school for making this collaboration possible, and providing me with the space and materials to facilitate the Service Design Course. Specifically Thomas Andersen who was always there to support me and provide answers.

I also want to say huge thank you to all the students who signed up for the course, but especially the ones who stayed with me until the end and made this thesis an amazing learning opportunity.
Those students are Elyse Galizio , Gul Bibi, Bijal Veera, Zyna, Jyoti and Suraiya Kasim.

Lastly, I want to thank my supervisor Nicola Morelli for the incredible support he provided, the direction when I was lost, tons of knowledge, and reassurance when I needed it.

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INTRODUCTION

INTRODUCTION

The following process report is a summary of the entire process that the author undertook in pursuit of understanding how service design methods can facilitate and improve the learning process of non-EU immigrant women who take courses provided by ReDI school. ReDI School of Digital Integration Denmark (ReDI from now on) is a non-profit organisation dedicated to empowering women and non-binary people with refugee and migrant backgrounds. They support the enhancement of digital skills and facilitate the integration into Danish workplaces and society by providing free digital education. (ReDI School Copenhagen, n.d.) They do so through the help of volunteers who have experience in the fields they teach in. When ReDI was first founded, they were scouting for volunteers, however nowadays their vision and mission attract professionals who are eager to share their knowledge.

This thesis focuses on developing a comprehensive teaching guide that addresses the diverse needs, challenges, and barriers faced by course participants, considering their roles as mothers, wives, and immigrants. To achieve this, a human-centred approach was adopted, utilising a participatory design approach. As part of a 12-week Service Systems Design (SSD from now on) course that was conducted as a design experiment, the author assumed the role of a facilitator, collaborating closely with the course participants, other teachers, and staff from ReDI to tailor the guide to the specific needs of the students in her course.

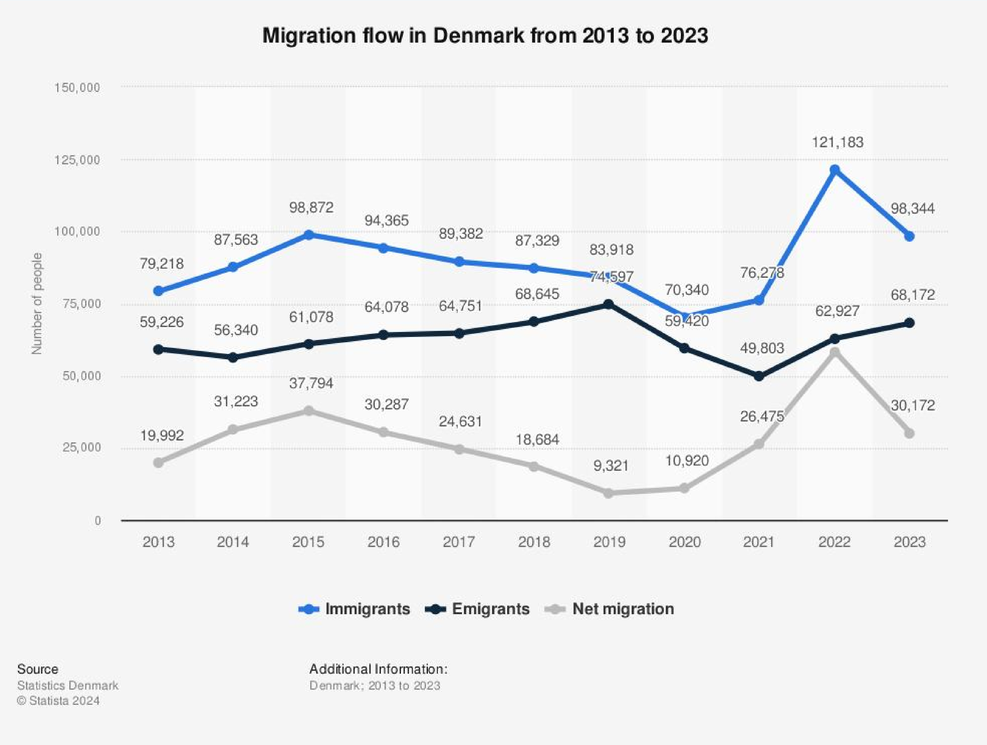
The current state of service design shows a growing prominence and recognition, especially in higher education. (Ding et al., 2023) Furthermore, in academic settings, teaching service design is centred around experiential learning, where students engage in practical, project-based activities that provide a comprehensive understanding of service design principles in real-world contexts by working on projects with real stakeholders. (Salinas et al., 2023) Additionally, using participatory design bridges the gap between the intended learning environment and students' perceptions, ensuring the compatibility that is essential for effective learning, as students' interpretations directly influence learning outcomes. (Könings et al., 2013)

Throughout the thesis, the author reflects on her experiences as a facilitator and a service designer, and the insights gained from employing participatory design principles to co-design a teaching guide that is responsive to the unique circumstances of immigrant women.

CONTEXT

According to statistics from Statista, the total number of immigrants in Denmark has consistently risen since 2012, with a notable spike in 2022. (Denmark: Migration Flow 2020, 2024) As per the data from Statista, in 2022, women accounted for more than 51% of the total immigrant population, with over 63,000 female immigrants entering the country. (Statista, 2024) In 2019, Statistics Denmark reported that the employment rate amongst female immigrants aged 16-64 with non-Western backgrounds stood at 52.1%. (KVINFO, n.d.) However, according to Danmarks Statistik, in 2019 the employment rate for immigrants from non-Western countries was 42.4% for women, compared to 74.4% for Danish women. (Danmarks Statistik , 2019) A study by Deding and Jakobsen finds a significant negative relationship between traditional views on gender roles and the employment probability for women. It suggests that attitudes towards gender roles play a crucial role in determining the employment outcomes of immigrant women in Denmark (Deding & Jakobsen, 2008). Danmarks Statistik highlights education and skills as key factors in determining immigrant employment prospects, with higher-educated immigrants more likely to find work in Denmark (Danmarks Statistik, 2019).

Paramountly, the high cost of higher education in Denmark for non-EU citizens creates a significant financial obstacle that disproportionately impacts women, limiting their access to education and employment opportunities (KVINFO, n.d.; Danmarks Statistik, 2019). It is in this context that ReDI plays a crucial role in bridging the gap, by providing free education for immigrant women, and, therefore, breaking down barriers and fostering empowerment. Since 2019 in Copenhagen, ReDI has offered a diverse range of courses, from introductory computer skills to advanced technology training, as well as a comprehensive career programme that includes mentorship, career workshops, company visits, job matching, and other supportive measures.



Denmark: Migration Flow 2020, 2024

Empowering people involves creating an environment in which they feel heard, respected, and included as active participants in decision-making processes. Empowerment is a multifaceted concept that encompasses psychological, social, and cultural dimensions (Cattaneo & Chapman, 2010). Fundamentally, empowerment is about enabling people to have a voice, make choices, and apply control over their lives (Perkins & Zimmerman, 1995).

CONTEXT

Empowering people through inclusion and hearing their voices is closely aligned with the principles of participatory design. Participatory design is an approach that actively involves all stakeholders in the design process to ensure the final product or service meets their needs and expectations (Sanders & Stappers, 2008). By engaging the various stakeholders throughout the design process, participatory design creates an environment where diverse voices are heard and included. (Robertson & Simonsen, 2012).

Empathy is a crucial component of participatory design, as it enables designers to deeply understand the experiences, challenges, and aspirations of the stakeholders involved (Kouprie & Visser, 2009). By empathising with the different stakeholders, designers can create more inclusive and effective solutions that address their specific needs (Smeenk et al., 2016). This empathetic approach is particularly important when working with underrepresented or marginalised groups, such as women, to ensure their voices are heard and their unique perspectives are incorporated into the design process (Bardzell, 2010).

Through continuous empathising with the different stakeholders involved in the courses by ReDI, primarily with the SSD course students, and involving the students in decision-making, the author uncovered a range of problems, barriers, and challenges that are hindering the successful learning process of the students. Some of the barriers and challenges that the students face when attending a course from ReDI are unsupportive spouses, children's schedules, other family matters, understanding literature and/or class material, time management (no time for group work), self-doubt, and others. On the other hand, teachers face the problem of language barrier and lack of engagement from the students, which in itself leads to dropouts.

LEARNING GOALS

The following learning goals are the official ones provided by the master's programme in the Curriculum (Aalborg University, 2023).

KNOWLEDGE
- knowledge about the appropriate methodological approaches to specific study areas
- knowledge about design theories and methods that focus on the design of advanced and complex product-service systems
- knowledge about the relevant literature in the Service Design field

SKILLS
- work independently, to identify major problem areas and adequately address problems and opportunities
- analyse, design and represent innovative solutions
- evaluate and address major organisational and business issues emerging in the design of a product-service system

COMPETENCES
- master design and development work in situations that are complex, unpredictable and require new solutions
- independently initiate and implement discipline-specific and interdisciplinary cooperation and assume professional responsibility

Additionally, the author established her own objectives to explore during this semester.

PERSONAL GOALS
- Practice and improve facilitation and co-design skills
- Exercise empathy by designing human-centred solutions
- To learn to collaborate with an organisation addressing its stakeholders and their needs.
- To contribute with useful and meaningful insights to the organisation and its stakeholders.

LITERATURE REVIEW

LITERATURE REVIEW

The following chapter establishes the theoretical foundation for the thesis and the literature-based exploration that supported the framing of the research question. Additionally, it demonstrates how the literature supports the hypothesis, and helps the decision-making throughout the whole process, especially during the design experiment.

The literature review encompasses four primary themes: teaching service design, the application of participatory design in enhancing teaching methods and curriculum development, education strategies for immigrant women, and an examination of gender differences in learning styles between men and women.
Lastly, at the end of each subchapter, the author reflects on the literature, and what the implications are for the design process.

TEACHING SERVICE DESIGN

Teaching service design
Service design and service design pedagogy are essential elements of design education, and over the past decade service design has become popular when solving design problems (Ding et al., 2023; Suoheimo et al., 2020). Teaching service design means providing education and training on the principles, methods, and skills required to design and improve services. Moreover, it involves imparting knowledge and understanding of the various aspects of service design, including the nature and characteristics of services, user interaction, design methodology, and the integration of different disciplines, perspectives, and stakeholders. Additionally, teaching service design involves cultivating skills in problem-solving, facilitation, collaboration, and communication (De Götzen et al., 2014). Teaching service design involves fostering a mindset of empathy, and iterative problem-solving, as well as equipping students with the tools and techniques necessary to navigate the complexities of multi-stakeholder projects (Salinas et al., 2023). Furthermore, as a heterogeneous and expanding discipline that shows a growing prominence, (Ding et al., 2023) there are many advantages to teaching service design.

Such advantages include, but are not limited to: a holistic problem-solving approach, collaboration and co-creation skills, practical application through hands-on learning, and consideration of social and environmental impact (Cameron et al., 2001). Learning-by-doing way of teaching not only equips students to navigate through the inherent complexity of the discipline but also allows them to experiment and fail safely (Salinas et al., 2023; Checkoway, 1997). Additionally, teaching service design promotes a systems thinking mindset, an iterative and agile approach to problem-solving, and real-world application through project-based learning (Salinas et al., 2023). Overall, teaching service design provides students with a versatile and rich toolbox that can be used across industries and sectors; it fosters innovation, collaboration, and a human-centred approach to problem-solving.

As service design has many definitions (Stickdorn et al., 2018), this diversity is reflected in the various approaches used to teach service design, some of which include participatory design and problem-based learning (Traina & Fracasso, 2016). The master's programme at Aalborg University Copenhagen uses the latter approach (Kolmos et al., 2004) as it creates a strong link between theory and practice, transforms teaching and supervision into facilitation, allowing students to engage directly with the key issues in each teaching area, and prompts students to take control over their own learning (De Götzen et al., 2014) (Kolmos et al., 2008). Additionally, the paper from Salinas et al. (2023) elaborates further on giving the students agency over their own learning, arguing that it aligns with critical pedagogy (Freire, 2005) where the educator is setting the space as well as the problem to facilitate the learning, but the action comes from the students' side. This allows them to draw knowledge from their lectures, but also from their lived experiences.

LITERATURE REVIEW

TEACHING SERVICE DESIGN

Teaching service design at the beginner level
Most of the sources found online, while informative, are not sufficient for a rigorous literature review that critically examines, and synthesises the existing body of research on this subject. The examined sources are curriculums of bachelor programmes in universities, and online courses that are offered to either beginner or intermediate-level students.
In the course “Service Design: How to Design Integrated Service Experiences” provided by the IDF (Interaction Design Foundation, n.d.), students at an intermediate level are instructed on the fundamental concepts of service design, encompassing its definition, procedural framework, optimal strategies, methodologies, and applicable tools. This educational program is tailored for individuals with prior experience in UX Design, Product Design, or those engaged in roles as product/project owners, ensuring a comprehensive understanding and practical application of service design principles.

In another course by the authors of the book “This is Service Design Doing”, that is called “Essentials” (This is Service Design Doing, n.d.), the teachers cover service design basics (stakeholder maps, personas and customer journey maps), advanced tools, business tools, prototyping and testing sessions. The goal is to equip participants to start their own projects in an organisation.

By taking the BA (Hons) Service Design programme by the University of Arts London (University of Arts London, 2024), students learn through technical and theoretical methods and principles, work with stakeholders, and develop the ability to recognise and respond to complex intersections.

The Service Design Network discusses the essential traits required for educating individuals in service design to adapt to the evolving practice. It emphasises the significance of human skills in service projects, highlighting the need for collaboration, communication, facilitation, and understanding of organisational culture and behavioural science. Moreover, the article underscores the importance of empathy in initiating change and preparing students to address the diverse factors influencing human behaviour in service design contexts (Mirzaie & Parlato, n.d.).

The Service Systems Design master's programme at Aalborg University (Aalborg University, n.d.) is structured upon a pedagogical approach that gradually increases the magnitude and intricacy of the design problems encountered by the students. During the first semester, the students are exposed to the multifaceted discipline of service design, encompassing technical components, aspects related to user interaction, and design methodological frameworks (De Götzen et al., 2014). Although it is a master’s program, the first semester, named "The Craft of Design," serves as an introduction to service design with the main objective of teaching students state-of-the-art methods and tools to design a single service. According to the paper, the first semester looks at the way a designer can create a specific instance of a service; providing an example: how a local restaurant can personalise its meal service.

Overall, what the five examples have in common is that they all teach the basics of service design, methods and tools that are explicitly related to the field, and ensure the students can work collaboratively, manage and consider stakeholders, and design for multiple touchpoints. This leads to the conclusion that beginner service designers should be taught the above-mentioned skills, methods and theories.

LITERATURE REVIEW

TEACHING SERVICE DESIGN

Teaching design to non-designers
Mindset is one of the main pillars of innovation (Kahn, 2018), and according to Ringe et al. (2009) designing is a process about bringing about innovation, therefore mindset is equally important to design. Additionally, Andreasen et al., (2015) and J.J. Daalhuizen, (2014) have established that mindset has an impact on design decisions and processes. Furthermore, mindset can be described as a sum of the cognitive activities needed for a successful task performance (Gollwitzer, 2012). Leading the author to believe that having a designerly mindset is of paramount importance when working with designing.

However, Manzini states: “In a world in rapid and profound transformation, we are all designers” (Manzini, 2015). According to him, to design means to think and do things that entail reflection and strategic sense, which calls people to look at themselves and their context and decide whether and how to act to improve the state of things. Manzini further argues that although everyone has a design mindset, to be usable it needs to be cultivated.

Teaching people to have a design mindset involves a many-sided approach that incorporates various strategies to foster creativity, empathy, and problem-solving skills. According to Atkinson (2017) some of the strategies are 1)Clarify Fundamental Concepts - explaining basic design principles; 2)Emphasise Sketching and Visualisation - practice visualising their thoughts; 3)Engage with Hands-On Activities - experiential learning can make design concepts more tangible and accessible.

In his book “The Design of Everyday Things”, Don Norman (Norman, 1988/2013) aims to make the principles of good design understandable and accessible to a broad audience, including non-designers. He emphasises human-centred design, teaching the importance of understanding the end-users, and encouraging students to empathise with the different stakeholders. Norman suggests teaching through real-world examples, as this can help non-designers understand abstract concepts through tangible examples. Furthermore, he explains that making learning interactive and engaging is also helpful to students who are new to design. Another aspect he promotes is encouraging students to think critically, and have a problem-solving attitude.

Understanding these differences can be beneficial in educational settings to cater to diverse learning preferences. Based on the researched literature, the author has come to the conclusion that cultivating a design mindset, essentially, means embracing a human-centric, empathetic, and creative approach to problem-solving, fostering innovation, resilience, and meaningful solutions that resonate with users. This also aligns with teaching service design as students should have agency and autonomy over their projects, and learning experiences. Lastly, the similarities between teaching SD at the beginner level and teaching design to non-designers are that the fundamentals and basics should be explained, engaging in hands-on activities, and emphasising human-centred design principles. The three topics collectively contribute to the development of individuals capable of navigating the complexities of service design.

LITERATURE REVIEW

USING PARTICIPATORY DESIGN IN TEACHING

According to Sanders & Stappers (2008), participatory design is an approach where users are actively involved in the design process, ensuring the products, systems, or services being developed meet the actual needs and preferences of the people who will use them. This approach reflects a more human-centred design philosophy, focusing on understanding and leveraging users' knowledge and creativity to produce more relevant and effective solutions. Thus, to improve the learning process of students, their views need to be incorporated into the development of the curriculum, and teaching materials and methods. However, in many instructional theories, and teaching approaches, only the teacher is the directing agency (Vermunt & Verloop, 1999).

The sense of not being heard, or included in the process causes alienation, experiences of anonymity and powerlessness, which contribute to disengagement from school, with possible consequences such as skipping classes, and dropping out of school (Mitra, 2004; Smyth & Fasoli, 2007). Könings et al. (2011a) have established that students' satisfaction with teaching is related to their motivation to learn. Additionally, creating the space for all voices to be heard and considered creates a sense of ownership, which leads to empowerment (Robertson & Simonsen, 2012; Rabinowitz, 2018). Moreover, Könings et al. (2013) argue that for successful learning outcomes, not only students but teachers too have to be included in the creation of the learning instructions. Cook-Sather, (2003) states that "students should help shape rather than simply be shaped by educational policies and practices'.

One way to include all stakeholders that are directly affected by the learning environment and teaching methods is by using an interactive and collaborative design approach that takes into consideration the views, knowledge, and experience of the various stakeholders, such as a participatory design approach (Penuel et al., 2011).

Participatory design in teaching involves collaboration between educational designers, teachers, and students to create more effective learning environments and engaging educational experiences. The Combination-of-Perspectives (COOP) model, proposed by Könings et al. (2005), emphasises this collaboration by integrating the views of designers, teachers, and students. By fostering mutual exchange and understanding, the COOP model aims to improve the design and implementation of learning environments, ultimately enhancing students' learning outcomes, engagement, and satisfaction.

The COOP model is a framework for leveraging participatory design in teaching. The COOP model consists of four key elements:

1. Co-creation: Designers, teachers, and students collaborate to create learning environments together. This involves sharing ideas, providing feedback, and making joint decisions.
2. Ownership: By actively participating in the design process, teachers and students gain a sense of ownership over the learning environment. This increases their commitment, and motivation to use the designed tools and materials effectively.
3. Orientation: The COOP model emphasises the importance of aligning the perspectives of designers, teachers, and students. This orientation phase helps ensure that the learning environment meets the needs, and expectations of all stakeholders involved.
4. Partnership: The COOP model establishes a partnership between designers, teachers, and students, where each group is seen as an equal contributor to the design process. This partnership fosters mutual understanding and respect among the participants.

LITERATURE REVIEW

USING PARTICIPATORY DESIGN IN TEACHING

By applying the COOP model, participatory design can be leveraged to create more powerful learning environments that are tailored to the specific needs, and preferences of teachers, and students. The active involvement of all stakeholders in the design process leads to learning environments that are more engaging, effective, and aligned with the goals of education. Additionally, the book by Auerbach, (1992) Making Meaning, Making Change, which focuses on teaching immigrant women by incorporating participatory design states that “each group brings its own set of family situations, language and literacy backgrounds, community problems, employment circumstances, and cultural strengths to the learning situation, and each of these factors must be taken into account in curriculum development”. Auerbach says that the most effective curricula are those tailored to and developed with participating learners.

TEACHING IMMIGRANT WOMEN (IN DENMARK)

The reviewed literature shows that over the past 10 years, there has been an increase in the proportion of 25-39-year-old immigrant women of non-Western origin who have completed a Danish education leading to vocational/professional qualifications, increasing from 53% in 2010 to 70% in 2021. Immigrant women in Denmark face challenges related to language barriers, cultural differences, and integration into the education system. Denmark's approach to that involves a focus on language training, cultural diversity, and the integration of immigrants into the education system (Ministry of Immigration and Integration, 2022). Currently, Denmark is pushing for more immigrant-origin teachers to serve as role models and enhance the educational experience of immigrant students. Moreover, the country emphasises the importance of teacher training to support diversity, and cultural understanding in schools (Denmark et al., 2010).

Some of the successful initiatives address the specific needs of migrant women, such as providing free childcare during classes, and mentoring by other migrant women. Moreover, policies should move away from the "one-size-fits-all" approach, and incorporate gender-sensitive measures to better integrate migrant women into society (Education and Training of Migrant Women: What Works?, 2024).

On the other hand, immigrant women play crucial roles within their families, impacting various aspects of family dynamics and migration experiences. The researched literature highlights that women are significant participants in family migration processes, often migrating to improve their family's economic status, as their spouses have found a job (Zlotnik, 1995). As these women come from countries with very strong patriarchal systems, the author also researched the decisional power when migrating, the role of women in their families when migrating, and more in-depth about the role of migrant women once the family has migrated. This information was sought due to the interest of the author to find out if immigrant women have the freedom to choose their own path, or if their decisions were made by the family, or the men in their lives. However, the found literature did not support the angle the author was interested in. What was found was that once men migrate for work purposes, this gives more decisional power, and autonomy to the women who stay behind (Agadjanian et al., 2011).

The paper Participatory Education as a Critical Framework for an Immigrant Women's ESL Class by Frye (1999) focuses on participatory education of immigrant women in the United States. Although the paper is for a demographically different target group than the target group of this thesis, the author deemed it important to review this paper due to the similarities between this thesis's goal and approach, and the paper’s.

LITERATURE REVIEW

TEACHING IMMIGRANT WOMEN (IN DENMARK)

The goal of the paper is to examine Frye's experience as an ESL teacher to immigrant women, and how participatory design helped her foster empowerment and engagement in her students. Frye's goal was to create a classroom of possibility where her participants could experience the "opening of spaces imagination to reach beyond where they are". According to the author, such spaces are places where students' voices would be louder and stronger than the teacher's, allowing them to freely "express indignation, break through the opaqueness, [and] refuse the silences" imposed by the dominant social, cultural, economic, and political forces shaping their lives as minority language speakers. She used problem-posing to encourage them to think critically and share their opinions. Additionally, she took on the role of a guide, allowing her students to direct the development of the curriculum by bringing up social issues central to their lives, and discussing them in class.

LEARNING STYLES MEN VS WOMEN

How can teachers teach their students if they do not know what the learning styles of their students are? According to Coffield et al. (2004) report, learning style is the interplay between personal and contextual influences. They cite Kolb's "Facilitator's Guide to Learning" where Kolb states that a learning style is a "differential preference for learning, which changes slightly from situation to situation". Brew (2002) found that the Learning Style Inventory by Kolb is sensitive to gender and the validity of the instrument score varies for females and males. The notion that teachers and course designers should closely consider students' learning styles holds strong intuitive appeal. Additionally, the report by Coffield et al. (2004) establishes that there are many different learning styles, one of which is VARK - visual, auditory, reading and writing, and kinesthetic (Coffield et al., 2004; Bay Atlantic University, 2021).

While learning styles are highly individual, the researched literature agrees that it can also be based on the gender of the student - men and women have different learning styles (Severiens & Ten Dam, 1994; Marantika, 2022; Hamidon, 2015). The paper from Severiens & Ten Dam (1994) provides evidence that there are notable differences in learning style preferences between men and women. Women generally prefer a collaborative learning environment and are more likely to engage in activities that involve discussion and group work. They also tend to favour a holistic approach to learning, where they see the big picture first. Moreover, according to Hamidon (2015), while both genders can exhibit multimodal learning styles, the study suggests that women are more likely to effectively combine multiple learning styles compared to men. This means women can adapt better when different methods (visual, auditory, kinesthetic, reading/writing) are integrated into the learning environment. Another paper by Demirbas & Demirkan (2007) that focuses specifically on design students confirms this. The authors elaborate that from the four VARK learning styles, women prefer the kinesthetic one the most - they tend to learn the best from hands-on experiences and simulations. Additionally, women also tend to prefer auditory learning through lectures and discussions (Severiens & Ten Dam, 1994).

LITERATURE REVIEW

LEARNING STYLES MEN VS WOMEN

The implications for teachers, based on the reviewed literature, are to incorporate group projects and discussions to facilitate collaborative learning environments. This will support women's preferences to work in groups, and have more hands-on experiences. Moreover, using real-world examples to engage students will help women and support them when they need to adapt to different methods, and specifically learn through auditory style. Lastly, by creating a supportive and empathetic classroom atmosphere to enhance engagement and learning outcomes, the teachers can ensure that women can safely express themselves and learn in their preferred way.

CONCLUSION

The comprehensive analysis of the literature on teaching service design, cultivating a design mindset, utilising participatory design in teaching, and understanding learning styles based on gender differences provided valuable insights for educational practices.

Teaching service design involves imparting knowledge, skills, and methodologies essential for designing and improving services, fostering problem-solving skills, collaboration, and a human-centred approach to problem-solving. Cultivating a design mindset is crucial for innovation, emphasising a human-centric, empathetic, and creative approach to problem-solving. Participatory design in teaching enhances learning environments by involving users in the design process, ensuring relevance and effectiveness. Understanding learning styles based on gender differences highlights the importance of tailoring educational approaches to accommodate diverse preferences, particularly emphasising collaborative learning environments for women.

In conclusion, integrating these principles into educational practices can enhance student engagement, learning outcomes, and the development of individuals capable of navigating the complexities of service design effectively. By fostering innovation, collaboration, and empathy, educators can create inclusive and effective learning environments that cater to the diverse needs and preferences of students, ultimately contributing to meaningful and impactful educational experiences. By applying this knowledge in the design process, the author will create a teaching guide which is tailored to the needs of the stakeholders, and can be adapted.

METHODOLOGICAL APPROACH

METHODOLOGICAL APPROACH

In the following chapter, the author outlines the methodological approach by discussing the relevant theoretical foundations and the disciplinary contexts in which it is grounded. Moreover, the analyses of the interviews with experts in the different topics that provided relevant advice, and helpful direction, are included. Additionally, this discussion will cover the methods and tools used to support the research process, highlighting their key role in shaping the design process's direction. The chapter concludes with an analysis of the stakeholder research outcomes.

The author has chosen the design thinking methodology as the overarching framework guiding the overall process, selected for its iterative nature that aligns with the exploratory essence of the research question. The principles and methods of service design and participatory design have been drawn upon to support this primary methodology, enriching the approach. By incorporating elements from these supporting methodologies, the author has enhanced the depth and breadth of the design process. Additionally, the author used the Research Through Design approach which, unlike traditional scientific methods that often separate theory from practice, integrates the two by making design practice itself a form of research.

DESIGN THINKING METHODOLOGY

Design thinking methodology was chosen as a guide to the design process due to its iterative, non-linear, and human-centred nature. (IDEO, n.d.) Those three aspects are the main reason why the author chose this methodology as a guide, as it closely aligns with the need to design for immigrant women's needs and challenges when taking a course. By putting the human in the centre, the author was able to work in an empathic direction. Additionally, according to Tim Brown, design thinking doesn't have one single definition, as it is "a set of both mindsets and design-based activities that foster the collaboration required to solve problems in human-centred ways." (Brown, n.d.). As the author also aimed to use participatory design and therefore collaborate with the relevant stakeholders, design thinking proved useful with its five stages. Furthermore, design thinking was chosen as it allows for a hands-on process that encourages the designer to learn by doing (Foster, 2019). This hands-on process proved to be more useful than only theoretical approaches, as it allowed the author to experiment and try out different methods to figure out what best suits the needs of her students, and what could be used to create the teaching guide.

METHODOLOGICAL APPROACH

DESIGN THINKING METHODOLOGY

The principles of the Design Thinking methodology revolve around key concepts that drive the process. Design thinking focuses on understanding human needs and user feedback to create solutions that address unique challenges and pain points. Empathy towards users is crucial for identifying their motivations and needs. Encouraging diverse perspectives and ideas from various departments within an organisation is essential. Collaboration ensures a melting pot of innovation, where insights from different areas contribute to the development of successful products and services. Design thinking is a solution-based framework that thrives on generating ideas. Ideation involves creating a judgment-free zone where individuals can freely express their opinions through techniques like mind mapping, sketching, and brainstorming. These principles underscore the importance of user-centricity, collaboration, and ideation in the Design Thinking process, emphasising the iterative nature of finding innovative solutions grounded in empathy and creativity (Micheli et al., 2019; (Glukhovskyy, 2024).

As the goal of this thesis is to create a human-centred teaching guide, the author chose the five stages of design thinking proposed by Stanford Design School - empathise, define, ideate, prototype, and test (Dam, 2023; O'Donoghue, 2022;). The goal of using these stages specifically is to fully utilise the design process, by fostering creativity in exploring possible solutions while staying empathic to the stakeholders and their needs. Moreover, a design thinking process is iterative and includes convergent and divergent thinking (IDEO, 2024). This allows the designer to shift from thinking and doing horizontally, to narrowing down ideas and decisions.

SERVICE DESIGN

Just like design thinking, service design also does not have a single definition (Stickdorn & Schneider, 2012). According to Marc Stickdorn, service design is an interdisciplinary approach. In the book This is Service Design Thinking, there are more than 20 definitions by different people, academic organisations, and consultancy companies. However, they all agree that service design is a holistic, integrative, human-centred approach to design services that are innovative, useful, usable, and desirable by the user, where the designer also collaborates and mediates various stakeholders (This is Service Design Doing, n.d. pp. 22-25).

Services are intangible, and consisted of acts and processes; they exist in time only, and they cannot be touched, smelled, owned, or seen (Shostac, 1982; Hill, 1999; Morelli et al., 2020 pp16-18). In her paper, Shostac (1982) proposes the term blueprinting to describe the activity of designing the sequence of actions that are included in a service. Clatworthy (2010) proposes that services are interactions between service providers and customers, saying that services are experiences that happen over time. Service design has also been defined in relation to the coordination of the backstage of services - the design of facilities, servers, equipment, and other resources needed to produce the service (Morelli et al., 2020; Ghosh et al., 2004).

METHODOLOGICAL APPROACH

SERVICE DESIGN

Additionally, service design focuses on the actors approach, meaning that value is co-created through the interactions of various stakeholders or actors, including businesses, customers, and other entities within a network. Reality is considered as ”produced” by the collaboration among different actors, and the designers’ attitude would consider solutions as coming from people’s direct participation into their development. Vargo & Lusch (2004) discuss a similar approach - the service-dominant logic, in which actors are co-creators of the service, and not only passive participants (in comparison to the IHIP paradigm where customers have a more passive role) (Morelli et al., 2020). Furthermore, Hill (1999) argues that services have two notable characteristics, one of which is that services cannot be produced without the agreement, co-operation, and possibly active participation of the consuming unit(s).

But how is a service designed? According to Stickdorn & Schneider (2012), there are five principles that need to be followed to design a service: 1) User-centred - Services should be experienced through the customer’s eyes; 2) Co-creative - All stakeholders should be included in the service design process; 3) Sequencing - The service should be visualised as a sequence of interrelated actions; 4) Evidencing - Intangible services should be visualised in terms of physical artefacts; and 5) Holistic - The entire environment of a service should be considered.

The author utilised the characteristics of service design by 1) empathising with the user through user interviews, workshops, and constant feedback and discussions; 2) workshops and conversations involving the various stakeholders in order to further develop the solution, and tailor it to the specific needs; 3) using journey mapping and service blueprinting to visualise the service; 4) creating a teaching guide that can be adjusted to the needs of the classes; 5) taking into consideration the user’s background as immigrant women, the location and time the classes take place, the process of hiring volunteers, and the process of creating a study curriculum.

Additionally, the above-mentioned characteristics and principles of service design prompted the author to dive deeper into how to collaborate more closely with the different stakeholders and incorporate them throughout the whole process in order to create a closely tailored guide for the context.

METHODOLOGICAL APPROACH

PARTICIPATORY DESIGN

The most suitable approach to collaborate closely with the various stakeholders in the design process and include them in the decision-making is applying a participatory design approach. Sanders & Stappers (2008) describe this approach as a collaborative approach where designers and end-users work together in the design process. It emphasises the active involvement of users in shaping the design of products, services, or systems to ensure they meet user needs and expectations. This approach aims to create more meaningful and user-centred solutions by integrating the knowledge, experiences, and creativity of all stakeholders involved in the design process.

By increasing the involvement of stakeholders, the feeling of ownership increases as well as the feeling of empowerment, they perceive that they have a degree of control over the outcome, which leads to increased engagement. Furthermore, when stakeholders are included in assessment, planning, and implementation activities, they develop a clearer understanding of the project and can contribute their knowledge and perspectives. This transparency and early involvement help stakeholders feel that the process is truly open, and that their concerns are being addressed (Rabinowitz, 2018; Sanders & Stappers, 2008). Moreover, Sanders & Stapper (2008) state that the integration of diverse perspectives via stakeholder engagement enhances decision quality by leveraging individual knowledge and experiences, thereby positively influencing the outcome. This is also confirmed by Jørgensen et al. (2011) who adds that engaging actors in participatory design leads to more innovative and robust solutions.

The principles of participatory design that the author followed throughout her process are: 1) Adaptive: The co-design process should be flexible and able to adapt to changing circumstances or new information that emerges during the process; 2) Context Sensitivity: Considering the specific contexts and environments in which the innovations will be used; 3) Mutual Learning: Facilitating knowledge exchange and learning among all actors involved; 4) Inclusivity: Engaging a diverse range of stakeholders to bring multiple perspectives; 5) Collaboration: Ensuring active participation and shared decision-making among all participants; 6)Iterative Process: Emphasising continuous refinement through repeated cycles of feedback and improvement; 7) Respectful: The co-design process should be conducted in a manner that respects the contributions and perspectives of all participants (Jørgensen et al., 2011; Sanders & Stappers, 2008).

The author utilised the principles of participatory design by 1) not finalising the lectures before the course started to be able to adjust depending on the received feedback; 2) creating the lectures considering the skills that the students needed; 3) asking for feedback, and learning from the students on how they preferred the class to continue; 4) included the major stakeholders in the design process such as students, teachers, hiring manager, course coordinator; 5) collaborated both with students and teachers to create the solution; 6) reiterated the stages of design thinking to gain a better understanding; 7) all perspectives were considered and gathered in a way comfortable for the participants.

METHODOLOGICAL APPROACH

RESEARCH THROUGH DESIGN

Another approach that was undertaken was Research through Design (RtD). Frayling coined the term when he proposed to differentiate between various kinds of design research. He described RtD as “Taking design as a particular way of thinking, and a particular approach to knowledge, which helps you to understand certain things that are outside design” (Frayling, 2015). Zimmerman et al. (2010) described Research Through Design as a research approach that uses design practice as a method of inquiry. By combining knowledge and theories from various disciplines and employing an iterative process, RtD aims to reframe problematic situations towards desired outcomes. Furthermore, RtD’s main practical method is design experiments (Reimann, 2010).

Research through Design entails a combination of subjective and creative components, where designers engage in reflective contemplation and discourse to create knowledge. This knowledge is then articulated explicitly, enabling open discussion, sharing, and further development by others in the field. RtD acknowledges the significance of individual viewpoints and the collaborative exploration essential for advancing design research and practice (Stappers & Giaccardi, 2015).

CONCLUSION

In conclusion, the methodological approach adopted in this thesis combines the principles and methods of design thinking, service design, participatory design, and Research Through Design to create a comprehensive and user-centric framework for developing the teaching guide. By integrating these complementary methodologies, the research process has been enriched with a strong emphasis on empathy, collaboration, and iterative refinement. The methodological approach presented in this chapter demonstrates the power of integrating diverse design methodologies to create a robust and user-centred framework for developing innovative solutions. By leveraging the strengths of design thinking, service design, participatory design, and Research Through Design, the author has laid a strong foundation for the creation of a teaching guide that is tailored to the specific needs of immigrant women and grounded in a deep understanding of the stakeholders' perspectives.

METHODOLOGICAL APPROACH

EXPERTS' INTERVIEWS - APPENDIX 1

Three semi-structured interviews were conducted, adopting an informal conversational approach, to gain insights into the challenges faced by experienced individuals in teaching service design and implementing participatory design practices in practical settings. The primary objective was to explore obstacles encountered by these individuals, and extract valuable lessons from their experiences.

V. B., Service Design lecturer in ITU, Copenhagen - appendix 1a
The first interview was conducted with V.B., a lecturer at the IT University, Copenhagen who teaches the Service Design course. V. also has extensive work experience as a service designer. This made her an ideal candidate to provide valuable insights into effective approaches to teaching service design, potential pitfalls to avoid, and best practices to adopt.

The primary insights the author derived from this interview are threefold. First, the utilisation of concrete, real-world examples greatly enhances student comprehension and engagement with the material. Second, instructing non-designers in design principles poses significant challenges, requiring an extended duration to cultivate the necessary skills. Consequently, the educator must show patience and empathy throughout this process. Finally, maintaining accessibility for feedback sessions, and providing emotional support is paramount, emphasising that design students' struggles are a normal aspect of the iterative process.

When asked regarding recommendations for participatory design activities to collaboratively develop curriculum, the interviewee proposed an exercise called "Guess the Job Position". This activity entails distributing job postings to students, omitting the job title. Students must then infer the position based on the enumerated skills and qualifications. This approach enables learners to assess their current skill set in relation to industry demands, which the facilitator can then leverage to identify gaps and incorporate relevant content into the curriculum.

S.W., UX Designer and teacher at ReDI - appendix 1b
The second interview was conducted with a UX Designer who incorporates service design methods and tools in her professional work. She is also an expert in facilitation and design thinking workshops. Additionally, this interviewee co-teaches the UX course at ReDI. Given her extensive experience and expertise, she was an ideal candidate to provide insights on best practices for facilitation, as well as any specific methods, tools or activities that could aid in co-designing the curriculum.

The interview highlighted the significance of thorough preparation before a session, emphasising the need for facilitators to anticipate various scenarios, and student behaviours. The interviewee emphasised the role of empathy and safe space, the teacher needs to allow everyone to feel comfortable sharing their thoughts and wants. Moreover, this interviewee also advised about making time for feedback sessions for the students. Lastly, when asked about any activities that can help co-design the curriculum, she started brainstorming with the interviewer, coming up with a few exercises - “Grumpy guy” - take the role of a grumpy guy who criticises everything, to look at their ideas; ask a question and create five impossible solutions; find inspiration outside, and have only 20 seconds to explain how it was inspirational.

METHODOLOGICAL APPROACH

EXPERTS' INTERVIEWS - APPENDIX 1

M.V., PhD Fellow at Service Design Lab - Appendix 1c
The final interview was conducted with a PhD fellow at Aalborg University in Copenhagen, who specialises in playful facilitation due to her extensive experience as a play designer. She supports lecturers in the Service Design master's program during lectures and facilitates design thinking workshops. Given her expertise, the author considered it crucial to interview her to explore best practices for facilitation, how to integrate playful facilitation into the classroom, and effective teaching strategies for service design.

The interviewee emphasised the importance of creating a safe space where everyone feels comfortable expressing their thoughts, especially when using playful methods that might initially seem frivolous. She advised understanding participants' backgrounds, their level of English proficiency, and their expectations for the course. Additionally, she recommended tailoring the content to be relatable to the students' real-life experiences.

The interviewee also highlighted the necessity of balancing what students receive and what they contribute. This involves actively listening to students' needs and feedback. Regarding effective methods, she shared several resources but stressed that the objectives should be clearly defined before selecting a method, as this makes the choice of method more straightforward.

In conclusion the experts advise to be open to provide feedback and supervision, create a safe and comfortable environment where the students will be able to express themselves freely, and to be ready to readjust the lessons. Moreover, the teacher should practise empathy and understanding, which will be helpful when teaching students that come from diverse backgrounds, and do not have a mindset of a designer.

METHODOLOGICAL APPROACH

METHODS AND TOOLS

Apart from the reviewed literature, and the expert interviews, the author chose several methods and tools that shaped the end-solution. Those methods and tools helped to gain useful insights, define the data, ideate different solutions, prototype and visualise the ideas, and test to find ways to tailor the solution to the context and needs.

User Interviews
Research is the initial step in the design process, which can be started with user interviews. User interviews are a qualitative method where an interviewer engages in a conversation with a user from their target group in order to find out about their preferences, needs, wants, and challenges. The goal is to create empathy for the user, and find out their mental model. (IDF, 2024) The author conducted semi-structured interviews, following a premade guide, as they elicit rich user insight and allow for follow-up questions when the interviewee shares interesting insights (Stevens, 2023).

Empathy Map
An empathy map is a collaborative visual tool used to convey insights about a specific user type. It helps externalise knowledge, and information about users with two main goals: first, to build a common understanding of user needs, and second, to support informed decision-making.
Empathy maps give a detailed picture of the user's character, presenting information in a non-chronological and non-sequential manner. It offers a holistic view of the user's persona (Gibbons, 2018).

POV
The Point of View (POV) template is a tool that enables designers to identify the correct challenge to tackle during the ideation phase. To construct a POV, designers must integrate three elements: the user, their needs, and insights into those needs. By merging these aspects, designers can discern the connections and formulate a problem statement. Furthermore, the POV helps create a problem statement that is human-centred, capturing the needs of the user, while also aligning the team (Gibbons, 2019; Dam & Siang, 2017).

User Persona
Personas are fictional characters derived from user research. They represent a group of people, their needs, and goals, helping to foster empathy, engagement, and identification with various types of users in different situations throughout the design process. The benefits of using personas include achieving a clearer problem definition, and making more informed design decisions, as well as deepening empathy towards the users (Harley, 2015).

User Journey Map
A User Journey Map (UJM) is a crucial UX tool that illustrates the process a user undergoes to achieve a goal. It includes a timeline of the user's actions, emotions, thoughts, goals, expectations, and pain points. Designers may also add additional information, such as opportunities for each step.
The UJM is valuable as it constructs a narrative of the user’s actions and demonstrates to various stakeholders what occurs throughout the journey (Gibbons, 2018b).

METHODOLOGICAL APPROACH

METHODS AND TOOLS

Service Blueprint
Service blueprinting is defined as a technique used for service design, and management that involves the visual representation of the service process. This technique maps out all the components and interactions involved in service delivery, including customer actions, front-stage interactions (visible to the customer), back-stage processes (invisible to the customer), and support processes.

Service blueprinting aims to provide a comprehensive overview of the service, facilitating the identification of inefficiencies, bottlenecks, and opportunities for improvement. It is a strategic tool that helps organisations enhance service quality, improve customer experience, and drive continuous improvement in service delivery (Kostopoulos et al., 2012). Service blueprint is one of the tools that is explicitly related to service design (Bitner et al., 2008).

Motivation Matrix
A system is composed of various actors, each with distinct motivations for participating, and their collaboration is vital for its success. Clearly representing the actors' motivations, and their mutual expectations is essential. This is where a motivational matrix becomes useful, as highlighted by Morelli and Tollestrup. They describe it as a technique that visualises the functional relationships between all actors involved in a production system (Morelli & Tollestrup, 2007).

How Might We questions
How Might We (HMW) questions are insight-based, actionable questions used to support idea generation in problem-solving processes. These questions are formulated after synthesising research findings and defining specific problems to work on (Rosala, 2021). Additionally, they allow designers to reframe and open up their problem statements for efficient and targeted ideation sessions (Interaction Design Foundation, n.d.-a).

METHODOLOGICAL APPROACH

RESEARCH ANALYSES

Interviews with students - Appendix 2
Five students from the SSD course were interviewed to gather a deeper understanding of their challenges as immigrant women taking education, their thoughts on education, how their education was shaped by their cultural background, and how they feel about being able to shape their own education. The research questions, therefore, were as follows:

What do the immigrant women from ReDI school think about having an influence on their education? What is their experience with education as an immigrant woman? Are those two things shaped by their cultural background?

The hypothesis was that immigrant women, especially ones that come from countries where the patriarchal system is strong, or coming from older generations, might not be used to making decisions about their lives, specifically their education. They are used to having someone else making those decisions for them, instead. Their thoughts and experiences related to education are shaped to a high degree by their cultural background. As immigrant women, they might have a somehow negative experience with education abroad.

The interviews with the five participants provided rich insights into their experiences and perspectives on education as immigrant women. By analysing their responses collectively, it can be identified common themes and divergences in their views and experiences. The analyses were done by an AI assistant that was fed the research question, the questions from the interview guide, and the transcribed interviews.

General Opinion on Education
Value of Education: All five interviewees unanimously regard education as crucial for personal and professional growth. They see it as a pathway to better opportunities and empowerment.

Educational Experiences
Positive and Negative Experiences: Four out of five interviewees mentioned both positive and negative aspects of their educational journeys. Positive experiences include supportive learning environments and acquiring valuable skills. Negative experiences largely revolve around language barriers and cultural differences.

Preferred Educational Methods
Combination of Theoretical and Practical Learning: Four interviewees expressed a preference for a combination of theoretical and practical learning. They value interactive and hands-on approaches over purely theoretical instruction.
Flexible Learning Methods: One interviewee, while open to various methods, emphasised the importance of both online and offline learning options.

Motivations for Pursuing Education
Career Advancement and Personal Growth: All four participants were motivated by a desire to improve their career prospects and personal development. They also cited the need to integrate better into Danish society and set positive examples for their children as significant motivators.

Educational Goals
Job Readiness and Continuous Learning: All five interviewees have specific goals related to obtaining qualifications recognised in Denmark and improving their language skills. They also aim for continuous learning to keep up with industry advancements.

METHODOLOGICAL APPROACH

RESEARCH ANALYSES

Impact of Immigration on Educational Goals
Adaptation to New Systems: Three out of five participants reported that immigrating to Denmark significantly altered their educational goals. They had to adapt to a new educational system, learn a new language, and have their previous qualifications recognised. One interviewee shared that she feels like she has to prove herself all over again. Career Path Changes: One interviewee also mentioned a shift in her career path due to immigration, highlighting language barriers and the need to adapt to the local job market.

Challenges in Pursuing Education
Language and Financial Barriers: All five participants cited language barriers as a significant challenge. Financial constraints were mentioned by two interviewees as considerable obstacles.
Balancing Responsibilities: Balancing family responsibilities with educational pursuits was a common challenge for three of the interviewees.

Influence of Cultural Background
Cultural Values on Education: All participants indicated that their cultural backgrounds place a high value on education. This cultural emphasis drives their persistence and motivation.
Gender Roles: Three out of four interviewees noted that cultural expectations regarding gender roles sometimes conflicted with their educational goals. The other two interviewees said this was never an issue for them.

Perspectives on Influencing Education
Desire for Influence: All five interviewees value having a say in their education. They believe that influencing their educational paths makes learning more relevant and engaging.
Standardisation of Influence: Four out of five participants think that having the ability to influence their education should be standard practice. They argue that this approach aligns educational outcomes with students' needs and aspirations. The fight interviewee, while seeing the benefit of involving the students in the design of the curriculum, shares that it should be done only in higher education when people are more mature.

Conclusion
The combined analysis of the interviews reveals that immigrant women from ReDI School highly value education as a means of personal and professional development. They face significant challenges, such as language barriers, financial constraints, and the need to balance family responsibilities with their educational goals. Cultural backgrounds influence their views on education, emphasising its importance while sometimes imposing gender roles that need to be navigated.
All participants prefer educational methods that combine theoretical and practical learning and value having a say in their education. They believe that student influence on education should be standardised to ensure that learning is relevant and tailored to individual needs and aspirations. Despite the challenges, their strong motivation and clear goals drive them to pursue education actively and adapt to their new environments.

METHODOLOGICAL APPROACH

RESEARCH ANALYSES

5.3.2 Interview with teachers - appendix 3
Three teachers from ReDI were interviewed, two of whom have been teaching for three semesters, and one was teaching his first semester at the time of the interview. None of the teachers teach design, however, it was established that they face the same problems as the teachers who do - language barrier, and lack of engagement.

The research questions for the interviews were:
What are the difficulties that teachers from ReDI face when teaching their courses to women with status as refugees/ immigrants?
What are the difficulties that teachers from ReDI face when teaching immigrant women who have minimum to no background in the field of the course?

The hypothesis was that some of the difficulties that teachers might face are the language barriers, as well as the motivation of the students. Moreover, teaching women with limited background in the field of the course might create a lack of engagement in the lectures, students dropping out, etc.

This analysis provides insights into the difficulties faced by teachers at ReDI School when teaching immigrant women with refugee/immigrant status and minimal background in the course's field. It underscores the importance of addressing these challenges to create a more inclusive and supportive learning environment for all students. The analyses were done by an AI assistant that was fed the research question, the questions from the interview guide, and the transcribed interviews.

Difficulties Teaching Refugee/Immigrant Women:

- Language Barrier:
  - All three teachers mentioned challenges related to language barriers. Some students may have limited proficiency in English, making it difficult for them to fully understand the course material and participate in discussions.
  - Strategies used to address this included providing extra examples, visuals, and sometimes having another teacher who speaks the students' language who can assist.
- Diverse Educational Backgrounds:
  - Refugee and immigrant women often come from diverse educational backgrounds, which can affect their ability to grasp concepts at the same pace.
  - Teachers emphasised the importance of understanding each student's background and adapting teaching methods accordingly, such as providing different learning materials and offering additional support.
- Limited Access to Technology:
  - Some students may have limited access to technology or outdated devices, which can hinder their ability to participate fully in class activities.
  - Teachers expressed concerns about the disparity in technology access among students and the challenges it poses in delivering a consistent learning experience.
- Engagement and Motivation:
  - Teachers noted differences in student engagement and motivation levels, with some students being highly motivated while others may struggle with confidence or fear of making mistakes.
  - Strategies to address this included encouraging open communication, offering additional support sessions, and creating a supportive learning environment.

METHODOLOGICAL APPROACH

RESEARCH ANALYSES

Difficulties Teaching Women with Minimal Background in Course Field:

- Zero Knowledge Assumption:
  - The curriculum is designed to start from zero knowledge of the course subject, assuming no prior experience or background in the field.
  - Teachers emphasised the need to provide foundational knowledge and support to ensure all students can follow along, regardless of their background.
- Varied Learning Styles:
  - Students may have different learning styles, preferences, and abilities, requiring teachers to adapt their teaching methods accordingly.
  - Strategies mentioned included providing diverse learning materials (e.g., presentations, readings, videos) and offering additional support sessions for students with questions or challenges.
- Dropout Rates:
  - Teachers observed higher dropout rates in some semesters, which they attributed to various factors such as lack of commitment, mismatched expectations, and limited interview processes for student selection.
  - Addressing dropout rates requires ongoing evaluation of the selection process, clearer communication of expectations, and providing adequate support to ensure students remain engaged and motivated.

Overall Analysis:

- The interviews highlighted the complex challenges faced by teachers when teaching immigrant women at ReDI School, including language barriers, diverse educational backgrounds, limited access to technology, engagement and motivation issues, and high dropout rates.
- Teachers employ various strategies to address these challenges, such as adapting teaching methods, providing additional support, fostering open communication, and evaluating the selection process for students.
- There is a need for continuous improvement and refinement of teaching practices to better support immigrant women in their learning journey at ReDI School.

PROBLEM STATEMENT

Taking into consideration the reviewed literature, the expert interviews, and the stakeholder interviews, the research question that the thesis is investigating is as follows:

How might service design principles be leveraged to create a teaching guide tailored to the specific needs of non-EU immigrant women, considering their complex roles as immigrants, women, and mothers, by incorporating a participatory design approach and empathy?

Underrepresented and marginalised group with intricate roles

Holistic-view design process to see connections, design touchpoints, and consider all stakeholders

Co-designed by students and teachers teaching guide adaptive to the needs of the students

How might **service design principles** be leveraged to create a **teaching guide** tailored to the specific needs of non-EU **immigrant women**, considering their complex roles as immigrants, women, and mothers, by incorporating a **participatory design approach** and **empathy**?

Involving all stakeholders for loser and better tailoring of the solution

Empathic approach to be able to see the world from the user's eyes

PROCESS

DEVELOPMENT

PROCESS DEVELOPMENT

The following chapter introduces the reader to the development of the design process that the author undertook. Employing Design Thinking as the methodological framework, the chapter presents the process in its authentic, non-linear progression.

Furthermore, the author engaged in the design experiment (SSD Course) alongside a significant portion of the design process. For improved clarity in comprehension, the case study will be presented subsequent to the chapter on process development.

EMPATHISE - CURRICULUM WORKSHOP & STUDENTS' INTERVIEWS

To start the project, the author needed to gain insights into the course participants' problems, level of design knowledge, and needs. Therefore, the project began with an empathise stage, which was split into two parts: a Curriculum Development workshop and one-on-one user interviews. Empathy was a crucial aspect of the participatory design approach used in this project (Ho et al., 2011). To deeply understand the students' needs and experiences, as well as their design knowledge and any questions they had about the course, the author organised and facilitated a Curriculum Development workshop where participants co-designed the curriculum.

The objectives for this workshop were:

- Objective 1: to understand what qualities they need or are lacking to get where they want to be. Where do they want to be? What is their goal?
- Objective 2: to understand what types of personalities they have in order to group them in a better way.
- Objective 3: to understand their preferred learning style

Why: learning what their skills are, and what they want to learn, helps design the curriculum by including theory and exercises that will bridge the gap.

Five out of the initial twelve course participants showed up to the workshop, out of which four had taken a UX Design course by ReDI. The workshop started with an icebreaker called My Career Plan where the participants had to present themselves with their professional background, their related passions, and what they have expertise in. The goal of this was to set their minds into thinking about their professional skills and knowledge, and set the theme of the workshop.

The first exercise was about guessing the job position - the participants were given different job ads - UX Designer, Service Designer, Senior UX Designer, and UX/UI Designer. Their task was to circle all the skills they had, the skills they did not have but want to have related to the job titles from the icebreaker, and then try and guess the name of the job position. The results were that the participants lack methodological skills, cannot lead a design project from start to finish, lack communication and presentation skills, do not know how to use UX research processes, are not skilled in structuring and visualising data, and cannot tackle ambiguous problems, amongst others.

The third exercise was about each of them choosing one of the skills they had and teaching it to their groupmate. The goal of this exercise was to see what teaching method they would choose in a short time frame, and if their groupmate would understand. The exercise was followed by a group discussion, sharing what and how they taught, and giving feedback to each other.

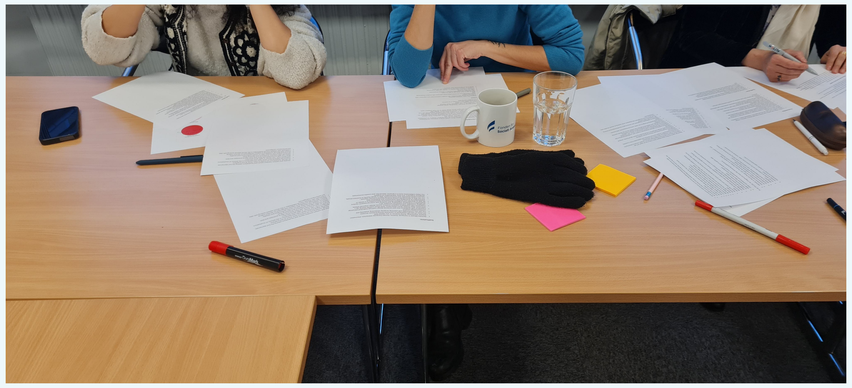
PROCESS DEVELOPMENT

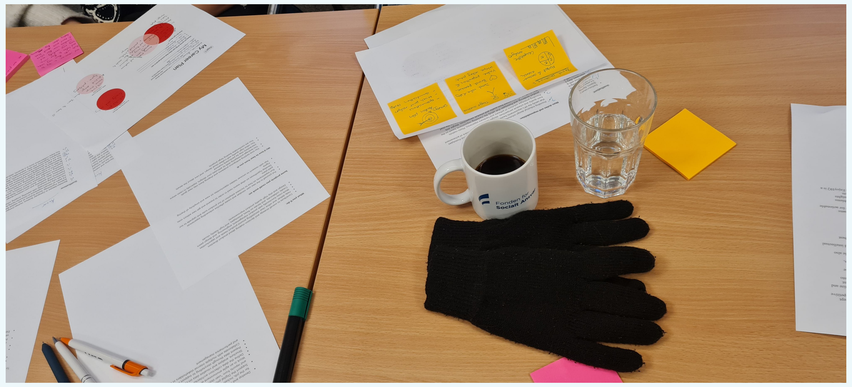
EMPATHISE - CURRICULUM WORKSHOP & STUDENTS' INTERVIEWS

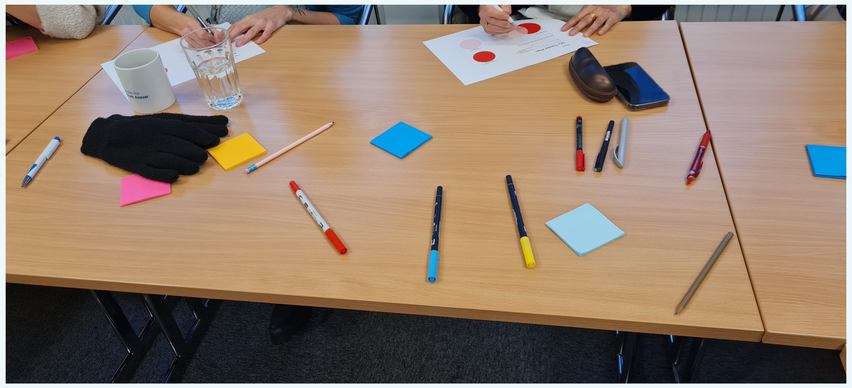
The workshop concluded with a feedback session in which participants expressed that the workshop was very well organised, and the facilitator was attentive to their needs, ensuring their comfort. This was followed by a Q&A session where participants inquired further about the course details, including the timeline and upcoming tasks.

For the second part of the empathise stage, the author invited the participants for one-on-one user interviews with the goal of investigating the following research question:
What do the immigrant women from ReDI school think about having an influence on their education? What is their experience with education as an immigrant woman? Are those two things shaped by their cultural background?

The main takeaways from the interviews were that the immigrant women from ReDI School highly prioritise education for personal and professional growth, facing obstacles like language barriers and financial limitations. Balancing family duties with educational pursuits is a challenge, influenced by cultural norms that both value education and impose gender roles. They prefer learning methods blending theory and practice, and advocate for standardised student involvement in education to personalise learning. Despite difficulties, their motivation and goals propel them to actively pursue education and adapt to new environments.



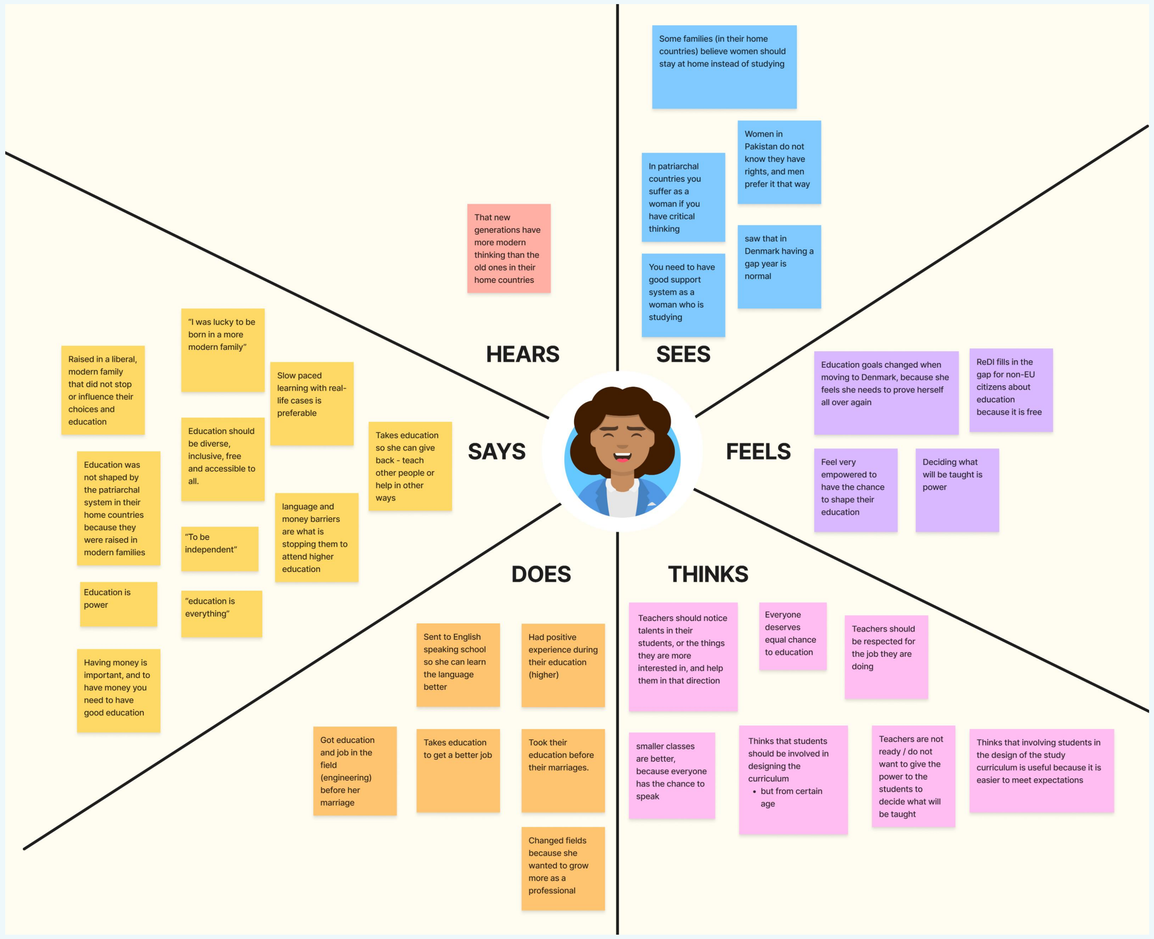




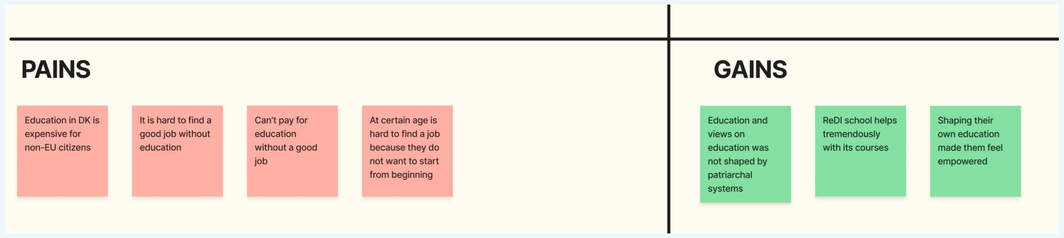
PROCESS DEVELOPMENT

DEFINE - PERSONA, EMPATHY MAP & FRAMING THE CURRICULUM

After the first round of Empathise, through the analysis of the interviews, an empathy map was created in order to synthesise the data. The empathy map provided a holistic understanding of who the user is.

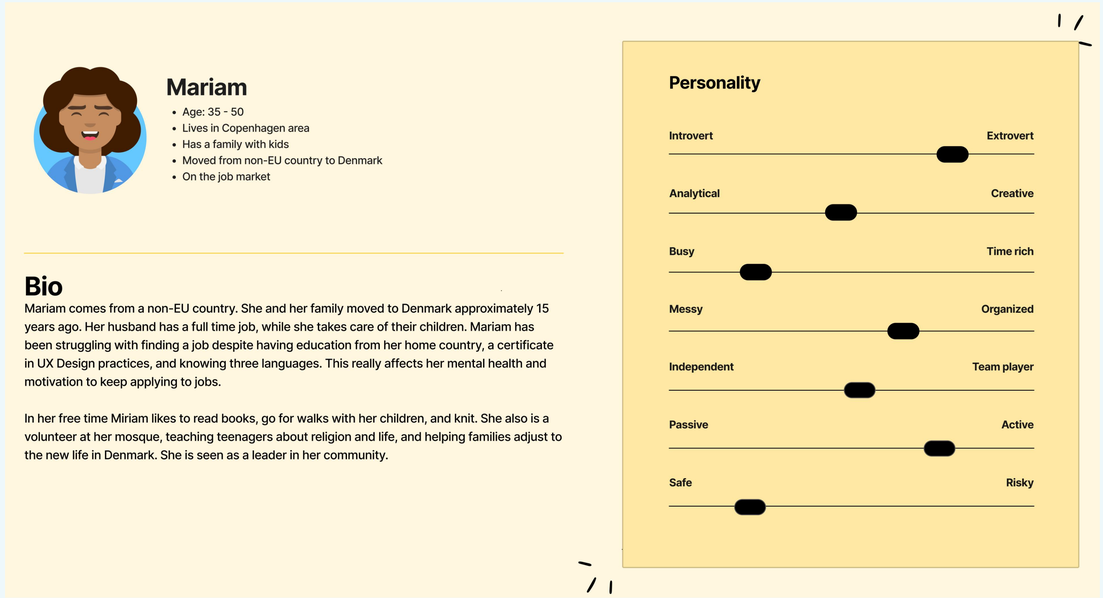


By summarising the empathy map, the user's pains and gains were identified (as illustrated in the figure below). This understanding allowed the author to pinpoint areas where she could meet the user's needs and expectations.



Afterwards, a persona based on the user interviews and informal conversations with the students was created to deepen the empathy towards them, as well as to visualise the complexity of the course participants' backgrounds and roles.

All materials can be found in the Appendix.



Mariam

- Age: 35 - 50
- Lives in Copenhagen area
- Has a family with kids
- Moved from non-EU country to Denmark
- On the job market

Bio

Mariam comes from a non-EU country. She and her family moved to Denmark approximately 15 years ago. Her husband has a full time job, while she takes care of their children. Mariam has been struggling with finding a job despite having education from her home country, a certificate in UX Design practices, and knowing three languages. This really affects her mental health and motivation to keep applying to jobs.

In her free time Miriam likes to read books, go for walks with her children, and knit. She also is a volunteer at her mosque, teaching teenagers about religion and life, and helping families adjust to the new life in Denmark. She is seen as a leader in her community.

Personality

Introvert	Extrovert
Analytical	Creative
Busy	Time rich
Messy	Organized
Independent	Team player
Passive	Active
Safe	Risky

PROCESS DEVELOPMENT

DEFINE - PERSONA, EMPATHY MAP & FRAMING THE CURRICULUM

Shaping the curriculum
As the next step in the Define stage, the author used the guide from the book Making Meaning, Making Change by (Auerbach, 1992/1992, pp. 14–15) to define the curriculum and the objectives of the course by following the questions provided by Auerbach. Only the relevant for the course questions were answered, the full guide can be found in Appendix 4.

1. What are the goals of the program? - the goal of the course is for the students to acquire knowledge about the principles, methods, and skills required to design and improve services. They should have a basic understanding of the various aspects of service design, including the nature and characteristics of services, user interaction, design methodology, and the integration of different disciplines, perspectives, and stakeholders. Additionally, at the end of the course, the students should have skills in problem-solving, collaboration, and communication. The goal is to have a mindset of empathy, and iterative problem-solving, as well as being able to navigate the complexities of multi-stakeholder projects.

- What would count as success? - if the students know what service design is, know how to and are able to use and implement the different methods, have methodological skills and can implement them, can work on projects that require holistic view and management of stakeholders, and can solve a problem using a designerly approach.
- What are the teacher's hopes for the students? - for the students to feel empowered by being included in the designing of the curriculum, to have created a design mindset, to be able to recognise when to use the methods and tools in their toolbox, as well as recognise when and how to tweak them according to the problem.
- What are the students' hopes for themselves? - to learn what service design is, and land a job in the field, as well as enrich their portfolio and be able to design multi-stakeholder services and incorporate different methods, tools, and theories associated with service design.

2. How is a needs assessment done? - through online feedback forms, which include five questions: 1) What should we stop doing?; 2) what should we continue doing?; 3) What should we start doing?; 4) Was there anything you that you found difficult to understand?; 5) How did you feel during this lecture, and why?

- Who does it? - the teacher facilitates by using the above-mentioned methods, and the students take an active part by sharing.
- When is it done? - After every lecture in the form of an online anonymous feedback form.
- On what basis are students placed in classes? - they are screened by ReDI, and accepted if they have good English proficiency to be able to understand the class.

3. How is the content of your curriculum determined? - the curriculum is determined by both teacher and students, who engage in participatory design activities to design it.

- Who decides what is to be covered? - the teacher(s); in this course, as there was only one teacher it was her responsibility to make all decisions.
- What is the organising principle of the curriculum (grammar? competencies? survival topics? situations?) - the organisational principles for this course are competencies - students will learn service design methods, tools, and skills to be able to design a service; and situations - the teaching approach is problem-based learning where the students will be given a problem to solve through a design process.

PROCESS DEVELOPMENT

DEFINE - PERSONA, EMPATHY MAP & FRAMING THE CURRICULUM

- On what basis are topics and competencies chosen? - based on the reviewed literature, Curriculum Workshop findings, and the provided lectures from the 1st semester of the Service Systems Design master's programme.
- When is curriculum content determined? - before the course starts, however, changes occur if the circumstances require it. Such circumstances can be a slower level of learning due to various reasons, the misalignment between the expectations of teachers and students, family problems, or other challenges that the students may face.
- What is the role of each of the following in deciding the content and shaping the syllabus: funders, administrators, teachers, and students? - funders and administrators do not have any say in the shaping of the syllabus. The teacher and the students co-designed the curriculum together through a participatory design approach, which was done for this course.

4. How are classroom processes, activities, and materials determined? - materials are determined by the teacher, however processes and activities are co-designed between the teacher and the students. Processes and activities are determined based on the preferred learning styles of the students.

- Who decides what students will do and how they will do it? - the teacher decides based on user research, which involves the level of knowledge of the students, and their preferred learning style.
- What kinds of materials and activities are used? - both paper materials, and online tools were used, the activities were both individual and group activities, balancing the learning objectives. The goal of the teacher was to teach the course participants to work in groups, as this is a standard on the job market. However, to be able to give personal assessment and feedback, the teacher also gave individual exercises and homework.
- How are they selected or designed? - they are selected based on the expert interviews' feedback, the literature review, and the curriculum workshop, as well as following the experience of the teacher with service design projects, taking inspiration from her classes during the first semester of her master's programme.
- When are they chosen? How are lessons planned? - the overall structure of the lectures was designed before the course started, with the first four lectures fully planned. However, the rest of the lectures were planned a week before their corresponding class to allow the author to adjust the content to the needs of her students.
- Is instruction mainly individual, small group, or whole group? - instruction is only done with the whole class, however the groups can book supervision time where they can ask questions and get feedback
- What does the teacher do if the class gets side-tracked from the plan? - depending on the extent of the deviation, the teacher can adopt different strategies. If the deviation is of a bigger magnitude, the teacher would readjust the curriculum to the circumstances by trying to keep the basics. If the deviation is of a smaller magnitude, the teacher would discuss with the students to make the decision, depending on the problem that is side-tracking the plan.

PROCESS DEVELOPMENT

DEFINE - PERSONA, EMPATHY MAP & FRAMING THE CURRICULUM

5. What is the teacher's role in the classroom? - is one of an educator, mentor, and facilitator.

- What does the teacher do before, during, and after class? - before the class, the teacher prepares the materials (presentation, exercise materials etc) needed for the class; during the class, the teacher presents the material, supervises the exercises, and gives feedback; after the class, the teacher is available for supervision meetings.
- How do the students view the teacher's role? - as a mentor.
- What does the teacher do about problems in class? - if the problem is a group problem, the teacher mediates a meeting and tries to find a middle ground for the groupmates to work the problem out. If the problem is individual, the teacher provides guidance and help. If the problem concerns the whole class, the teacher facilitates a discussion by using methods and tools to create a safe environment where everyone can freely share their concerns.

6. What is the students' role in the classroom? - their role is one of active participants, collaborator, and providing feedback.

- To what extent do students decide how and what the class will study? - the students do not have decisional power on how the class will be taught, they can only share their preferred learning styles, as well as take a VARK test, from which the teacher will derive the best option and use it during the course. As to what the class will study, the students participate in workshops which are aimed to find out what knowledge, and which skills they are lacking in order to be included in the study curriculum.
- To what extent do they select or create materials? - while the students have the power to share their preferences, the final decision is taken by the teacher. This is due to the fact that the teacher has more experience in the field. However, this decision is heavily based on the feedback and data provided by the students.

7. How are the outcomes determined?

- What kinds of outcomes are considered important? - outcomes deemed as important are the level of understanding of service design principles, and state-of-the-art methods and tools, and if the student knows how to implement them in different situations.
- Who decides what possible/acceptable outcomes are? - the teacher.
- How is evaluation (individual, class, mid-program) done? - Evaluation is done once every four to five weeks in the form of status presentations. The last lecture is used as an exam-like situation, where each group presents their final solution and their process. This is followed by a discussion in which the teacher poses questions to ensure that the material has been comprehended.

PROCESS DEVELOPMENT

DEFINE - PERSONA, EMPATHY MAP & FRAMING THE CURRICULUM

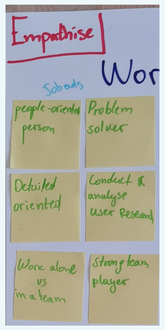
The answers served as a guide throughout the course, and in times of uncertainty, the author referred to them. Furthermore, using this guide and the literature review, the author set the following objectives for a successful compilation of the course:

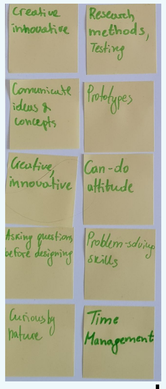
- Understands and reflects upon the main theories, methods and tools related to the design of a service.
- Understands and can critically reflect upon theories design thinking.
- Understands the characteristics and principles of services and the way they are organised, developed, and represented.
- Has capabilities to engage with users and support their participation and involvement in services.
- Applies appropriate methods and tools to support the design of services.



The last part of this Define stage consisted of analysing the findings from the workshop, and deciding which skills to be included in the curriculum. As it can be seen on the photo, on the left side with green are the skills the participants already have. On the right side with red are the skills that the participants circled as lacking.

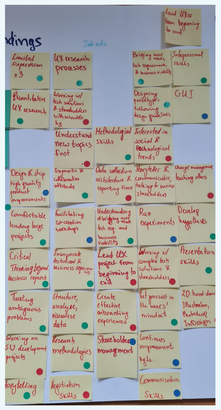


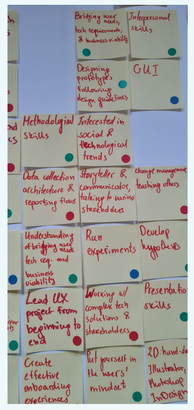


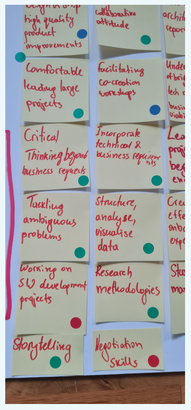


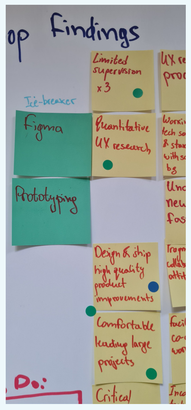


Afterwards, the similar findings were grouped. The author subsequently employed components of the Dot-voting technique to determine the skills to incorporate into the course curriculum. Skills marked with a green dot were selected, due to their relevance to the field; post-it notes marked with a blue dot were considered desirable but not essential, as the lecture content could be comprehensive without them; and skills marked with a red dot were deemed outside the author's expertise to teach or irrelevant to the course.









PROCESS DEVELOPMENT

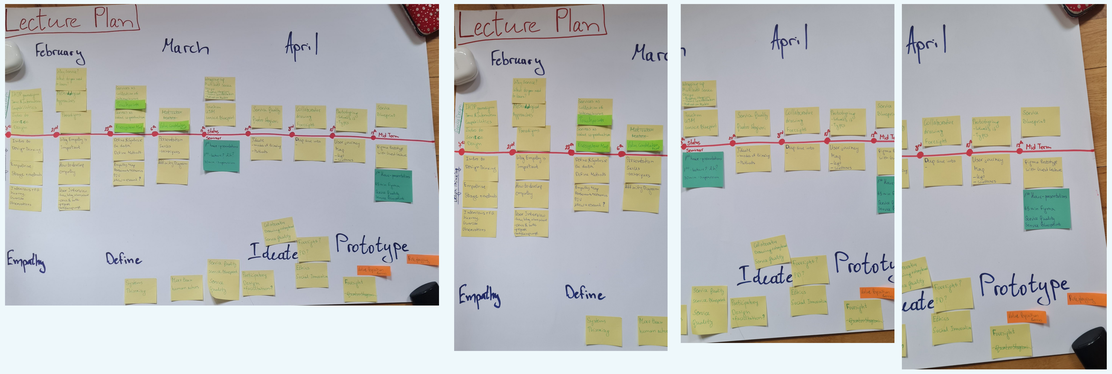
DEFINE - PERSONA, EMPATHY MAP & FRAMING THE CURRICULUM

Utilising insights gained from the literature review, such as that teaching service design involves cultivating skills in problem-solving, facilitation, collaboration, and communication (De Götzen et al., 2014), and user research, the author constructed a chronological framework outlining the progression of the lectures, following the structure of the five stages of design thinking - empathise, define, ideate, prototype, and test. At first, the author designed only the first four lectures by including service design theory and exercises that followed the progression of her first semester in the service design master's programme. This decision was made as the author wanted to try the structure of the lectures with the course participants, gain their feedback, and adjust the aspects that did not satisfy her class accordingly. Additionally, the choice of following the lectures from her first semester was made since, as discussed in the literature review, the first semester was structured as an introduction to service design (De Götzen et al., 2014). The author used the literature provided for the Designing Product Service Systems course (one of the teaching modules) and the associated lectures to structure the classes. To make the lectures' content even more beginner-friendly, the author excluded the parts which were deemed as supplementary. Some of the content that was excluded was:

- Paradigms in history - irrelevant for the course to go deeper into this topic than only explaining the definition of paradigms
- Infrastructuring - based on the experience of the author from her previous semester projects, a service can be designed without this knowledge
- Design at different logical levels - was only briefly explained

The first four lectures included: 1) Intro to Service Systems Design, Intro to Design Thinking, Empathise Methods; 2) Diving into Service Design, paradigms. Learning how to be empathic through user interviews; 3) Services as a collection of interactions, and service as value co-production part 1; 4) Services as a collection of interactions, and service as value co-production part 2. The rest of the lectures were planned a week before their corresponding class, as this allowed the author to adjust the exercises and content to the needs of the students, as well as include them in the decision-making regarding what type of exercises they preferred, and sometimes which methods they would rather learn about.

The completed timeline can be seen on the photos:



Highlighting again that the lectures were designed a week before their corresponding classes, and the iterative process can be seen at the bottom of the timeline. The post-it notes with themes that did not make it into the lecture plan are left underneath the timeline. Furthermore, the last 3 lectures are not included in this timeline, as the author was pressed by time constraints.

PROCESS DEVELOPMENT

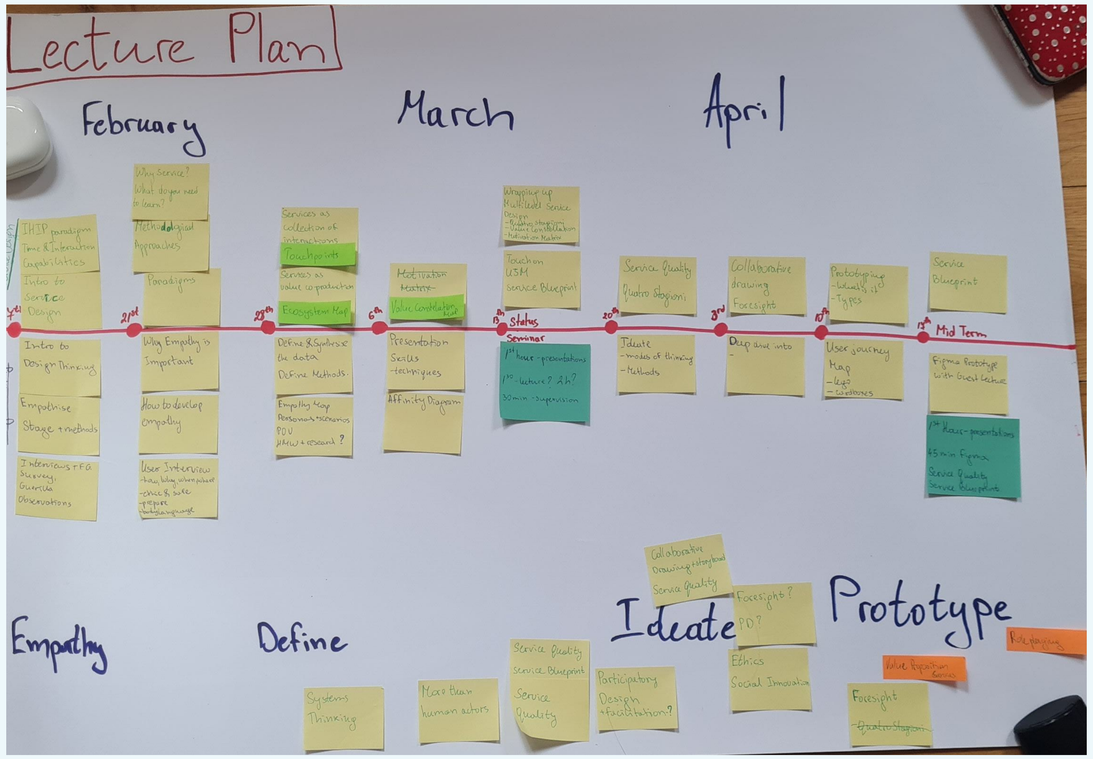
DEFINE - PERSONA, EMPATHY MAP & FRAMING THE CURRICULUM

Furthermore, this timeline adhered to the principles of design thinking methodology, which was selected as the overarching project management framework to be taught to the students. Design thinking was chosen over other methodologies, as the author is certified in its practices by Interaction Design Foundation (Interaction Design Foundation, 2021).

Given the course's twelve-week duration, each stage of the timeline comprised two lectures, with the last session designated for the students presenting their final solution, and a short informal conversation. Additionally, one lecture was dedicated to a guest lecturer, who was decided upon later in the process based on the needs of the class.

Every lecture was structured similarly, splitting the time evenly between a lecture and supervised group work. For each lecture, the students had to read mandatory literature which prepared them for the content of the class. Moreover, from her experience as a student, the author incorporated the question “What did you learn from the literature” which she found to be beneficial in motivating students to prepare for the class.

Lastly, the format of the course included a dedicated time for status presentations every four weeks. The goal of this was for the students to present the status of their projects, and get feedback both from the author and from their fellow students. Additionally, the author, based on the advice from the expert interviews, dedicated supervision time for an hour after each lecture, where each group could book her for a set amount of time. To foster a safe environment and show dedication to the students, the author was also available online on Thursdays and Fridays for any inquiries.



PROCESS DEVELOPMENT

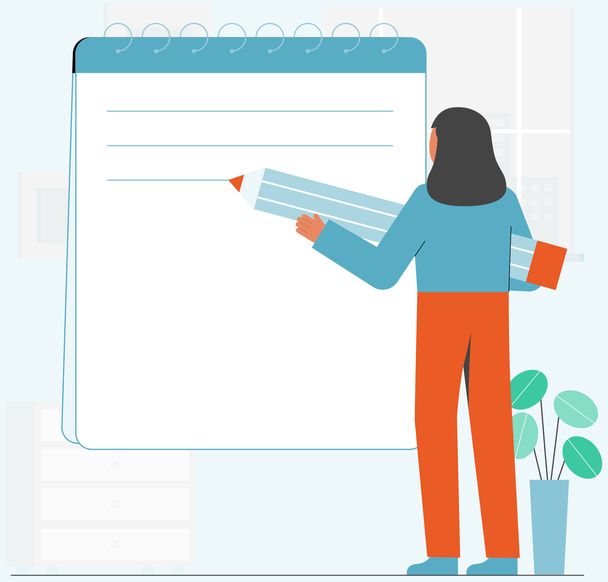
EMPATHISE - ESSAYS & CONCERNS MEETING

From this stage onward, the design experiment - the SSD course, began, therefore some of the insights were gained during some of the lectures. The next chapter, called Case Study, will present in detail the activities done during the course, and showcase how the gathered data and knowledge from the research and literature review was implemented. However, it is important to keep in mind that the teaching course was running simultaneously with the design process for this thesis.

The next step of the process was to investigate how the students perceived a service at the beginning of the course. As the objectives of this course are for students to have a basic understanding of what a service is, its principles, components, and how to manage multi-stakeholder projects, the author decided to give homework to the students. Their task was to write an essay on the following four questions:

- How do you understand the concept of a service?
- Who is delivering a service?
- Give an example of a service from your home country, and the same service here. What are the similarities and what are the differences?
- What is something related to service that you did not understand or you took for granted before moving to Denmark?

The goal of this task was to see the students' reflections, and find if there are any cultural differences between services in their home country and in Denmark. By reflecting on the concept of a service, the author hoped that the students would start understanding its complexity, as well as the culture of a service. Additionally, the author wanted to derive which aspects might be most important to teach to students who have no knowledge of service design, and therefore highlight them during the lectures. Asking them the second question had the goal of making them reflect on the multifaceted discipline that service design is, and start taking into consideration more than only the end-user. The last question aimed to make them consider aspects of services that they can include in their own projects. People often take for granted things that are met daily, but by making them aware, they can incorporate the noticed aspects in their solutions, or take inspiration.



PROCESS DEVELOPMENT

EMPATHISE - ESSAYS & CONCERNS MEETING

Main Takeaways:

1. Understanding the Concept of a Service:
    - Services are seen as intangible experiences involving multiple stakeholders and touchpoints.
    - The focus is on creating value for users through a holistic, user-centred approach.
2. Who Delivers a Service:
    - Service delivery involves a collective effort from various stakeholders, including direct providers, support staff, and broader systemic actors.
    - Multiple entities such as businesses, government agencies, and nonprofits are involved in service delivery.
3. Examples of Services from Home Country vs. Denmark:
    - Common examples include café services, healthcare, public transportation, online shopping, and fast food.
    - Similarities include the core service goals, while differences often lie in efficiency, technological advancement, and customer interaction methods.
4. Taken-for-Granted Aspects:
    - Participants commonly took for granted the efficiency, customer service friendliness, and ease of access to services in Denmark compared to their home countries.

Conclusion

The essays collectively underscore the importance of service design as a holistic and user-centred discipline. Understanding that services are complex, involving numerous stakeholders and processes, is crucial for improving service delivery. Each participant highlighted how services differ between their home countries and Denmark, emphasising the variations in efficiency, customer experience, and technological integration. The common theme is the realisation that aspects of service delivery that are efficient and customer-friendly in Denmark were often taken for granted, showcasing the importance of empathy, co-creation, and continuous improvement in service design.
All essays can be found in Appendix 5.

With the results, the author derived which aspects of the service to emphasise during lectures - considering the different roles and motivations of the stakeholders, designing “delights” to differentiate their service from the competitors’ service, and creating value for all stakeholders, not only for the end-user.

PROCESS DEVELOPMENT

EMPATHISE - ESSAYS & CONCERNS MEETING

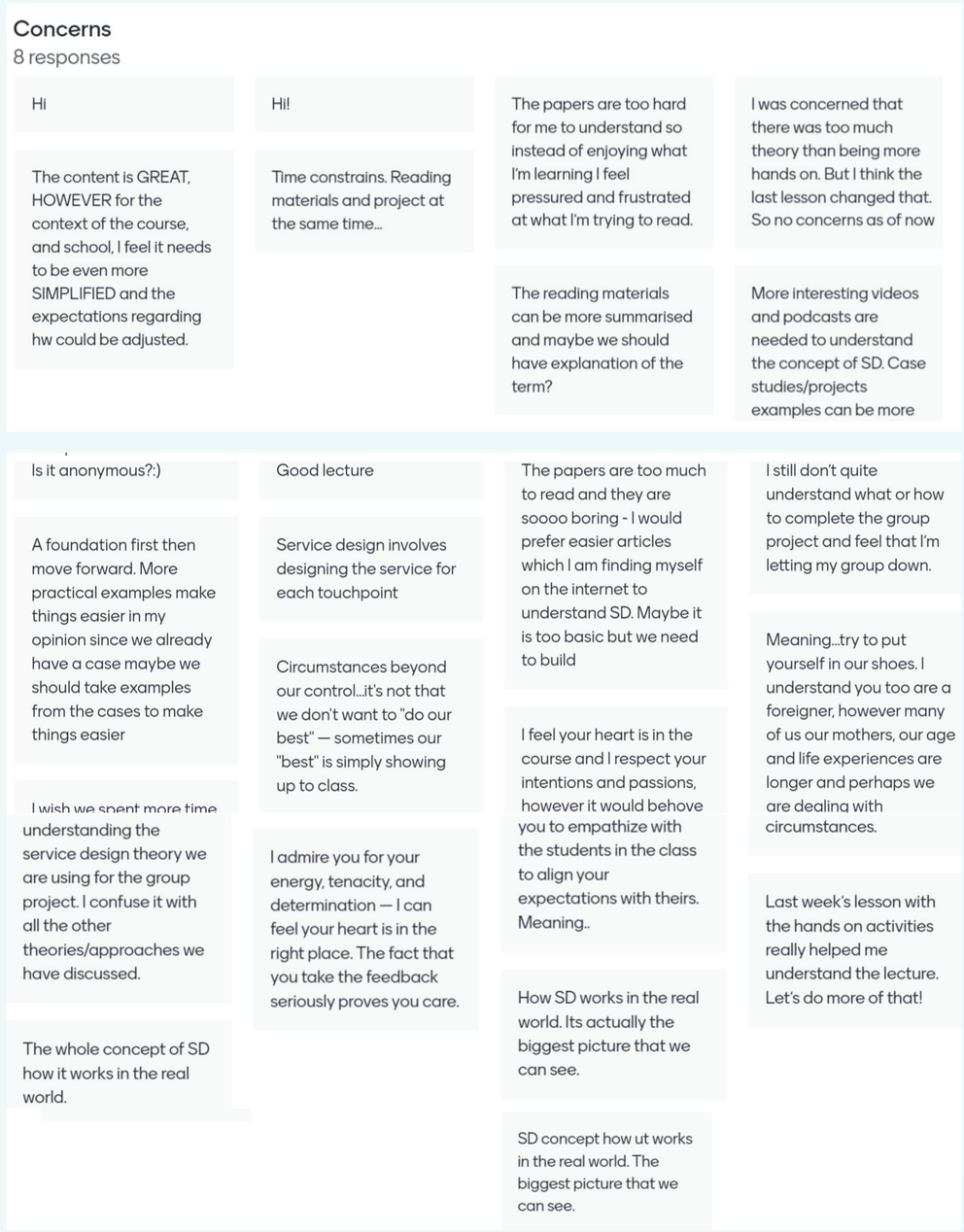
Concerns Discussion
Based on the data gathered through the weekly feedback forms, the author decided to have a “Concerns” discussion, as the students had concerns that needed to be addressed.

To create a safe space for the students to share their challenges and problems, the author used the online platform Menti. The students anonymously sent their concerns, which were displayed on a dashboard. Afterwards, the author facilitated a discussion, addressing the different concerns, answering the questions, and finding a middle ground.

The main concern that the students shared was regarding the papers they had to read to prepare for the classes - they were too hard to understand, and the time was not enough to read two papers, and work on the group project. The compromise that was agreed upon was to have only one paper to read, and whenever possible to provide easier literature.

The other concern was that there was too much theory and not enough practice. However, the author clarified that going forward, there will be more practical and hands-on exercises, and that the theoretical part needed to be covered first.

The last concern was about having a more empathetic approach towards the students, as they are mothers first. This issue was addressed by reassuring the women that if they needed to bring their children to class, it would not be an issue. The option to stay home and join online due to family reasons was agreed upon.



PROCESS DEVELOPMENT

DEFINE - POV & PROBLEM STATEMENT

Based on the gathered data from the user interviews and the concerns discussion, the author created a Point of View, using the template from Interaction Design Foundation (Dam & Siang, 2017) by extracting the most valuable information.

User	Needs	Insights
A middle-aged, non-EU, immigrant woman, who lives in Denmark	NEEDS free education that will help her find a well-paid job. NEEDS to be able to shape her own education NEEDS easier to understand literature materials NEEDS her role as a mother to be considered more NEEDS more hands-on exercises to grasp the theory	The SSD course participants are looking for a well-paid job, and hope that by taking the course they can land one. Moreover, their role as mothers needs to be better integrated in the course, as this is their prime priority. Additionally, to be able to understand the theoretical part, the student needs more practice and hands-on exercises. Lastly, the provided literature is too hard to understand for a beginner, so they need literature more suited for their level.

This led to the following POV statement:

Middle-aged, non-EU immigrant women residing in Denmark seek free education tailored to secure well-paid jobs. They aspire to shape their own learning journey while ensuring their roles as mothers are acknowledged. To comprehend theoretical concepts, they require hands-on exercises, alongside literature materials adapted to their proficiency level.

PROCESS DEVELOPMENT

EMPATHISE - TEACHERS INTERVIEWS, REDI STAFF CONVERSATIONS

The next step of the design process was to empathise with the teachers from ReDI to gain more insight into their challenges. Therefore, three interviews were conducted with the research questions being:

What are the difficulties that teachers from ReDI face when teaching immigrant women who have minimum to no background in the field of the course?

The main takeaways from the interviews were that the complex challenges faced by teachers when teaching immigrant women at ReDI School are language barriers, diverse educational backgrounds, limited access to technology, engagement and motivation issues, and high dropout rates. Teachers employ various strategies to address these challenges, such as adapting teaching methods, providing additional support, fostering open communication, and evaluating the selection process for students. There is a need for continuous improvement and refinement of teaching practices to better support immigrant women in their learning journey at ReDI School.

Additionally, the author also had unstructured interviews, utilising an informal conversational approach, with two of the main ReDI employees whose work is directly connected with the teachers and students.

One of the interviewees is responsible for managing volunteers in Copenhagen, including recruiting and motivating volunteer teachers and career coaches. He ensures they have the necessary support and resources to effectively teach tech courses and assist students with career development goals. This conversation aimed to find out the process behind hiring teachers, and what the criteria are.

The interviewee shared that the recruitment process for new teachers is relatively easy, with many people on the waiting list. He uses the ReDI website for sign-ups and occasionally reaches out to people in specific fields, such as UI design, to find potential teachers. He assesses applications based on the current need for teachers, reviews their LinkedIn profiles, and conducts online meetings to discuss the school's mission and the applicant's experience. The selection process is largely based on gut feeling and the applicant's passion for the cause, and there are no formal criteria to be followed. Lastly, the author found out that the curriculums for the courses were developed when ReDI was first founded in Copenhagen, and are rarely updated.

The other conversation was with the Career Program Manager, who oversees all ten tech courses, as well as plans all career activities with corporate partners, community management, and team lead. The main challenges that she faces are resources, and different stakeholders, that have different needs and interests, as well as navigating through stakeholder analysis.

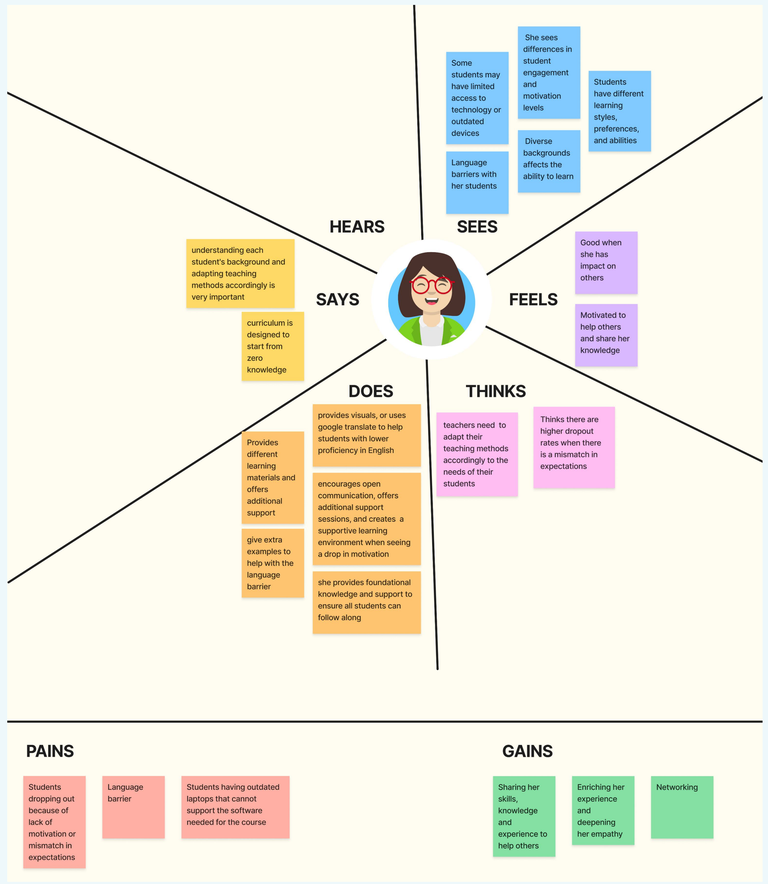
The full analyses can be found in Appendix 6.

The collected data was crucial for comprehending the intricate dynamics within ReDI School and understanding how the service's backstage actors work.

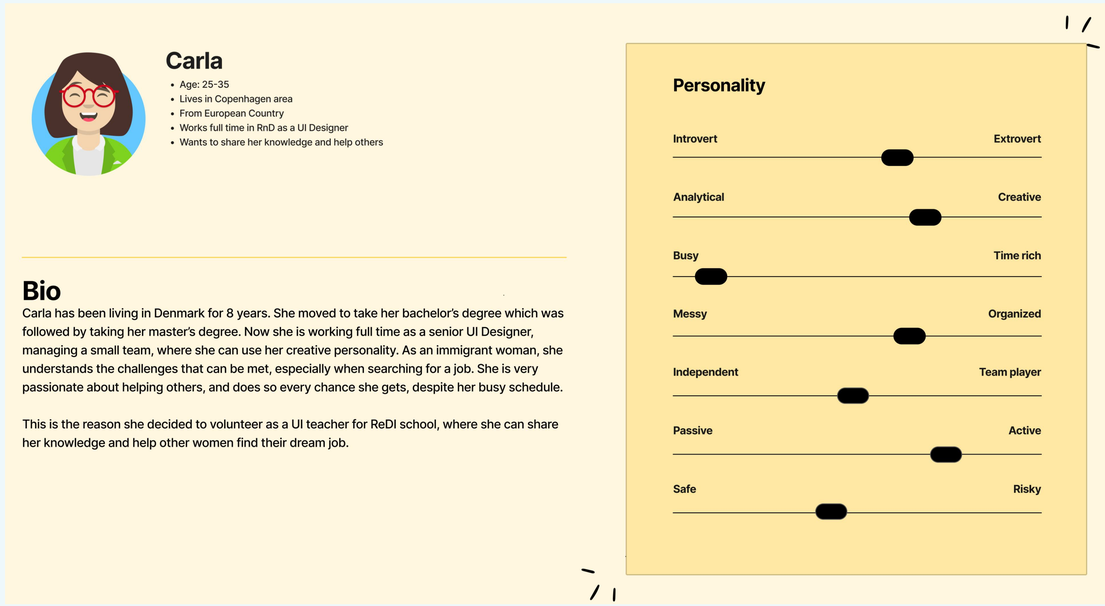
PROCESS DEVELOPMENT

DEFINE - TEACHERS EMPATHY MAP & PERSONA

The data from teacher interviews was used to create an empathy map. This map serves as a bridge to better understand teachers and their challenges. By examining what teachers say, think, feel, and do, as well as their pain points and gains, the map provides insights to inform decisions and initiatives to support teachers. Creating the empathy map demonstrates a commitment to understanding the teacher experience in order to drive positive change in education



Teachers, as key stakeholders in ReDI's courses with diverse backgrounds, are represented through a user persona. This persona encapsulates their characteristics, needs, and motivations, fostering empathy and informing course development to meet their unique requirements.



PROCESS DEVELOPMENT

EMPATHISE - WANTS, NEEDS, BARRIERS, AND CHALLENGES

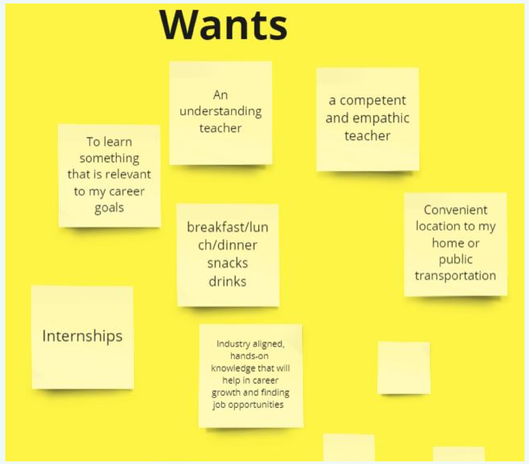
Throughout the lectures, it became clear that to better shape the research question, and thereafter tailor the teaching guide more closely, the author had to gain deeper insights into the individual wants, needs, barriers, and challenges that the students have.

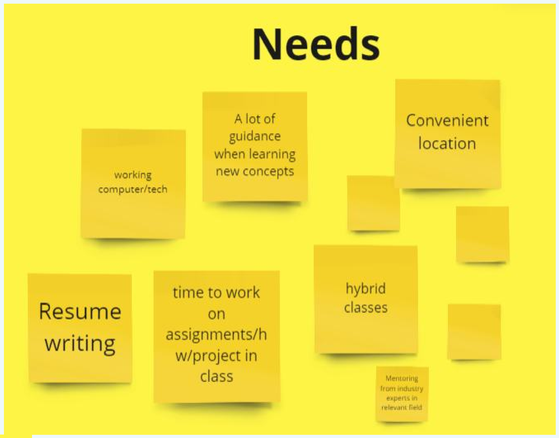
To achieve this, the author made use of the online platform Miro, where a section for each topic was created. The students then had to individually write about the various aspects they want the course to provide to them, the needs they have related to the course, the barriers that were stopping their successful learning process, and the challenges that were stopping them from achieving their goals related to the course.

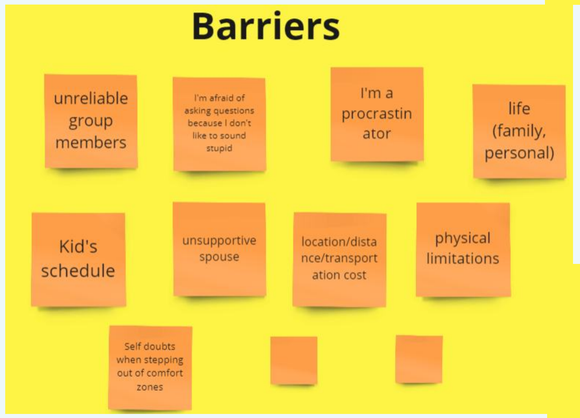
Some of the barriers and challenges that the students face when attending a course from ReDI are unsupportive spouses, children's schedules, other family matters, understanding literature and/or class material, time management (no time for group work), and self-doubt.

The wants the students shared are an understanding teacher, a convenient location to my home or public transportation, included food, industry-aligned, hands-on knowledge that will help in career growth and finding job opportunities, a competent and empathic teacher, and others.

Their needs include a convenient location, mentoring from industry experts in the relevant field, a lot of guidance when learning new concepts, and others.









PROCESS DEVELOPMENT

DEFINE - UPDATED POV AND PROBLEM STATEMENT

Based on the gathered data from the previous empathise stage, the author updated the Point Of View to include the relevant new data. The updated POV is as follows:

User	Needs	Insights
A middle-aged, non-EU, immigrant woman, who lives in Denmark	NEEDS free education that will help her find a well-paid job. NEEDS to be able to shape her own education NEEDS easier to understand literature materials NEEDS her role as a mother to be considered more NEEDS more hands-on exercises to grasp the theory NEEDS an understanding and empathic teacher NEEDS a convenient location and food provided during hte course NEEDS guidance during the project	The SSD course participants are looking for a well-paid job, and hope that by taking the course they can land one. Moreover, their role as mothers needs to be better integrated in the course, as this is their prime priority. Additionally, to be able to understand the theoretical part, the student needs more practice and hands-on exercises. The provided literature is too hard to understand for a beginner, so they need literature more suited for their level. The user benefits from an understanding and empathic teacher which can provide guidance as it is a new topic for them. Lastly, a convenient location and provided food will help the student.

This led to the following POV statement:

A middle-aged, non-EU immigrant woman residing in Denmark, needs access to free education to enhance her job opportunities, necessitates a comprehensive support system. This includes personalised practical exercises to reinforce theoretical learning, compassionate guidance from understanding teachers who acknowledge her dual roles as a mother and student, simplified literature materials tailored to her level of comprehension, consideration for her responsibilities as a caregiver, and access to convenient facilities such as a suitable location with provided meals.

PROCESS DEVELOPMENT

IDEATE - HOW MIGHT WE QUESTIONS

Subsequently, the author brainstormed a series of How Might We questions based on the findings obtained thus far. Although it is a common practice to start the ideation stage by thinking divergently, generating a wide variety of ideas and exploring many possible solutions (Kim & Pierce, 2013), the author opted to deviate from the norm and start with convergent thinking. This decision was made after the implementation of the Wants-Needs-Barriers-Challenges exercise, serving as the preliminary divergent stage. The feedback obtained from it highlights the areas requiring student improvement, thereby prompting the author to start by ideating more specific HMWs. The goal of this exercise was to shift into a convergent way of thinking, and direct the thinking into problem-solving by addressing the challenges and barriers of both students and teachers, while also supporting the students' wants and needs.

The following HMW questions were generated:

- HMW create a supportive and understanding classroom environment that addresses the unique challenges immigrant women face?
- HMW involve spouses and families in the educational journey to foster a more supportive home environment?
- HMW choose course locations that are easily accessible by public transportation and provide transportation assistance or solutions for those who struggle with commuting?
- HMW incorporate participatory design methods to involve students in shaping their learning experience?
- HMW develop a curriculum that aligns with industry standards and provides hands-on, practical knowledge for career advancement?
- HMW design flexible class schedules that accommodate children's school hours and other family responsibilities?
- HMW ensure that the course content is presented in an accessible and understandable manner for students with varying levels of prior education?
- HMW create opportunities for students to build their confidence and overcome self-doubt?
- HMW offer additional guidance and resources to help students grasp new concepts and apply them effectively?
- HMW celebrate small successes and milestones to motivate and encourage continuous learning?
- HMW provide additional services, such as childcare or included meals, to reduce external stressors and enable better focus on learning?
- HMW tailor the teaching methods to accommodate the diverse educational backgrounds of the students?
- How Might We make difficult topics more accessible to students?
- HMW assess and address individual learning needs to ensure that each student receives the appropriate level of support?
- HMW design interactive and culturally relevant curriculum materials that boost student engagement and motivation?
- HMW provide students with greater access to necessary technology and digital resources?
- HMW continuously adapt and innovate the teaching methods to better suit the needs of immigrant women?
- HMW offer additional academic support, such as tutoring or study groups, to help students overcome challenges?
- HMW ensure that the selection process considers the holistic needs and potential of each student?
- HMW establish a framework for continuous improvement of teaching practices based on regular feedback and assessment?
- How Might We leverage user journey insights to improve the educational experience?
- How Might We create a more flexible and adaptive learning environment?

PROCESS DEVELOPMENT

PROTOTYPE - WORKSHOP WITH STUDENTS AND TEACHERS, SERVICE BLUEPRINT AND MOTIVATION MATRIX

After the ideation stage, the author decided to move into the prototyping phase and visualise the service through various methods.

Firstly, the author collaborated in a co-designing workshop with students and teachers with the goal to prototype with them. From their feedback the author created a service blueprint and a motivation matrix which serve as prototypes.

Prototyping Workshop
To answer some of the HMW questions, further utilise the participatory design approach, and start the prototyping stage, the author organised and facilitated a co-designing workshop with both teachers and students. The author took inspiration for the exercises from the Participatory Design toolkit by Hwang & Fellow (2012).
The topic of the workshop was “What makes a lesson good?”. The research questions for the workshop were:
What are the gaps between students’ and teachers’ expectations during the course? How might we bridge the gaps between the students’ and teachers’ expectations during the course? What is the journey each stakeholder takes?

The HMW that the author aimed to answer were:

- HMW incorporate participatory design methods to involve students in shaping their learning experience?
- How Might We create a more flexible and adaptive learning environment?
- How Might We make difficult topics more accessible to students?
- How Might We leverage user journey insights to improve the educational experience?

To invite people, the author created a flyer with a QR code to a google form for signing up. The flyer was sent to her class, as well as to a Slack channel with students and teachers in Copenhagen, both current and alumni. People could choose the time and date that suited them best, aiming to be empathic towards their schedules. Fifteen people had signed up for the workshop, however, on the day only six arrived. This did not stop the workshop from happening as planned. Four participants were students and two were teachers. The students were from the Cyber Security course, UX Design course, UI Design course, and the SSD course. The teachers were from the UI course, and Programming course.

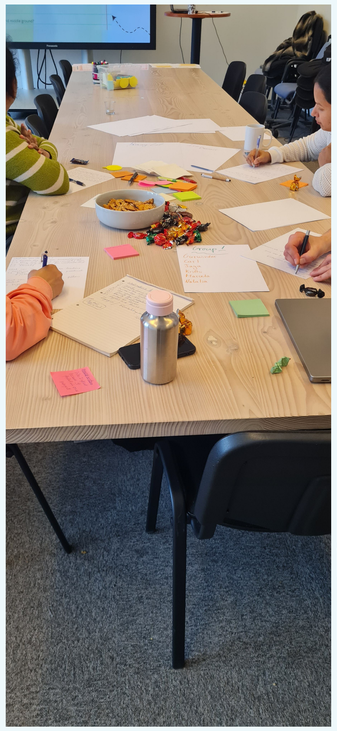
The workshop started with welcoming all participants, splitting them into the two pre-established groups consisting of two students and one teacher, making clear the guidelines for the workshop, and introducing each other to create a safe and comfortable environment. This was followed by a short introduction to the goal of the workshop and to the topic of the thesis, followed by the agenda of the workshop.

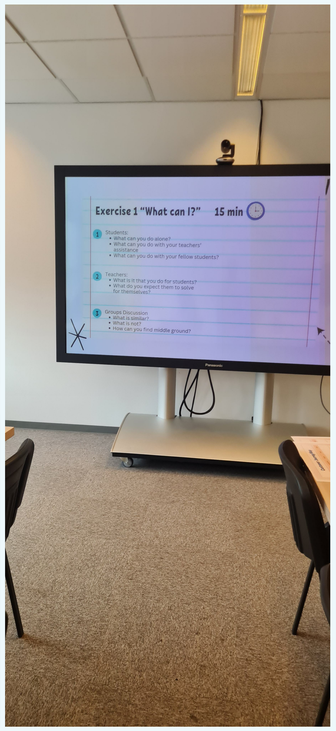
As a beginning an icebreaker was used to further create a comfortable environment where everyone could share their opinions and thoughts without fear of judgement, as well as set the mood into thinking about the topic. The icebreaker was “Never Have I Ever” - education edition. The participants had to make Never Have I Ever statements about their studying habits, or related to their education. The rule was to take a sweet from the table every time someone stated something you have done. The students had a lot of fun, and earned a lot of sweets in the process.

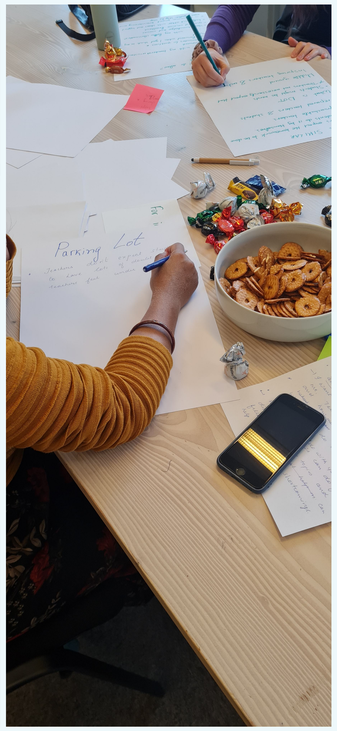
PROCESS DEVELOPMENT

PROTOTYPE - WORKSHOP WITH STUDENTS AND TEACHERS, SERVICE BLUEPRINT AND MOTIVATION MATRIX

Following this introduction, the workshop participants engaged in the first exercise, titled "What can I?". In this activity, they were prompted to respond to a set of guiding questions designed to help them identify their capabilities and roles as both students and teachers. Additionally, they were given a paper called the Parking Lot, where they could record interesting but irrelevant ideas for future consideration. The primary objective of this exercise was to identify discrepancies between the expectations of students and teachers and to work towards finding common ground.







The questions that the students had to answer are as follows:

- What can you do alone?
- What can you do with your teachers' assistance
- What can you do with your fellow students?

The main responses were that students can do homework, study and prepare for classes alone. With their teacher's assistance students can brainstorm ideas, understand hard topics, and clear doubts. The responses to the third question included group work, discussion and feedback, and help each other.

The teachers had to answer the following questions:

- What is it that you do for students?
- What do you expect them to solve for themselves?

The responses from the teachers for the first question were to be patient, empathetic, and encouraging, give honest feedback, and help, offer assistance and create an open and safe environment. The answers for the second question included homework, reach out for help, come prepared to classes, and help each other.

PROCESS DEVELOPMENT

PROTOTYPE - WORKSHOP WITH STUDENTS AND TEACHERS, SERVICE BLUEPRINT AND MOTIVATION MATRIX

After having time to answer the questions, the participants entered a discussion to find out differences and similarities in their answers, specifically between the teacher in the group and the student. The similarities the group found were that teacher expect students to come prepared to classes, which is also an expectation from the student for the teacher. Another similarity was that homework should be done, and if assistance is needed students can reach out. A difference that was found was that some students might be really into the subject, which is not expected or anticipated by the teacher, but is very welcomed.

The discussion allowed the participants to gain a more nuanced understanding of the teacher-student dynamic, and the complex web of expectations on both sides. By identifying these similarities and differences, the participants were able to develop a more holistic perspective on the educational process and the importance of clear, aligned expectations for a successful learning experience.





PROCESS DEVELOPMENT

PROTOTYPE - WORKSHOP WITH STUDENTS AND TEACHERS, SERVICE BLUEPRINT AND MOTIVATION MATRIX

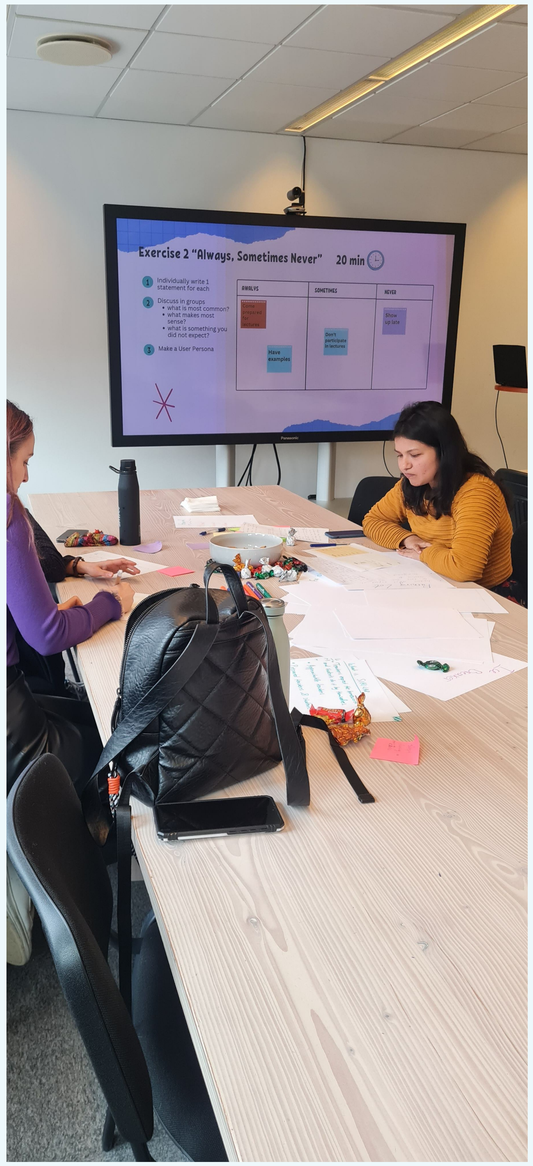
After a short break, the participants grouped again for the second and third exercise.

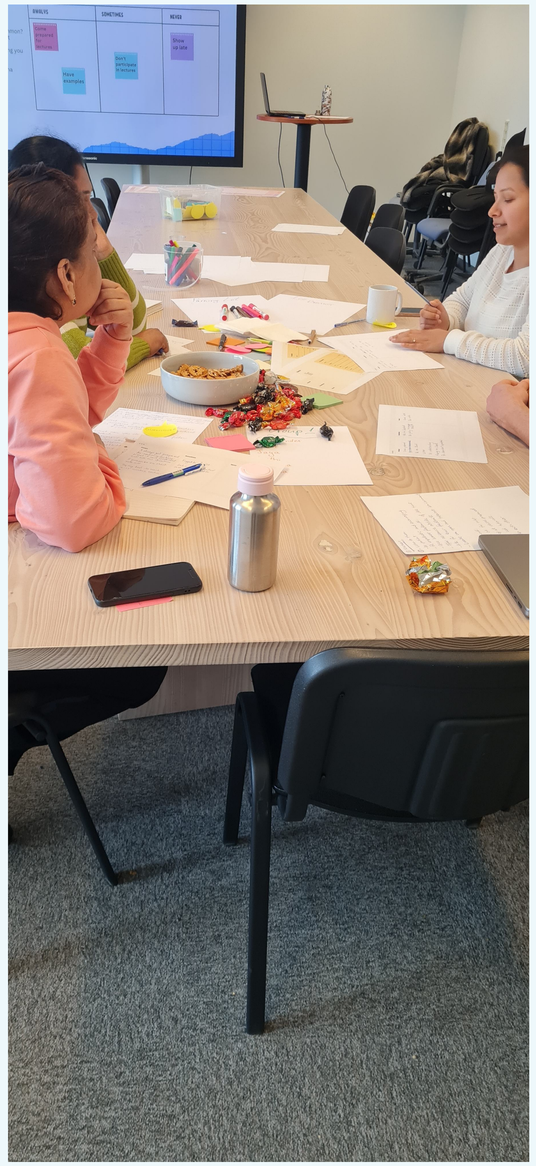
The second exercise, called “Never, Sometimes, Always”, aimed to investigate the habits of the participants in relation to education and studying. The task the students had to accomplish was to write at least two statements, individually, for each category, and then discuss in group what was similar, what was not, what was unexpected. They were given a template to fill in.

Some of the students’ Always statements were that they always come to lectures on time, they always have questions, leave the class motivated and inspired, ask for feedback, and write notes. The teachers wrote that they always come prepared for lectures, listen to their students, reply on Slack, and are always understanding.

The Sometimes statements included feeling that the class goes too fast, they sometimes do not do their homework, and sometimes they find the lectures hard to understand. One of the teachers wrote that he is sometimes pushy to engage students, while the other shared that she is sometimes more laidback allowing students to find their way. They both said that they sometimes ask for feedback.

Some of the students do not fill in the Never statements part, so there were fewer than for the other two categories. As never statements, the students shared that they never misbehave during class, they never miss classes, they are never late. The teachers shared that they are never late to class, and they are never rude to their students.





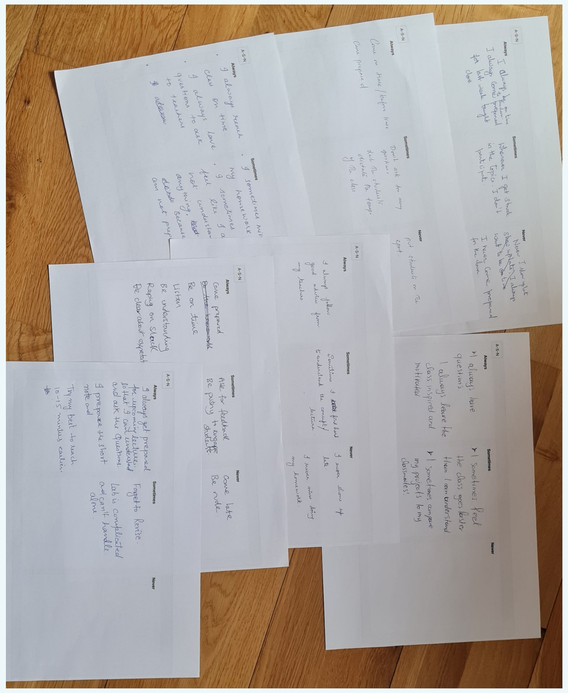
PROCESS DEVELOPMENT

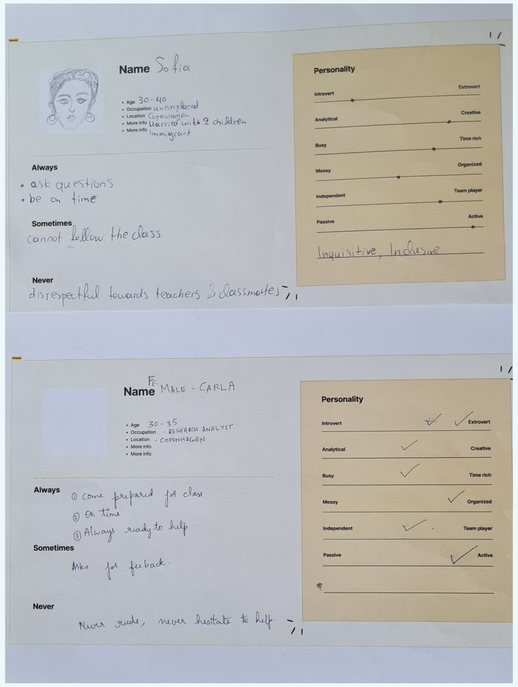
PROTOTYPE - WORKSHOP WITH STUDENTS AND TEACHERS, SERVICE BLUEPRINT AND MOTIVATION MATRIX

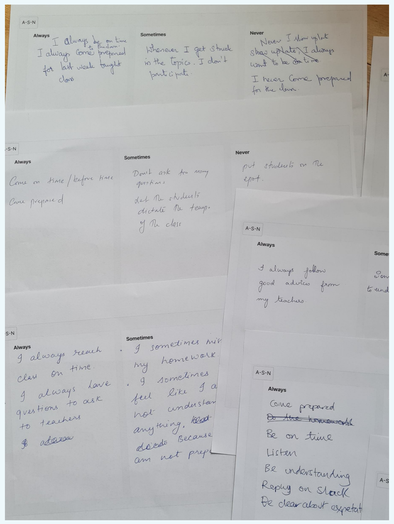
The second part of this exercise was to, in groups, create a user persona based on the statements written in the first part. One of the groups was tasked to create a student's persona, and the other group was tasked to create a teacher's persona. The author first explained what a user persona is, gave examples, and then provided templates for the students to use.

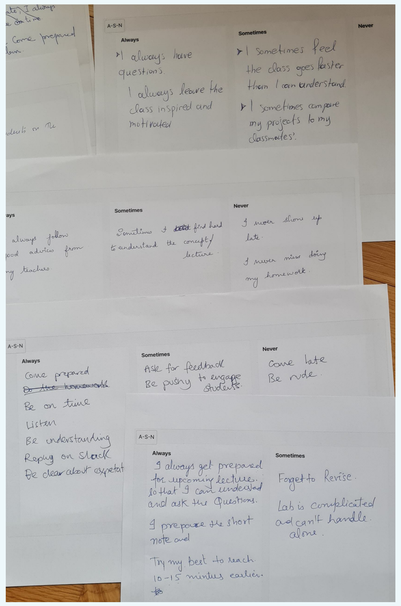
The student's persona was named Sofia, she is married with two kids, and is unemployed. She always asks questions during lectures, and is always on time. She sometimes cannot follow the class, and is never disrespectful towards teachers and classmates. For her personality, the group decided to add that she is inclusive and inquisitive.

The teacher's persona was named Carla, she works as a research analyst and lives in Copenhagen. She always comes prepared to classes, is always on time, and is always ready to help. Carla sometimes asks for help, and never hesitates to help. She is never rude.









PROCESS DEVELOPMENT

PROTOTYPE - WORKSHOP WITH STUDENTS AND TEACHERS, SERVICE BLUEPRINT AND MOTIVATION MATRIX

The third exercise was about creating a user journey based on the user persona, and personal insights. The workshop participants were introduced to what a user journey is, the different components, and how to use it, as well as to an example they could use as inspiration. They were given a template to use with the components, aiming to help the process.

Throughout the exercise the students had some difficulties as this was the first time they were creating a user journey. Among the challenges encountered was the omission of certain steps in the journey, presumed to be self-evident, and trying to ideate opportunities to solve the pain points, as they were afraid to think outside of the box.

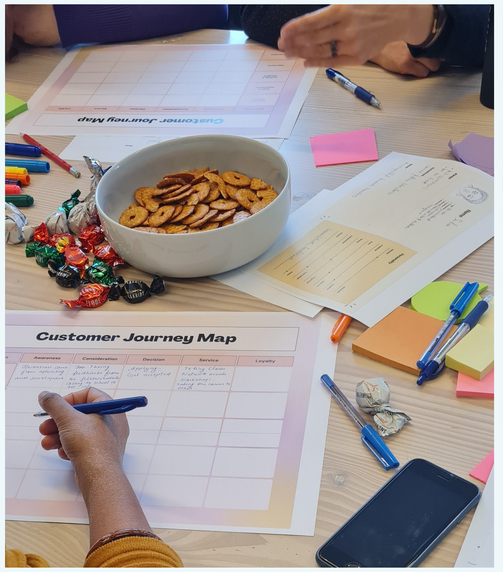
The group that formulated the teacher's persona naturally constructed the user journey based on the teachers' experiences. The group that created the student's persona created the user journey based on a student's experience and the persona. Some of the unexpected facts that the author heard while observing were the hard process a teacher has to get in touch with ReDI when applying through the website, and the long time it takes to get a response. A fact that was unknown to the author before the workshop was that students apply for two courses at a time, and can be rejected due to unavailability.

The workshop ended with the two groups presenting their work, and giving feedback to each other. Unfortunately, there was not enough time for discussion, however the author prompted them to send any thoughts via Slack. The workshop participants exchanged LinkedIn profiles, which helped their network.

The co-designing workshop organised by the author was successful in bringing together students and teachers from various courses at ReDI School to explore the topic "What makes a lesson good?". The workshop's main findings are that both students and teachers expect the other entity to come prepared to classes, students often feel that they are falling behind due to not understanding the class materials, teachers are always ready to provide assistance, students expect teachers to provide help when in doubt, and teachers expect students to reach out.

Most importantly, the workshop participants prototyped the user journey maps that the author will use in creating a service blueprint. This is a successful way of using a participatory design approach.

Overall, the workshop facilitated a deeper understanding of the dynamics between students and teachers, emphasising the importance of clear communication, aligned expectations, and empathy in creating a successful learning environment.





PROCESS DEVELOPMENT

PROTOTYPE - WORKSHOP WITH STUDENTS AND TEACHERS, SERVICE BLUEPRINT AND MOTIVATION MATRIX

Service Blueprint

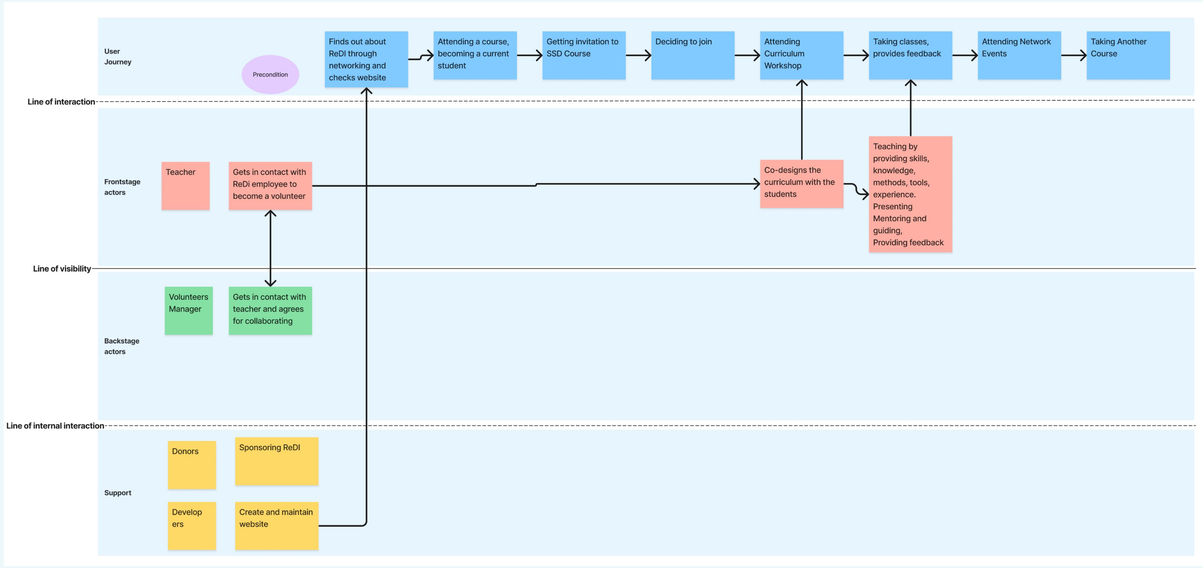
To holistically visualise the relationships between the stakeholders, processes, and touchpoints, the author decided to use a service blueprint. For the user journey the author combined the user journey created during the workshop described in the previous sub-chapter, and the journey she knows her students took.

For front stage actors, the author decided to put only the teachers, as they have the most often direct interaction with the students. Backstage actors includes the volunteer manager, and in Support processes the author put the donors, without whom ReDI would not function the same way, and developers who created and maintain the website.

The Service Blueprint is zoomed out and represents only the main user actions, which was decided upon because of time limitations pressing the author.

The author reflects on the fact that the Service Blueprint can be more detailed to fully represent the service.

Better vie can be found in Appendix 7.



PROCESS DEVELOPMENT

PROTOTYPE - WORKSHOP WITH STUDENTS AND TEACHERS, SERVICE BLUEPRINT AND MOTIVATION MATRIX

Motivation Matrix
The four actors, the author chose to represent in the motivation matrix, are the students, the teachers, ReDI as an organisation (which includes all employees), and guest teachers. The guest teacher was part of a mini-experiment the author chose to try during the SSD course to see its potential.

	Students	Teachers	ReDI	Guest Teacher
Students	Gain new skills & knowledge Network Enrich CV & Portfolio	New perspectives, experiences and friendship	Participants in their courses	Network
Teachers	Give Education, Skills, Knowledge, Tools, Methods	Share knowledge & skills Help a cause they believe in Network Practice Facilitation & Presentation skills	Professionals eager to help others and share their knowledge, skills, and experiences	Opportunity to network, and practice skills
ReDI	Provides free digital education, mentorship, job matching, company visits	Opportunity to fulfil their desire to help others Support	Help immigrant women integrate in Danish society Help immigrant women find jobs on the Danish job Market Educate immigrant women	
Guest teacher	Shares expert knowledge amd skills	Help and support		Practice facilitation & presentation skill Network Help others by sharing their knowledge

PROCESS DEVELOPMENT CASE STUDY

PROCESS DEVELOPMENT

CASE STUDY

The following subchapter will present to the reader the design experiment that the author ran for twelve weeks (fourteen consecutive, including the public holidays).

To fully engage in a participatory design approach, and better utilise its principles, the author decided to teach a Service Design Course at ReDI school. The first step was to contact the volunteer manager and pitch the idea with a presentation which included what service design is, why it is useful for career development, and some of the methods and tools which could be included in the curriculum. After that, an agreement was made to collaborate.

The usual process to collect students for a course is to publish the course on their website, make an application portal, and then screen them through an interview. However, as this was decided to be a one-time course to help the author with her thesis, the ReDI employee got in contact with the current and alumni students of ReDI to present them with the course. The invitation was sent to all students, however, only students from the marketing, UX Design, and UI Design courses signed up. In total twelve students signed up for the SSD course.

As mentioned in the previous chapter, the first interaction between the author and the students was during the Curriculum Workshop, which happened on the 12th of December 2023. From then, until the beginning of the course, the author collected more data by conducting the user interviews with five of the students.

The course consisted of twelve lectures. Two of these lectures were allocated for status presentations, occurring at five-week intervals. The final lecture was designated for final presentations and the examination.

As ReDI uses Slack for communication, a Slack channel was created for the course, which was the main channel of communication. Additionally, the author created a Google Drive folder where all materials were uploaded.

The author utilised all learning styles mentioned in the literature review, that were proved to be more beneficial for women, such as hands-on exercise, collaborative working, lectures and discussions.

First Lecture - 7th February

The Purpose of the first lecture was to get introduced to each other, and establish the rules for the course, which were:

- Be open-minded and respectful towards each other
- Do not hesitate to ask questions - there is no such thing as a stupid question
- Always come prepared - read the materials, do group work, and do your homework

With those guidelines, the author aimed to create a safe and comfortable environment, where the students can feel valued and their voices heard, as advised by the expert interviews.
Furthermore, by doing this the author followed the principles of teaching by using participatory design.
Additionally, the author grouped the participants in four groups of three people, as design entails collaborative work.

Additionally, the author grouped the participants in four groups of three people, as design entails collaborative work.

PROCESS DEVELOPMENT

CASE STUDY

During this lecture, the students were introduced to service systems design, the main characteristics of services, and their implications. Followed by that the students were introduced to design thinking and methods they can use during the empathise stage. The lecture ended with a presentation of the brief, and a Q&A session. Starting with the fundamentals of both service design and design thinking methodology aimed to follow the findings from the reviewed literature - teaching service design at the beginner level entails teaching the basics for designing a service.

The mandatory literature that the students had to read for the class was:

- How to Design a Service by G. Lynn Shostack
- This is Service Design Thinking pages 21-39
- What Is a System and a System Perspective by David Aloyzy Zera
-

All literature materials were always provided by the teacher, and sent a week before the lecture for convenient learning time.
The students were presented with two briefs to work on.

Brief 1: Optimising Customer Engagement and Revenue Generation
Café at the heart of Copenhagen has observed a recurring challenge where customers, particularly laptop users and student groups, tend to linger for extended periods without making sufficient purchases. This behaviour impacts the café's revenue and overall customer experience. The project aims to address this challenge through innovative service design solutions that focus on service as interaction.

Brief 2: Enhancing Accessibility and Inclusivity
Café at the heart of Copenhagen is dedicated to creating an environment where everyone feels welcome, comfortable, and able to enjoy their time. However, there is a recognised need to enhance inclusivity and accessibility for all customers. The project aims to address these inclusivity gaps through innovative service design solutions that cater to a diverse range of needs, by focusing on services as systems.

The goal of providing two briefs was to give more freedom to the students, and let them decide their own learning path.

The students were presented with an Excel sheet in the Google Drive folder, where they could book the author for supervision, every Wednesday after the class.

One of the requirements for this course was delivering a process report at the end of the course, which included the research analyses, methods and tools they used, and the process development of their solution. The structure of the report can be found in Appendix 7.

At the end, the students had to fill in a feedback form, from which the author found out that people are not morning people, so it was hard to focus, they were falling asleep, do not have a design mindset so they don’t understand services, really heavy materials provided to read, there was too much theory, and that they want more practice and case studies.

As the next lecture was in two weeks, the students got homework to create their Project Plan with major milestones, which they could use as a guide for their process.

PROCESS DEVELOPMENT

CASE STUDY

Second Lecture - 21st February
During this lecture, a framework was presented to understand what the students are going to learn in this semester and to qualify knowledge and capabilities they need to have, in order to design service systems. They also learnt about paradigms in service design. The lecture finished with diving into empathy and user interviews.

Based on the feedback about the literature, the author provided only one paper to read, and two videos to watch: Morelli, N., & Tollestrup, C. (2007). New Representation Techniques for Designing in a Systemic Perspective. Paper presented at the Nordes 07, Stockholm. In A World of Systems The riddle of experience vs memory

Unfortunately, three people decided to drop out after the first lecture due to personal reasons, and because they thought service design is not for them. Therefore, the author had to rearrange the groups.

One crucial exercise that the students had to do during this lecture was about creativity - 9 dots, 4 lines. The students had to connect nine dots with four straight lines. After not being able to find a way, the author showed them how to do it - by thinking outside of the box. The goal of this exercise was to show them that they should not stop themselves from thinking unconventionally, and to start fostering a design mindset they have to let go of restrictions.

The online platform Miro was utilised for the other exercises done during this lecture - discussing in groups the consideration of services, and what emerges when analysing it through an analytical approach versus a systematic approach. The goal was for students to realise the differences between the two approaches.
Link to it can be found in Appendix 7.

The feedback that the students provided was that they want more exercises, and case studies so they can see the implications of service design in the real world.



PROCESS DEVELOPMENT

CASE STUDY

Third lecture - 28th February
During this lecture, the students learnt about the different touchpoints in services, and how their interactions create the service. The class also looked into how stakeholders co-produce the value in services. The students were introduced to the Define stage of Design Thinking.

The mandatory literature was: Simon Clatworthy, Service innovation through touch-points: Development of an Innovation Toolkit for the first stages of New Service Development, International Journal of Design, 5(2), 15-28, 2011

To follow the feedback, and provide more hands-on activities, during the lecture, the students engaged in two group exercises. The exercises that were done during this lecture were about creating the normal day of their target group, and then figure out where the touchpoints are with the current service. The second exercise was about creating their first ecosystem map.

Additionally, the author presented her projects from the first and second semesters as case studies, as the students asked for in the previous feedback forms.

The feedback from this lecture's form was that with more exercises the theory becomes clearer, they want more time discussing the literature, and that they felt good and inspired during this lecture.





PROCESS DEVELOPMENT

CASE STUDY

Fourth Lecture - 6th March
The purpose of this lecture was to zoom out of the touchpoints, and look into the experience of the users during the service. The lecture focused on the organisation of the service, more specifically it will address the following questions:

- How can the service experience be represented
- What are the actors and the competencies involved in the service system?
- What are the motivations that support actors' participation in the system?

The students also learnt about Define methods - POV, HMW questions, and affinity diagrams. They had to do an exercise using each of the methods and the insights they had gathered so far.
The participants could choose between two papers, however it was advised to read both. The two papers were: Patrício, L., Fisk, R. P., Falcão e Cunha, J., & Constantine, L. (2011). Multilevel Service Design: From Customer Value Constellation to Service Experience Blueprinting.
Collina, Luisa, "System Architecture" in Jegou, F., Manzini, E., & Meroni, A. (2004). Solution Oriented Partnerships as Models of Network of Advanced Industrialisation to Build Value in Specific Contexts. Product Service Systems: Practical Value, Brussels, Belgium. (Pp. 58 - 71)

During this lecture, the students created an affinity diagram, a POV, and How Might We questions.

Another person dropped out from the course, which made the number of participants eight. Because of the dropout rate, the author facilitated the Concerns Discussion which was described in the previous chapter.

During this lecture, the participants also learnt about how to create a good presentation, and how to present project status. This was included in the curriculum both because of the findings from the first workshop, but also because of the Status Presentations, planned for the following week.

The feedback from this lecture was that they enjoyed this lecture due to the multiple exercises. One student wrote that they felt heard and understood as a student due to the Concerns discussion.

PROCESS DEVELOPMENT

CASE STUDY

Fifth Lecture - 13th March; Status Presentations
This lecture started with the three groups presenting their status, and receiving feedback both from their fellow students and the author. The students who were not presenting had to fill in their feedback in an Excel Sheet, answering two aspects - how was the content of the presentation, and how were the presentation skills. This practice was adopted from the author's own experience in the semesters.

The overall feedback that the groups received from the author was to have a better body language when presenting - making eye contact with the audience, and speaking up; the content of the presentation can be reduced to bullet points, and adding more visuals; and lastly to practice more before the presentation to ensure which member says what during the presentation.

The rest of the lecture focused on the definition of a service concept through the narrative of the concept, on the value co-creation system, including the actors that contribute to the value creation. Also, the class worked on the concept of personas, defined in the course of User Experience Design for Service Interaction, to propose scenarios that will help determine the value proposition for the service.

The students did not have new literature to read for this week, as the author wanted to give them more time to focus on their presentations, considering their roles as mothers and their full schedule because of that.

The feedback for this lecture was that everything is going well, they learn more with more hands-on exercises, and that they do not want to fill in the feedback form every time, as they do not have anything new to add.

PROCESS DEVELOPMENT

CASE STUDY

Sixth Lecture - 20th March
This lecture focused on the concept of quality applied to services: in what terms can we talk about quality in a service? How can one articulate the analysis of a service to consider its possible quality gaps and what parameters can one consider to measure the service quality?

The students were given two papers to choose from to read: Parasuraman, A., Zeinthaml, V., A., & Berry, L. L. (1985). A Conceptual Model of Service Quality and Its Implications for Future Research. Journal of Marketing, 49(4) or Polaine, A., & Løvlie, L. (2013). Service Design: From Insight to Implementation. Brooklyn, New York: Rosenfeld Media. They were also provided a Ted Talk video from Don Norman - 3 ways good design makes you happy.

The exercise for this lecture was to create a value constellation.

During this lecture, the students also learnt about the Ideation Stage in Design Thinking, and were presented to various methods used during this stage, and a brief explanation of how they can be used. They were sent a Voting Form, where they could choose which methods they can learn more in-depth about during the next lecture.

The feedback that the author received was that the students do not want to fill in the feedback form anymore, and that if there was anything they wanted to share they feel comfortable reaching out.

PROCESS DEVELOPMENT

CASE STUDY

Seventh Lecture - 3rd April
During this lecture, the students learnt about Futures Thinking, Futures Scenarios, and three ideation methods - Lotus Blossom, Collaborative Drawing, and creating a future scenario.

The literature the students had to read was Simeone, L., & D'Ippolito, B. (2022). The potential of design-driven foresight to support strategy articulation through experiential learning. Long Range Planning

Only two people showed up to this lecture, so it was not as productive as the author had anticipated. However, the two students who showed up shared that they quite enjoyed the exercises.

A discussion about their needs and challenges was started, where they both shared that they feel incredibly empowered to be able to make decisions in regards to how their own education will proceed. One of them later wrote on Slack: "I was never given the opportunity to make suggestions or give input as to how the class would be structured or content taught. So to be able to give feedback and suggestions is empowering and makes me feel valued as a student."

As homework, all students had to write their needs, wants, challenges, and barriers, using Miro.

The author did not send out a feedback form from this lecture on, but always emphasised that the students can reach out and share any concerns they have, seek guidance, or ask any questions.

Lastly, another student decided to drop out, which created a problem for one of the groups, as the last member was left alone. She made the decision to continue working alone instead of joining another group, as the project had already advanced.

She sought supervision after the class, where she learnt that the process they had been following was straying from the brief too much, and she had to go back to empathising to gather data which was relevant for her project. The author reassured her that everything will be fine, offered help and assistance in any way, and gave tips on how to handle the obstacle, such as to embrace her limitations, and interview only one person.

PROCESS DEVELOPMENT

CASE STUDY

Eighth Lecture - 10th April
For this lecture, the students learnt about prototyping. The practice of service design demonstrates that service prototyping has different meanings and that successful service prototyping is still a challenging task. In this lecture prototypes, provotypes and pretotypes will be explored as three different approaches that can be used in the design process.

The literature the students had to read was either Service Prototyping According to Service Design Practitioners by Johan Blomkvist, Stefan Holmlid or Pretotype It - Make sure you are building the right it before you build it right by Alberto Savoia, Second Pretotype Edition, October 2011.

During the lecture, one of the students shared that the paper Pretotype It was a really easy and enjoyable read.

As for the previous lecture, only two students showed up, the exercises that were done last time, were repeated this time with the whole class. This decision was made as the author wanted to be more accommodating to the needs of her students, and thought it was a good learning opportunity for them.

The groups created their first storyboard, and tested it with their fellow students, receiving feedback and improving it.

Ninth Lecture - 17th April; Status Presentations
During this lecture, the students presented their status, and received feedback from their fellow students, the author, and the guest teacher.

One of the groups did not prepare any presentation due to one of their group mates having family issues, which prevented them from meeting. Their solution was to take all the materials they had worked on until this point, and present them to the class. The author applauded them for their quick thinking and creative solution.

The other two groups had followed the feedback from the previous presentation, and significantly improved their presentations.

After the presentations, the class had a Figma Crash Course provided by the guest teacher who has significant experience working with the software. The choice to include this in the curriculum was due to two reasons. The first being, the author wanted to experiment and see if there are any benefits of including specialists from the industry in the lectures. The second reason was that during breaks and after classes, the students coming from the UI design and UX Design courses had shared that they do not remember much about how to use Figma, but would like to try again.

The students enjoyed the crash course, and gave positive feedback to the guest teacher.

Afterwards, the students were given the task to create one of their touchpoints using Lego. This prototyping method was chosen due to its playful nature, as well as the option to tangibilise part of a service. The students gave positive feedback for this part of the lecture, too.

PROCESS DEVELOPMENT

CASE STUDY

Tenth Lecture - 24th April
During this lecture, the students learnt about what service blueprint and user journey map are and how to use them. They were introduced to the last stage of Design Thinking - testing, best practices, why and when to use.

The mandatory reading for this lecture were two articles from NNGroup - https://www.nngroup.com/articles/service-blueprints-definition/ and https://www.nngroup.com/articles/journey-mapping-101/

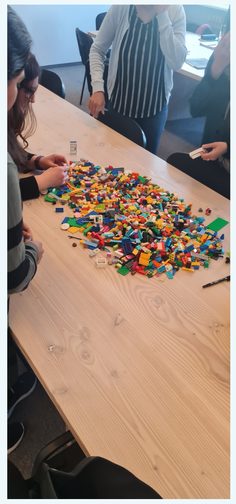
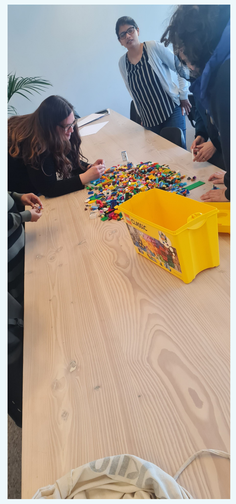
During this lecture, the students tested their Lego prototypes by creating testing forms with questions and scenarios. They tested with each other, and used the received feedback to either improve their Lego prototype, or create another type of prototype.

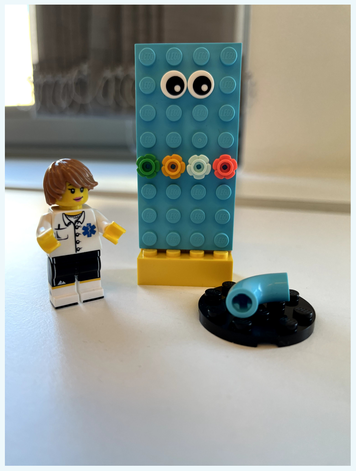
The students also created a user journey map based on the data they had collected.

Eleventh Lecture - 1st May
During this lecture, the students learnt about best practices on how to present the final solution, and elevator pitch.

As an exercise they had to create their elevator pitch, and present it to the class, receiving feedback afterwards.

Most of this lecture was left for group work and supervision, which helped the students to prepare for the last class which was designated for final presentations and exam.





PROCESS DEVELOPMENT

CASE STUDY

Twelfth Lecture - Final Presentations and Exam
For the final class, each group presented to the class their solution and a critical reflection of their process. After each presentation, the presenting group stayed in the room for an exam in the form of informal conversation, while the others waited outside.

Group 1 - solution and exam
Group 1 had only one member for half of the course. Her solution was Optimising Customer Engagement and Revenue Generation by a coffee shop app. The coffee shop app included different features such as games to earn points for free coffee, a QR code to the menu, and reminders to order.

The student was asked three questions:

1. Show your design process - for this she drew an iterative process, where she went back and forth from stage to stage, showcasing that she understands that the design process is not linear.
2. Where are you, as a service designer, in the stakeholder map? - the student answered that she sees herself on the outermost circle, explaining that as a service designer, she needs to see things holistically to be able to design for everyone, and take into consideration all touchpoints. Her answer proved she understood the fundamentals of service design.
3. What are your personal learnings from this course? - the student shared that she was a teacher so a lot of the things that she learnt during the course, she already was using. She shared that as a teacher you also provide a service, so she thinks that this is a personal learning for her, that she took from this course.

The student overcame the obstacles on her way utilising design methods and tools, fostering a design mindset. Furthermore, her report showed a good design process, where she used a variety of the taught methods, tools and skills to create the final service. She has a good understanding of the principles of both service design and design thinking, and can freely use them without assistance. She improved her presentation skills, and learnt how to confidently present her ideas, without self-doubt.

Group 2 - Solution and Exam

Group two had three members throughout the whole course. Their solution was “Exploring, Innovating, Crafting Café Strategies” which utilised a QR code for ordering, receiving Wi-Fi access when ordering, and promotions for members. With this, they aimed to increase revenue for the cafe, and increase customer engagement.

The students were asked three questions:

1. Show your design process - they all showed a process where they had to iterate and learn from their mistakes. With their answer, they showed they understand that the design process is not linear, and mistakes are good learning opportunities.
2. Where are you, as a service designer, in the stakeholder map? - all three of them placed themselves in the outermost circle, explaining that as service design they need to be able to have a view over all stakeholders and touchpoints to be able to design a tailored service. They shared that they learnt this “the hard way” through failures.

PROCESS DEVELOPMENT

CASE STUDY

3.What are your personal learnings from this course? - the students shared that they learnt how to uplift those who are struggling, especially within a group dynamic. They talked about how it is essential to cultivate empathy, compromise, and tolerance towards all members. They added that a service designer must adopt a holistic perspective, akin to a helicopter view, considering the needs of every stakeholder, highlighting that this should happen without taking sides. Collaboration thrives when individuals recognise and leverage each other's strengths, allowing everyone to contribute in their preferred roles. The students said that these learnings are not just acquired knowledge but qualities to embody.

Group two grew a lot during this course, as they began being very sceptical of service design, however, their final presentation showed how much they learnt, and their appreciation for both group work and designing services. They overcame obstacles such as arguments and misunderstandings, through clear communication and compromises. With their report they showed they know how to use service design principles, tools and methods, building a strong toolbox. They also know how to utilise a design thinking process, and its methods.

Lastly, due to family issues, one of the students brought her child with her, which was earlier communicated as a possibility if the need occurs.

Group 3 - Solution and Exam
Group three had two members for the majority of the course, and worked in very good unison. Their solution was Enhancing Accessibility and Inclusivity at coffee house, targeting families with children up to five years old. Their solution includes playgrounds and toys for the children, an exclusive kids menu, premium prices and offers for members, and others.

The students were asked three questions:

1. Show your design process - they showed a non-linear process, showcasing the same learnings as the previous groups
2. Where are you, as a service designer, in the stakeholder map? - one of them said that as service designers they are in the outermost circle, as they need to be able to see every stakeholder and touchpoint. The other said a service designer is in the centre, as they work closely with everyone and design the service. Their answers showed that they understood the role of a service designer.
3. What are your personal learnings from this course? - they both shared that they had no idea what service design was before starting the course, but now they feel confident designing basic services. For them it was a huge learning experience, although their solution was for a simple coffee place, as there were so many stakeholders and touchpoints to consider. They also learnt how to work in groups, and collaborate with each other.

Group three worked the hardest during this course, asking questions and seeking feedback and supervision. They fostered a design mindset, which was showcased in their process report. They can implement and tweak the various methods they learnt during the course. Additionally, they understand the principles of both service design and design thinking, and can implement them in projects.

PROCESS DEVELOPMENT

CASE STUDY

It is this author's opinion, that the course was a success as it covered the set objectives:

- Understands and reflects upon the main theories, methods and tools related to the design of a service.
- Understands and can critically reflect upon theories of design thinking.
- Understands the characteristics and principles of services and the way they are organised, developed, and represented.
- Has capabilities to engage with users and support their participation and involvement in services.
- Applies appropriate methods and tools to support the design of services.

They were achieved as all six students finished the SSD course understanding and being able to implement the fundamentals of service design and design thinking, as well as their methods and tools. Additionally, the students learnt how to present both status and finalised projects, and how to pitch their ideas. At the end of the course, all students had methodological skills, and knew how to communicate and work in group settings, which enriched their interpersonal skills. They learnt how to do UX research by putting themselves in the shoes of the user, as well as structure, analyse, visualise and utilise the findings to further develop their projects. They fostered a critical, problem-solving mindset, which can implement creativity in their processes.

The students were asked in the beginning, in the middle, and at the end of the course "How much do you know about service design?". On the most left was minimum to no knowledge, and on the most right was a lot to everything about it.

Before



During



After



FINAL SOLUTION

TEACHING GUIDE

FINAL SOLUTION

TEACHING GUIDE

The Final Solution: A Teaching Guide - a comprehensive resource that provides guidelines for teachers to effectively plan and execute ReDI courses. This guide is specifically created for design courses, but the principles and strategies can be adapted to inspire the co-design of technical course curriculums.

The teaching guide uses a participatory design approach as the main framework to design curriculums which are tailored to the specific needs and challenges of immigrant women, while also considering their complex roles as mothers, wives, and migrants in Denmark.

The guide offers valuable insights for teachers to prepare for the ReDI course, and facilitate the course. It emphasises the importance of understanding the target audience, and desired learning outcomes. Instructors are encouraged to engage with students during the course planning stage to gather their input and preferences. This collaborative approach ensures that the course content and delivery methods align with the students' needs and expectations, and addresses their barriers and challenges.

Lastly, this guide was designed based on the reviewed literature, and the outcomes from the design experiment that the author facilitated.

Before the course

Before the course starts, teachers should design and facilitate a workshop during which they should find out the following information which will lead to optimum learning outcomes:

- What skills, methods, and tools their future students are lacking in order to include them in the curriculum. This can be done through different exercises depending on the field. Specifically for UXD and SSD courses, the teachers can take inspiration from the “Jobs Ads” exercise where students outline the skills they lack. The benefit from that is that the curriculum can be based on industry standards.
- Their preferred learning styles. As ReDI targets women and non-binary people, it is of paramount importance to determine the learning styles they benefit the most from. Knowing their learning styles improves the learning outcomes.

Conducting user interviews with the goal of:

- Finding out insights about the students’ backgrounds which will help with creating empathy towards them.
- Determining their preferred teaching methods from which they learn the best. This will further improve the teaching, and therefore the learning outcomes will benefit.
- Learning more about what challenges and barriers they might experience during the course, such as kids’ schedules, unsupportive spouses, work etc. By knowing this information the course schedule can be adjusted to the students’ needs. This will reduce dropout rate.
- Learning about their needs and wants, which will further help accommodating them during the course, and therefore creating a better suited and more comfortable environment.
- Overall getting to know the students on a personal level will create an environment of trust, which can be beneficial during the course in various ways. It will be easier for the students to reach out for help or questions, and share feedback.

FINAL SOLUTION

TEACHING GUIDE

During the Course
During the course the teachers should continue building empathy, fostering a close relationship with the students, striving to create a safe environment for sharing, and keeping track of students' progress.

Recommended methods that can help with the above-mentioned aspects are:

- Getting anonymous feedback about the content and conduct of the lectures. This can be done by using Google Forms, or another survey platform. A method that works is the Stop-Start-Continue. Asking students about their state of mind is also beneficial to the process.
- Facilitating Concerns discussion(s) which aims to address the students concerns, reassure them, and find solutions or middle ground.
- Providing supervision both during lectures and after, aiming to guide students in their process, answer questions, keep track of their progress, and notice their strengths and weaknesses.
- Organising monthly status presentations to keep track of their process, provide feedback and suggest directions that can be undertaken.
- Utilising a problem-based approach with real-world problem to solve, as it creates a strong link between theory and practice
- Invite guest lectures that specialise in a niche part of the field, providing the students experts knowledge, and a networking opportunity.
- Incorporating group work which will teach the students how to collaborate, empathise, communicate, and reach consensus, all of which are skills needed for landing a job.
- Finalising the course with presentation of the solution, and informal examinational conversation to ensure the taught knowledge was absorbed correctly.

The gathered data can be used to lay foundations for the next semester’s curriculum, however it must be kept in mind that every class is different, and this process should be repeated for each class.

REFLECTION

REFLECTION

Throughout this process, several theoretical concepts have been explored both through literature review and hands-on experimentation in the form of a case study. The combination of the two has provided answers to the research question. The following chapter critically reflects on the design process and how it supported or contracted the reviewed literature; the personal learning goals; taking on the roles of both teacher and designer; and lastly the knowledge gained throughout the two years of master's education in service Design.

The process and Literature

Teaching service design, especially to non-designers, proved to be a challenge both for the author, and her students. When the lectures were mainly theoretical the students struggled to understand the concept of a service, and what it entails. However, once the author incorporated more hands-on exercises, case studies as examples, and the project stage was Ideate, prototype and test, the students began to thrive and learn more. This is supported by the literature about teaching service design, teaching service design at the beginner level, and teaching design to non-designers. All three topics explain that problem-based learning is a successful way to teach service design, alongside hands-on exercises, and collaboration (Mirzaie & Parlato, n.d.; De Götzen et al., 2014; Salinas et al., 2023). Additionally, allowing students to have agency over their decisions proved beneficial to their learning outcomes, as they had to learn by trying and failing (Salinas et al., 2023).

Furthermore, incorporating a participatory design approach in teaching also proved to be beneficial both to the learning experience of the students, and the design process of the author. By using this approach the author was able to gain better insights into the challenges and barriers of the students, research what stops the teaching process of other teachers, and tailor the Teaching Guide by following the gathered data.

Proving that participatory design is an approach where users are actively involved in the design process, ensuring the products, systems, or services being developed meet the actual needs and preferences of the people who will use them (Sanders & Stappers 2008). Moreover, using it in teaching context created a sense of being heard and empowerment, which increased the students' satisfaction which led to increased motivation to learn (Könings et al., 2011a). Lastly, utilising a participatory design approach, allowed the author to better address the set of family situations, language and literacy backgrounds, community problems, employment circumstances, and cultural strengths, as (Auerbach, 1992) states as focus of incorporating the approach.

Personal Learning Goals

- Practice and improve facilitation and co-design skills. - This personal goal was achieved through the facilitation of the SSD course in the span of twelve weeks. Starting the course, the author only knew how to facilitate teaching based on her experience as a student, and the reviewed literature. However, stepping into the new role of a teacher, shed light on the complex role a teacher has when facilitating, especially when it involves co-designing the lectures and study curriculum on an ongoing basis. Facilitation, as advised by the second expert's interview, required a lot of preparation before the classes, but it also involved a deep empathy towards the students. Not only seeing them as students, but as their roles in the real world. Co-designing was another aspect that was practised and improved throughout the thesis. What the author reaffirmed was that creating a safe environment of trust and freedom, positively benefits the outcomes of the design process.

REFLECTION

Personal Learning Goals

- Exercise empathy by designing human-centred solutions. - This goal was also successfully achieved during the duration of the thesis, as one of the design thinking stages repeated the most was Empathise. The author looked through different angles, and tried to find out as much about the students as possible through various methods and tools. Moreover, the author created a close relationship with the SSD students by casually conversing with them, sharing everyday life opinions. The author believes that this aspect helped the students grow trust in her as a teacher and mentor.
- To learn to collaborate with an organisation addressing its stakeholders and their needs. - It is in this author's belief that while collaborating with both students and teachers, the collaboration with the organisation could have been deeper, involving them in the co-designing workshops. The ReDI employees were put aside, as secondary stakeholders in the service, as the author wanted to explore a solution centred around the students. However, to design a service that is holistic, a service designer should include all stakeholders in the design process.
- To contribute with useful and meaningful insights to the organisation and its stakeholders. - While the Teaching Guide was completed, the author did not have time to test it, therefore its usefulness to the organisation can be proved only theoretically. However, the insights the author gained throughout will be shared with the organisation, so they can improve their processes.

Taking on different roles

Another aspect the author reflected on was taking on the roles of both a teacher and a designer during the master's thesis. In the author's opinion this was a beneficial choice, however challenging. Being both a teacher and a designer allowed the author to be closer to the process of teaching and facilitating a course, which gained her insights which would not have been the same, if she did not experience it herself. According to (Marquez et al., 2015) walking in the user's shoes is a big part of gaining insights and empathy towards them. However, directly experiencing someone's role gains a deeper understanding of the obstacles that can occur on the road. Being a designer simultaneously brings benefits because of the cultivated design mindset which according to the reviewed literature, entails a problem-solving attitude and creating meaningful solutions which resonate with the end-user. As Manzini (2015) states, a design mindset is only usable if it is cultivated. Furthermore, Könings et al. (2005) emphasises the importance of collaboration between students, teachers and designers, to enhance the learning experience of the students. This leads the author to believe that by assuming the roles of both a teacher and a designer at the same time is beneficial to the process.

REFLECTION

Gained Knowledge

Working on three semester projects, interning as a service designer, and writing academic papers during the past two years, has taught this author many things, however the knowledge that she takes home boils down to three things. First and foremost, being a service designer, as proven by the literature review for this thesis, and the practical experience of the author, entails taking on various roles throughout the design process - a designer, a researcher, a facilitator, an advocate, an investigator, to name a few. As service design is a multifaceted field with not only one definition, such is the role of a service designer. A service designer not only designs for multiple touchpoints, but is also an advocate for every stakeholder involved in a service, considering their needs and challenges. Being a service designer is not only about creating services that are tailored and bring value to the stakeholders, and connecting the users with the business and service provider's side, but is also about bringing positive impact in the world.

Second, participatory design approach should be the norm in every field, as it fosters collaboration, innovation and empathy. During this master's programme, and specifically during the thesis project, the author learnt to take a step back even further and understand users from their point of view, looking at them in their natural roles. Teaching service design to women who are also mothers, taught the author to consider aspects of the user's life which are not necessarily a direct connection to the service. In the beginning of the course, the author expected the women to act and have the same motivation to study, as her fellow master's students. However, the author soon came to the realisation that because of their roles as mothers, the SSD course students cannot prioritise education the same way she could, as their priorities were different. This would not have been possible without approaching the thesis with a participatory design approach and mindset.

Lastly, a rich toolbox that can be tweaked and adjusted according to the needs of the project and problem. During this master's programme, the author had to design a service for a music museum and leveraging the learning experience of the visiting students groups by involving more stakeholders; enhancing accessibility in the urban realm by designing a service for the migrant minorities with the goal to create a sense of belonging; and co-designing a teaching guide addressing the needs of immigrant women. All projects are similar - the goal was to create a service, however, the way the methods were used was different. User interviews in the second project included pop-up interviews because the target group was hard to reach, while they were semi-structured formal conversations for the other two. Using service blueprint to visualise the service and connections between the stakeholders, while having the same goal for all three projects, the fidelity of it was different depending on time constraints, actors involved in the service, and the gathered data.

In conclusion, the author is able to design services by incorporating an empathic and participatory approach, using various methods, and deciding how to adjust them to serve the purpose of the project.

CONCLUSION

CONCLUSION

In conclusion, this thesis explored wow service design principles can be leveraged to create a teaching guide tailored to the specific needs of non-EU immigrant women, considering their complex roles as immigrants, women, and mothers, by incorporating a participatory design approach and empathy. The research incorporated a blend of design thinking, participatory design, and Research Through Design (RtD) methodologies to ensure a holistic and empathetic approach. Through this iterative methodology, the thesis provided significant insights into the challenges and needs of immigrant women taking courses at ReDI school.

The literature review revealed that integrating principles of service design pedagogy, a design mindset, participatory design, and gender-sensitive teaching approaches can create inclusive and impactful educational experiences, where students feel heard and appreciated. Teachers who adopt these strategies can better navigate the complexities of teaching, leading to fostering innovation, collaboration, and empathy among their students. This holistic approach not only enhances individual learning outcomes but also prepares students to contribute meaningfully to diverse and dynamic fields.

Additionally, the interviews with immigrant women from the ReDI School provided valuable perspectives on their educational journeys. The interviewed women highly value education for personal and professional growth, despite facing significant challenges such as language barriers, financial constraints, and balancing family responsibilities. Their cultural backgrounds slightly influence their views on education, necessitating tailored and empathetic teaching methods that accommodate their unique circumstances.

The participatory design approach employed in this design experiment ensured that the voices of immigrant women were heard and included in the design process. During the SSD course, the author integrated different approaches and methods to teaching, to establish the ones most suitable for her students. This led to the creation of a teaching guide that is deeply empathetic to the needs and challenges of its users. The thesis also highlights the importance of involving students in the educational design process to make learning more relevant and engaging, as well as create a feeling of empowerment, and a sense of ownership.

In summary, this thesis demonstrated how combining service design principles, and a participatory design approach can enhance the learning experience and outcomes of non-EU immigrant women who take courses provided by ReDI school, by addressing their complex roles as mothers, women, and migrants, as well as their challenges and needs.

REFERENCES

Ministry of Immigration and Integration . (2022). INTERNATIONAL MIGRATION -DENMARK. https://uim.dk/media/11385/international-migration-denmark-2022.pdf

Aalborg University. (n.d.). Service Systems Design - Master degree. Aalborg University. Retrieved May 14, 2024, from https://www.en.aau.dk/education/master/service-systems-design#

Aalborg University. (2023). Master's Thesis (2023/2024). Moduler.aau.dk. https://moduler.aau.dk/course/2023-2024/MSNSSDM4231

Agadjanian, V., Yabiku, S. T., & Cau, B. (2011). Men's Migration and Women's Fertility in Rural Mozambique. Demography, 48(3), 1029–1048. https://doi.org/10.1007/s13524-011-0039-y

Andreasen, M. M., Hansen, C. T., & Cash, P. (2015). Conceptual Design. Springer International Publishing. https://doi.org/10.1007/978-3-319-19839-2

Atkinson, P. (2017). Design for Non-Designers. The Design Journal, 20(3), 303–305. https://doi.org/10.1080/14606925.2017.1303299

Auerbach, E. (1992). Making Meaning, Making Change (pp. 10–15). Delta Publishing. (Original work published 1992)

Bardzell, S. (2010). Feminist HCI: taking stock and outlining an agenda for design. Proceedings of the 28th International Conference on Human Factors in Computing Systems - CHI '10, 1301–1310. https://doi.org/10.1145/1753326.1753521

Bay Atlantic University. (2021, September 27). 8 Types of Learning Styles: How Do Students Learn Best? Bay Atlantic University; Bay Atlantic University. https://bau.edu/blog/types-of-learning-styles/

Bitner, M. J., Ostrom, A. L., & Morgan, F. N. (2008). Service blueprinting: A practical technique for service innovation. California Management Review, 50(3), 66–94. https://doi.org/10.2307/41166446

Brew, C. R. (2002). Kolb's Learning Style Instrument: Sensitive to Gender. Educational and Psychological Measurement, 62(2), 373–390. https://doi.org/10.1177/0013164402062002011

Brown, T. (n.d.). Design Thinking Frequently Asked Questions (FAQ). IDEO | Design Thinking. https://designthinking.ideo.com/faq/how-do-people-define-design-thinking

Cameron, M., Forsyth, A., Green, W. A., Lu, H., McGirr, P., Owens, P. E., & Stoltz, R. (2001). Learning through Service: The Community Design Studio. College Teaching, 49(3), 105–113. https://doi.org/10.1080/87567550109595860

Cattaneo, L. B., & Chapman, A. R. (2010). The process of empowerment: A model for use in research and practice. American Psychologist, 65(7), 646–659. https://doi.org/10.1037/a0018854

Checkoway, B. (1997). Reinventing the Research University for Public Service. Journal of Planning Literature, 11(3), 307–319. https://doi.org/10.1177/088541229701100301

Clatworthy, S. (2012). Service innovation through touch-points: the AT-ONE touch-point cards. 060, 25–38.

Coffield, F., Moseley, D., Hall, E., & Ecclestone, K. (2004). Learning styles and pedagogy in post-16 learning.

REFERENCES

Dam, R. F. (2023, November). 5 Stages in the Design Thinking Process. The Interaction Design Foundation. https://www.interaction-design.org/literature/article/5-stages-in-the-design-thinking-process

Dam, R., & Siang, T. (2017, March 21). Define and Frame Your Design Challenge by Creating Your Point Of View and Ask “How Might We.” The Interaction Design Foundation; UX courses. https://www.interaction-design.org/literature/article/define-and-frame-your-design-challenge-by-creating-your-point-of-view-and-ask-how-might-we

Danmarks Statistik . (2019, November). Indvandrere i Danmark 2019 . DST. https://www.dst.dk/Site/Dst/Udgivelser/GetPubFile.aspx?id=29446&sid=indv2019

De Götzen, A., Morelli, N., & Grani, F. (2014). Challenges and Perspectives in Service Design Curricula: The Case of the Service Systems Design Master of Aalborg University in Copenhagen. 099, 394–400.

Deding, M., & Jakobsen, V. (2008). EMPLOYMENT AMONG IMMIGRANT WOMEN AND MEN IN DENMARK RESEARCH DEPARTMENT OF EMPLOYMENT AND INTEGRATION -THE ROLE OF ATTITUDES. https://www.vive.dk/media/pure/3917/271299

Demirbas, O. O., & Demirkan, H. (2007). Learning styles of design students and the relationship of academic performance and gender in design education. Learning and Instruction, 17(3), 345–359. https://doi.org/10.1016/j.learninstruc.2007.02.007

Denmark, D., Nusche, G., Wurzburg, B., & Naughton. (2010). OECD Reviews of Migrant Education. https://www.oecd.org/denmark/44855206.pdf

Denmark: Migration flow 2020. (2024, February). Statista. https://www.statista.com/statistics/575189/migration-flow-in-denmark/

Ding, S., de Bont, C. J. P. M., Cockbill, S., & Zhou, Q. (2023). A Review of Service Design Pedagogy to Identify Potential Added Value to Product Innovation in Higher Education. Sustainability, 15(21), 15530. https://doi.org/10.3390/su152115530

Education and training of migrant women: What works? (2024, May 7). Eige.europa.eu. https://eige.europa.eu/newsroom/news/education-and-training-migrant-women-what-works?language_content_entity=en

Foster, M. K. (2019). Design Thinking: a Creative Approach to Problem Solving. Management Teaching Review, 6(2), 237929811987146. https://doi.org/10.1177/2379298119871468

Freire, P. (2005). Pedagogy Of The Oppressed: 30Th Anniversary Edition; Trans. By Myra Bergman Ramos. Editorial: New York Continuum.

Frye, D. (1999). Participatory Education as a Critical Framework for an Immigrant Women’s ESL Class. TESOL Quarterly, 33(3), 501–505. https://doi.org/10.2307/3587676

Ghosh, S., Surjadjaja, H., & Antony, J. (2004). Optimisation of the determinants of e-service operations. Business Process Management Journal, 10(6), 616–635. https://doi.org/10.1108/14637150410567848

Gibbons, S. (2018a, January 14). Empathy mapping: The first step in design thinking. Nielsen Norman Group. https://www.nngroup.com/articles/empathy-mapping/

REFERENCES

Gibbons, S. (2018b, December 9). Journey Mapping 101. Nielsen Norman Group. https://www.nngroup.com/articles/journey-mapping-101/

Gibbons, S. (2019, March 24). User Need Statements: The “Define” Stage in Design Thinking. Nielsen Norman Group. https://www.nngroup.com/articles/user-need-statements/

Glukhovskyy, A. (2024, March 24). Design Thinking Revolution: A Guide to the Key Principles and Techniques. Growthtribe.io. https://growthtribe.io/blog/design-thinking

Gollwitzer, P. M. (2012). Mindset Theory of Action Phases. Handbook of Theories of Social Psychology: Volume 1, 526–546. https://doi.org/10.4135/9781446249215.n26

Hamidon , N. A. binti . (2015). Study on Students Learning Style According to Gender Factor. Journal of Culture, Society and Development, 8(2422-8400), 20–22. https://core.ac.uk/download/pdf/234690991.pdf

Harley, A. (2015, February 16). Personas make users memorable for product team members. Nielsen Norman Group. https://www.nngroup.com/articles/persona/

Hill, P. (1999). Tangibles, Intangibles and Services: A New Taxonomy for the Classification of Output. The Canadian Journal of Economics / Revue Canadienne D’Economique, 32(2), 426–446. https://doi.org/10.2307/136430

Ho, D. K., Ma, J., & Lee, Y. (2011). Empathy @ design research: a phenomenological study on young people experiencing participatory design for social inclusion. CoDesign, 7(2), 95–106. https://doi.org/10.1080/15710882.2011.609893

Hwang, T., & Fellow, R. (2012). Participatory Design toolkit. https://www.greencommunitiesonline.org/sites/default/files/participatory-design-toolkit.pdf

IDEO. (n.d.). Design Thinking Frequently Asked Questions (FAQ).

IDEO | Design Thinking. https://designthinking.ideo.com/faq/how-do-people-define-design-thinking

IDEO. (2024). IDEO Design Thinking. IDEO | Design Thinking; IDEO. https://designthinking.ideo.com/

IDF. (2024). What are user interviews? The Interaction Design Foundation. https://www.interaction-design.org/literature/topics/user-interviews

Interaction Design Foundation. (n.d.-a). How Might We questions. The Interaction Design Foundation. https://www.interaction-design.org/literature/topics/how-might-we

Interaction Design Foundation. (n.d.-b). Service Design: How to Design Integrated Service Experiences. The Interaction Design Foundation. https://www.interaction-design.org/courses/service-design-how-to-design-integrated-service-experiences

Interaction Design Foundation. (2021, March). Design Thinking: The Beginner’s Guide. The Interaction Design Foundation. https://www.interaction-design.org/courses/design-thinking-the-beginner-s-guide?r=radina-antonova

J.J. Daalhuizen. (2014). Method Usage in Design : How methods function as mental tools for designers. https://doi.org/10.4233/uuid:4ac01165-c6b5-4057-a2fe-3418907f251e

REFERENCES

Jørgensen, U., Lindegaard, H. M., & Rosenqvist, T. (2011). ENGAGING ACTORS IN CO-DESIGNING HETEROGENEOUS INNOVATIONS. 453–464.

Kahn, K. B. (2018). Understanding Innovation. Business Horizons, 61(3), 453–460. https://doi.org/10.1016/j.bushor.2018.01.011

Kim, K. H., & Pierce, R. A. (2013). Convergent Versus Divergent Thinking. Encyclopedia of Creativity, Invention, Innovation and Entrepreneurship, 245–250. https://doi.org/10.1007/978-1-4614-3858-8_22

Kolb, D. A., Hay Resources Direct, & Hay Group. (2007). The Kolb learning style inventory. Hay Resources Direct.

Kolmos, A., Du, X., Jette Egelund Holgaard, & Lars Peter Jensen. (2008). Facilitation in a PBL environment.

Kolmos, A., Flemming , F., & Lone , K. (2004). The Aalborg PBL Model: progress, diversity and challenges. In Aalborg University's Research Portal. Aalborg Universitetsforlag. https://vbn.aau.dk/en/publications/the-aalborg-pbl-model-progress-diversity-and-challenges

Könings, K. D., Brand-Gruwel, S., & Merriënboer, J. J. G. (2005). Towards more powerful learning environments through combining the perspectives of designers, teachers, and students. British Journal of Educational Psychology, 75(4), 645–660. https://doi.org/10.1348/000709905x43616

Könings, K. D., Brand-Gruwel, S., & van Merriënboer, J. J. G. (2011). The match between students' lesson perceptions and preferences: relations with student characteristics and the importance of motivation. Educational Research, 53(4), 439–457. https://doi.org/10.1080/00131881.2011.625155

Könings, K. D., Seidel, T., & van Merriënboer, J. J. G. (2013). Participatory design of learning environments: integrating perspectives of students, teachers, and designers. Instructional Science, 42(1), 1–9. https://doi.org/10.1007/s11251-013-9305-2

Kostopoulos, G., Gounaris, S., & Boukis, A. (2012). Service blueprinting effectiveness: drivers of success. Managing Service Quality: An International Journal, 22(6), 580–591. https://doi.org/10.1108/09604521211287552

Kouprie, M., & Visser, F. S. (2009). A framework for empathy in design: stepping into and out of the user's life. Journal of Engineering Design, 20(5), 437–448. https://doi.org/10.1080/09544820902875033

KVINFO. (n.d.). Integration and employment. KVINFO. Retrieved May 6, 2024, from https://kvinfo.dk/integration-og-beskaeftigelse/?lang=en#:~:text=The%20employment%20rate%20for%20female

Manzini, E. (2015). Design, when everybody designs : an introduction to design for social innovation. Mit Press, Cop.

Marantika, J. E. R. (2022). The Relationship between Learning Styles, Gender and Learning Outcomes. Cypriot Journal of Educational Sciences, 17(1), 56–67. https://eric.ed.gov/?id=EJ1332484

Marquez, J. J., Downey, A., & Clement, R. (2015). Walking a Mile in the User's Shoes: Customer Journey Mapping as a Method to Understanding the User Experience. Internet Reference Services Quarterly, 20(3-4), 135–150. https://doi.org/10.1080/10875301.2015.1107000

Micheli, P., Wilner, S. J. S., Bhatti, S. H., Mura, M., & Beverland, M. B. (2019). Doing Design Thinking: Conceptual Review, Synthesis, and Research Agenda. Journal of Product Innovation Management, 36(2), 124–148. https://doi.org/10.1111/jpim.12466

REFERENCES

Mirzaie, N., & Parlato, C. (n.d.). SDN | Desirable Traits: Educating for an Evolving Service Design Practice. Www.service-Design-Network.org. Retrieved May 14, 2024, from https://www.service-design-network.org/community-knowledge/desirable-traits-educating-for-an-evolving-service-design-practice

Mitra, D. L. (2004). The Significance of Students: Can Increasing "Student Voice" in Schools Lead to Gains in Youth Development?. Teachers College Record, 106(4), 651–688. https://doi.org/10.1111/j.1467-9620.2004.00354.x

Morelli, N., Amalia De Götzen, & Luca Simeone. (2020). Service Design Capabilities. Springer.

Morelli, N., & Tollestrup, C. (2007). New representation techniques for designing in a systemic perspective. Nordes. https://doi.org/10.21606/nordes.2007.022

Norman, D. (2013). The Design of Everyday Things. Mit Press. https://ia902800.us.archive.org/3/items/thedesignofeverydaythingsbydonnorman/The%20Design%20of%20Everyday%20Things%20by%20Don%20Norman.pdf (Original work published 1988)

O'Donoghue, J. (2022, December 15). The Stanford Design Thinking Process. Make:Iterate. https://makeiterate.com/the-stanford-design-thinking-process/

Penuel, W. R., Fishman, B. J., Haugan Cheng, B., & Sabelli, N. (2011). Organizing Research and Development at the Intersection of Learning, Implementation, and Design. Educational Researcher, 40(7), 331–337. https://doi.org/10.3102/0013189x11421826

Perkins, D. D., & Zimmerman, M. A. (1995). Empowerment theory, research, and application. American Journal of Community Psychology, 23(5), 569–579. https://doi.org/10.1007/bf02506982

Prebanić, K. R., & Vukomanović, M. (2023). Exploring Stakeholder Engagement Process as the Success Factor for Infrastructure Projects. Buildings, 13(7), 1785. mdpi. https://doi.org/10.3390/buildings13071785

Rabinowitz, P. (2018). Identifying and analyzing stakeholders and their interests. Community Tool Box. https://ctb.ku.edu/en/table-of-contents/participation/encouraging-involvement/identify-stakeholders/main

ReDI School Copenhagen. (n.d.). ReDI School. Retrieved April 22, 2024, from https://www.redi-school.org/redi-school-copenhagen

Reimann, P. (2010). Design-Based Research. In L. Markauskaite, P. Freebody, & J. Irwin (Eds.), Methodological Choice and Design (pp. 37–50). https://doi.org/10.1007/978-90-481-8933-5_3

Ringe, W.-G., Gullifer, L., & Philippe Théry. (2009). Current issues in European financial and insolvency law : perspectives from France and the UK. In Hart eBooks. Hart. https://doi.org/10.1093/acprof:oso

Robertson, T., & Simonsen, J. (2012). Challenges and Opportunities in Contemporary Participatory Design. Design Issues, 28(3), 3–9. https://doi.org/10.1162/desi_a_00157

Rosala, M. (2021, January 17). Using "How Might We" Questions to Ideate on the Right Problems. Nielsen Norman Group. https://www.nngroup.com/articles/how-might-we-questions/

REFERENCES

Salinas, L., Grimaldi, S., Lujan Escalante, M., Ali, H., Lagedamont, M., & Prendiville, A. (2023). Teaching Service Design: pedagogical reflections. https://ualresearchonline.arts.ac.uk/id/eprint/20075/1/ServDes.2023_teachingSD.pdf

Sanders, E. B.-N. ., & Stappers, P. J. (2008). Co-creation and the new landscapes of design. CoDesign, 4(1), 5–18. https://doi.org/10.1080/15710880701875068

Series, R. C. (2015, June 4). RTD 2015 Provocation by Sir Christopher Frayling Part 1: Research Through Design Evolution. Vimeo. https://vimeo.com/129775325

Severiens, S. E., & Ten Dam, G. T. M. (1994). Gender differences in learning styles: A narrative review and quantitative meta-analysis. Higher Education, 27(4), 487–501. https://doi.org/10.1007/bf01384906

Shostac, L. (1982). How To Design a Service. European Journal of Marketing, 16(1), 49–63. https://www-emerald-com.zorac.aub.aau.dk/insight/content/doi/10.1108/EUM0000000004799/full/pdf?title=how-to-design-a-service

Smeenk, W., Sturm, J., & Eggen, B. (2016). A Comparison of Existing Frameworks Leading to an Empathic Formation Compass for Co-design. International Journal of Design, 13(3), 27–51. https://www.ijdesign.org/index.php/IJDesign/article/view/3406

Smyth, J., & Fasoli, L. (2007). Climbing over the rocks in the road to student engagement and learning in a challenging high school in Australia. Educational Research, 49(3), 273–295. https://doi.org/10.1080/00131880701550565

Stappers, P. J., & Giaccardi, E. (2015). Research through Design. The Interaction Design Foundation; UX courses. https://www.interaction-design.org/literature/book/the-encyclopedia-of-human-computer-interaction-2nd-ed/research-through-design

Statista. (2024, February). Denmark: number of immigrants by gender 2023. Statista. https://www.statista.com/statistics/1306416/number-immigrants-denmark-gender/

Stevens, E. (2023, May 10). How to conduct effective user interviews for UX research. Www.uxdesigninstitute.com. https://www.uxdesigninstitute.com/blog/user-interviews-for-ux-research/

Stickdorn, M., Lawrence, A., Hormess, M., & Schneider, J. (2018). This is service design doing, applying service design thinking in the real world: a practitioners' handbook. Sebastopol Oreilly & Associates Inc.

Stickdorn, M., & Schneider, J. (2012). This is service design thinking : basics, tools, cases. John Wiley & Sons.

Strategists, C. (2023, June 6). The Role of Engaging Stakeholders in Change Management. Change Strategists. https://changestrategists.com/the-role-of-engaging-stakeholders-in-change-management/

Suoheimo, M., Vasques, R., & Rytilahti, P. (2020). Deep Diving into Service Design Problems: Visualizing the Iceberg Model of Design Problems through a Literature Review on the Relation and Role of Service Design with Wicked Problems. The Design Journal, 24(2), 1–21. https://doi.org/10.1080/14606925.2020.1838696

REFERENCES

Syahrir, Mahmud, M., & Salija, K. (n.d.). MALE AND FEMALE STUDENTS' LEARNING STYLES AND THEIR EFFECTS ON EFL ACHIEVEMENTS . /https://eprints.unm.ac.id/14948/1/ARTIKEL.pdf

This is Service Design Doing. (n.d.). #TISDD SEP 2024: ESSENTIALS USA. Www.thisisservicedesigndoing.com. Retrieved May 14, 2024, from https://www.thisisservicedesigndoing.com/school/sep-2024-essentials-usa

Traina, I., & Fracasso, A. (2016). Tips for Teaching the "Service Design Thinking" to Students of Higher Education Institutions. OALib, 03(08), 1–9. https://doi.org/10.4236/oalib.1102932

University of Arts London. (2024, March 21). BA (Hons) Service Design. UAL. https://www.arts.ac.uk/subjects/business-and-management-and-science/undergraduate/ba-hons-service-design-lcc#course-overview

Vargo, S. L., & Lusch, R. (2004). (PDF) Evolving to a New Dominant Logic. Journal of Marketing, 68(1), 1–17. https://www.researchgate.net/publication/272566759_Evolving_to_a_New_Dominant_Logic

Vermunt, J. D., & Verloop, N. (1999). Congruence and friction between learning and teaching. Learning and Instruction, 9, 257–280. https://doi.org/10.1016/S0959-4752(98)00028-0

Zimmerman, J., Stolterman, E., & Forlizzi, J. (2010). An analysis and critique ofResearch through Design. Proceedings of the 8th ACM Conference on Designing Interactive Systems - DIS '10, 310–319. https://doi.org/10.1145/1858171.1858228

Zlotnik, H. (1995). Migration and the Family: The Female Perspective. Asian and Pacific Migration Journal, 4(2-3), 253–271. https://doi.org/10.1177/011719689500400205