Individualisation of a Driver Coaching Service
– Combining Design Ethnography and Service Design to Gain Insights About the Coaches’ Role and Activities

Rebecka Rosenqvist
Maria Wikström

Tutor: Johan Blomkvist
Examiner: Stefan Holmlid
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Abstract

Services surround us every day and companies all over the world have to adapt to the demand of services to make their products more successful and attractive. This master thesis has, on behalf of Scania in Södertälje, Sweden, focused on the service Driver coaching, a service where drivers are dedicated a personal coach who gives regular calls to the drivers. The aim of the thesis was to explore how a driver coaching service could be individualised to each driver. Furthermore, the aim was to develop a design proposal for Driver coaching that creates value for both coaches and drivers.

Three coaches from Sweden, Finland and Norway were observed and interviewed to identify what role the coaches have in the service and all the activities they perform. During the analysis of the ethnographic findings, explorations were made on whether valuable insights can be found by interpreting the data with service design visualisations. A customer journey was created which catalysed the analysis phase and helped to generate insights in which pain points could be identified.

Three important themes that emerged from the insights were individualisation, trust and communication. Insights from the ethnographic findings and the literature review show that a driver coaching service should, in fact, be individualised. The design proposal that was developed enables different arrangements of the service, which fit each driver’s needs and goals, with the help of a driver profile. Conclusions include information about what is important to think about when designing a driver coaching service that is individualised. Lastly, the thesis contributes to research with lessons learned about how ethnographic data can be used in a generative service design process.

Keywords: Scania, driver coaching, service design, design ethnography, visualisations, individualisation, feedback, coaching, driving behaviour, design with intent, observations, coaches, truck drivers, design proposal
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Södertälje in May 2018

Rebecka Rosenqvist

Maria Wikström
List of Figures

Figure 1 - The expected outcome of Scania Driver Services, interpretation of Scania (2017). ..................... 5
Figure 2 - Levels with barriers in responsibility-sharing between teachers and students, interpretation of Nash and Winstone (2017). ......................................................................................................................... 10
Figure 3 - Components of effective feedback. .................................................................................................... 11
Figure 4 - Approaches to influence a behaviour, interpretation of Lockton (2013). ........................................... 13
Figure 5 - Categorisation of visualisation methods, interpretation of Diana, Pacenti and Tassi (2009). ............... 16
Figure 6 - Variables that facilitate frontline employees' adaptive behaviour, interpretation of Gwinner et al. (2005). ........................................................................................................................................ 17
Figure 7 - Overview of the three phases in the thesis process. ........................................................................... 23
Figure 8 - First observation layout ....................................................................................................................... 25
Figure 9 - Second observation layout .................................................................................................................. 25
Figure 10 - Third observation layout. .................................................................................................................. 26
Figure 11 - Pictures from the process of the quote clustering ........................................................................... 27
Figure 12 - Overview of the hierarchy affinity diagram. ...................................................................................... 27
Figure 13 - Clustered needs on a whiteboard. ..................................................................................................... 28
Figure 14 - The word cloud that was created. ...................................................................................................... 28
Figure 15 - Second sketch of the customer journey ........................................................................................ 29
Figure 16 - Third sketch of a customer journey ................................................................................................... 30
Figure 17 - Design with Intent cards ................................................................................................................... 31
Figure 18 - Ideas written on Post-it notes and sorted based on target behaviours ............................................ 31
Figure 19 - An overview of all the created ideas in groups ................................................................................ 32
Figure 20 - An interpretation of the observed driver coaching service process. .............................................. 34
Figure 21 - As-is customer journey. The second half can be seen on the next page. ........................................ 36
Figure 22 - Six factors that affect the amount of comments that the coach includes in the report. ... 39
Figure 23 - Elements that make up the coaching calls. ....................................................................................... 41
Figure 24 - Six factors that make the coach consider more data during preparation and call. ....................... 43
Figure 25 - Driver profile in CT .......................................................................................................................... 50
Figure 26 - The to-be service process with FA added as a possible touchpoint. ................................................ 52
Figure 27 - CT start page with overview of coached drivers. ............................................................................ 54
Figure 28 - Coaching over time, current vs individualised Driver coaching service ....................................... 55
Figure 29 - To-be customer journey. The second half can be seen on the next page. ...................................... 56

List of Tables

Table 1 - Number of coaching sessions during the observations ................................................................. 26
Table 2 - Summarised information about the coaches that participated in the ethnographic study... 33
Table 3 - Descriptions of the six concepts .................................................................................................... 49
# Nomenclature

## Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT</td>
<td>Coaching Tool</td>
</tr>
<tr>
<td>FA</td>
<td>Fleet Application</td>
</tr>
<tr>
<td>FMP</td>
<td>Fleet Management Portal</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
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## Definitions

<table>
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<tr>
<th>Term</th>
<th>Definition</th>
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<tr>
<td>As-is customer journey</td>
<td>A customer journey that presents the current state</td>
</tr>
<tr>
<td>Coaching session</td>
<td>The coach’s preparations for the call, the call itself and the documentation after the call</td>
</tr>
<tr>
<td>CT</td>
<td>A tool that Scania provides to the coaches</td>
</tr>
<tr>
<td>Design ethnography</td>
<td>A set of methods to create an understanding for a particular environment or for the people that will use the future product or service</td>
</tr>
<tr>
<td>Driver</td>
<td>Truck driver</td>
</tr>
<tr>
<td>FA</td>
<td>An application from Scania that drivers and transport companies can use</td>
</tr>
<tr>
<td>FMP</td>
<td>A tool that Scania provides to transport companies</td>
</tr>
<tr>
<td>Generative design</td>
<td>A process that creates tangible results</td>
</tr>
<tr>
<td>Markets</td>
<td>Geographical areas, countries</td>
</tr>
<tr>
<td>Pain point</td>
<td>The customers’ or service actors’ perceived problems with a service or a product</td>
</tr>
<tr>
<td>Slack</td>
<td>A cloud-based set of proprietary team collaboration tools and services, like group chats and file sharing</td>
</tr>
<tr>
<td>To-be customer journey</td>
<td>A customer journey that presents a possible future state</td>
</tr>
<tr>
<td>Touchpoint</td>
<td>A touchpoint can be explained in many ways but a common explanation is that every contact point between a customer and the service provider is a touchpoint</td>
</tr>
<tr>
<td>Transport company</td>
<td>A company that serves as a haulier, not Scania</td>
</tr>
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1 Introduction

This chapter aims to give the reader understanding of why the thesis is conducted and what it strives to investigate. The chapter gives a short introduction to the background, aim, objectives, research questions, delimitations, limitations and the report outline.

Services surround us every day and the sector makes up for a big part of the global economy. Therefore, companies all over the world have to adapt to the demand for services to make their products more successful and attractive (Moritz 2005). For example, the transport industry has reached a point where they need to expand their business to adapt to the market demands. One of the transport companies that strives towards meeting the demands is Scania, who is currently on a journey to become more service-oriented; instead of just delivering products, they are also providing solutions that help their customers be sustainable and profitable. To help their customers, companies should learn more about their users and employees to create a successful service that can compete on the market.

To create services that can compete on the market, the design profession has broadened and designers are more often hired for these kinds of service solutions. These designers are constantly getting influenced by the fields of ethnography and psychology to find the customers’ needs and pains (Sanders & Stappers 2008). Design ethnography is used for understanding the users or employees, but even though design ethnography creates a lot of data, it has a downside. Researchers are discussing that it is time-consuming to conduct an ethnographic study and sometimes limited access to informants can make it hard. Consequently, different approaches are being used to make the studies less time-consuming. Millen (2000) proposes a technique called rapid ethnography, which is an evolving set of field practices for a team to understand the users faster and cheaper without sacrificing the quality of the observations. However, it is still hard to make the process of understanding and analysing the collected data quicker (Millen 2000).

This master thesis will, on behalf of Scania in Södertälje, focus on Driver coaching, a service where drivers are dedicated a personal coach who gives regular calls to the drivers. The overall aim of the service is to create value for the customer. Trained and coached drivers will result in significant fuel savings. Furthermore, it will reduce the wear-and-tear of the vehicles and increase road safety by drivers being more relaxed and foresighted while driving. Scania is interested in finding out whether coaching can be more effective and create more value for the customer. Scania has noticed that the coaches within the service use different approaches when it comes to coaching, but it has not been verified how and why. Furthermore, Scania has a lot of questions regarding the arrangement of the service, mainly how to tailor it to every individual’s specific needs. However, Scania is currently lacking scientific evidence of how coaching is best adapted to different people and if individualised coaching can be beneficial for both coaches and drivers. To be able to answer the questions that Scania has, the coaches’ perspective on the service needs to be further investigated. If Scania knows more about their coaches and makes the service better for them, there is a possibility that the service gets more attractive to the customers, which in turn will strengthen the Scania brand.

Service design is the used approach for the process. The thesis will, with methods from design ethnography, investigate how the coaches work today, what touchpoints the service has and what pains the coaches perceive within the service. According to the findings from a workshop with service designers, performed by Segelström, Rajmakers and Holmlid (2009), it might be difficult to practically apply ethnography in service design processes. The authors identified that it can be difficult to inspire idea generation based on ethnographic data. Therefore, it is of interest to find out what can be learned by doing generative design work based on ethnographic data when it comes to creating a design proposal for a driver coaching service.
1.1 Aim and Objective

The aim of the thesis is to explore how a driver coaching service could be individualised to each driver. Furthermore, the aim is to develop a design proposal for Scania’s service Driver coaching that creates value for both the coaches and the drivers.

The thesis objective is to use a service design approach and to apply design ethnography methods to gain knowledge about the coaches’ role in Driver coaching, the service touchpoints and the activities the coaches perform. Based on the ethnographic findings, service design visualisations will be created to facilitate communication between the researchers and Scania’s stakeholders to create a common understanding of the coaches’ role and activities. Through ideation, problems will be solved and opportunities will be seized to create a design proposal that individualises Driver coaching.

This thesis will further contribute to research in how data gathered by design ethnography can be used in a generative service design process.

1.2 Research Questions

To fulfil the aim of the thesis, the following research questions will be answered:

RQ1 – What can design ethnography reveal about the coaches’ role and the performed activities in a driver coaching service?

The research question will give an answer to what role the coaches have in Scania’s service Driver coaching. It includes identifying activities performed by coaches, examining which activities that are performed by all coaches during every coaching session and which ones that vary. The focus will also be to find out what factors influence the activities to vary. Furthermore, the pain points for coaches will be identified along with activities that are needed to create customer value.

RQ2 – What factors are important when individualising a driver coaching service?

The research question will provide important factors to keep in mind when designing a driver coaching service that will be individualised to each driver.

RQ3 – What lessons can be learned by doing generative design work based on ethnographic data?

The research question will contribute with knowledge about how to do generative design work, for example service design visualisations and concepts, based on ethnographic data, and what insights and solutions can be found when using this approach.

1.3 Limitations and Delimitations

The thesis has time and resources limitations which affect the choices of delimitations. One of the delimitations is the assumption that the transport companies view Driver coaching as something of value. Therefore, focus will be to build a stronger relationship and acknowledgement between the coach and the driver by examining the interaction between them. Moreover, the ethnographic study will include the work of one to two coaches from each market in Sweden, Norway and Finland. The choice of markets is partly based on geographic proximity to the head office of Scania in Södertälje, Sweden. Furthermore, Driver coaching has not been as explored in these markets, which is another reason for the choice of markets. The ethnographic study will only clarify how these coaches work with Driver coaching and not the other everyday tasks they deal with. The insights will be compared with limited consideration given to cultural differences.
Regarding the design proposal, one delimitation is that it will not deal with the design of the tool that
the coaches use. Furthermore, the proposal will not be evaluated and steps towards implementation
will not be suggested, meaning that the sales process and the pricing of the service will be excluded.

1.4 Report Outline

This thesis consists of seven chapters briefly described below:

1. **Introduction** – Introduces the field of study and what the thesis aims to accomplish.
2. **Background** – Provides the reader with background information about Scania and their service
   *Driver coaching*. The chapter also contains results from a previous study that provides useful
   information to this thesis.
3. **Theory** – Describes theories which contribute to knowledge about areas such as coaching,
   feedback and motivation. At the end of the chapter, theories for the methods used in the thesis
   can be found.
4. **Method** – Explains the process of the thesis and how the work was conducted.
5. **Results** – Presents the results of the methods used in the thesis.
6. **Discussion** – Considers the used methods and the results regarding advantages and
   disadvantages, and further parallels to the theories in chapter 3 are drawn.
7. **Conclusions** – Summarises the results from the thesis by answering the research questions.
   Possible studies to conduct in the future are also proposed.
2 Background

This chapter describes the company Scania and the Driver coaching service that this thesis aims to improve. Please note, if references are missing it is information about Scania Driver Services that comes from unpublished documents from Scania and from interviews with Scania employees. Furthermore, previous results from a master thesis, written for Scania, are summarised and the results are used in this thesis to broaden the perspective.

2.1 Scania Driver Services

Today Scania has around 300 000 connected vehicles that provide in-depth data on fleet performance to their customers every day. The data can then be connected to Scania’s services and provide a greater knowledge of how drivers and trucks perform. One of the offerings is Scania Driver Services, a solution package consisting of Driver training, Driver support and Driver coaching (Scania 2018b). Driver training aims to improve the driving style of drivers and has shown immediate results. However, changing a behaviour in a long-term perspective is far more complex, see Figure 1. Driver support is an onboard tool where drivers receive real-time feedback on driving style and it is designed with the intent of facilitating the maintenance of the skills obtained during the Driver training, see Figure 1.

To further improve and maintain a good driving behaviour, which means to create a safer and more environmentally friendly way of driving, Driver coaching was introduced. The desired outcome of this service can be seen in Figure 1, where coaching creates a lower and more stable fuel consumption. Within this service, drivers are dedicated a personal coach who motivates and supports the drivers in achieving a behaviour change. The coaches give the drivers regular feedback by phone and the recommendation from Scania is that these calls take place once a month. However, the frequency of the phone calls seems to differ between markets. Since Driver coaching is a monthly subscription, the customers expect to receive service value accordingly (Scania 2018a).

![Figure 1](image.png)

*Figure 1 - The expected outcome of Scania Driver Services, interpretation of Scania (2017).*

A computer system creates driving behaviour grades in different categories based on data, from the vehicle, that the coaches can analyse. The feedback during the coaching sessions is based on reports that the drivers receive from the coaches in advance, preferably a week. The coaches create the reports in Scania’s Coaching tool (CT). CT provides scoring from E to A in six categories reflecting the driving behaviour: idling, speeding, anticipation, driving with cruise control, coasting and hill driving (Scania 2017). In CT, the coaches can choose which categories to include in the reports, but the most common
way of working seems to be to include them all. The reports also include trip data and room for the coaches to leave comments to support the continued progress. The drivers can also view their grades in an application called Scania Fleet (FA). The application provides a more daily showcase of the grades while the coaching reports summarise the grades by week and also show the grades achieved during previous weeks.

When it comes to the coaches, they are either employees of Scania, consultants or employees at the transport companies. Some coaches have experience from being professional drivers, while others are educated coaches with no previous truck driving experience. Scania offers a training session, Train the Coach, where they provide information about coaching for the coaches. How many drivers the coaches are responsible for varies amongst coaches and markets. It has emerged that some coaches do extensive preparation work before the calls and that some create their own Excel spreadsheets with information about drivers. Additionally, there are indications from Scania employees that the coaches want to have more information about how the grading system works. Some coaches use Driver Evaluation in the Fleet Management Portal (FMP), which is intended for the customers to manage their fleets, to find more data about the drivers before the session starts.

2.2 Previous Study

The following section is a summary of a master thesis, henceforth referred to as a study, for Scania made in the spring of 2017 by Hantosí Albertsson (In press), where she conducted research about a triadic value proposition in the transport segment. Hantosí Albertsson (In press) investigated the triad of the actors within Scania Driver Services today. These actors were the transport company, the drivers and Scania which leads to the fact that the coaches never were involved in the study. Hantosí Albertsson (In press) gathered insights from the actors by conducting seven semi-structured telephone interviews with drivers, two observation sessions with drivers and one workshop together with the CEO and a driver from the same transport company.

When analysing the insights, Hantosí Albertsson (In press) made an affinity diagram where three themes of insights were revealed. The first theme was the fact that drivers lacked the necessary means and knowledge to understand the impact their actions have on the transport company’s economy. Some drivers, with extensive economic knowledge, said that it was a motivation for them to improve themselves to hopefully get a positive impact on their employment, while others did not understand the point of it. The CEO stated that multiple efforts to be more transparent about the economic situation of the company had been made to increase the drivers’ motivation. With this theme in mind, transport companies not only have to ensure that they improve the drivers’ driving behaviour, but also have to ensure that the drivers understand the economic motivations of the companies.

Another theme was trustworthiness, meaning for example that the coaching session could suffer from opposing aims between the coach and the driver. The opposing aims could be a result from lack of communication between the transport company and the coach, but also lack of personal chemistry between the coach and the driver. For example, some drivers expressed that they sometimes felt like the coach was not supporting the goals and needs of the company, leading to that the sense of trust disappeared. Sometimes even the communication between the company’s CEO and the drivers could be poor, making the drivers feel insignificant. The trust issue was also found within the Driver support tools. The drivers could lack trust in the different real-time feedback and grades they got which made them feel unsure about the supporting tools.

The last theme was transparency, which was found to be both a challenge and an issue. The drivers lacked understanding of how the grades were calculated, and they expressed that they did not trust the system. Of course, the transparency theme was also related to the drivers’ lack of understanding for the transport company’s economy. Furthermore, the transparency was stated to be an asset in all
communication channels. It was stated that transparency was essential to the drivers when creating a standard for how issues caused by unexpected events and change of plans were handled daily. When it came to lack of transparency, it led to misunderstandings between actors that could, for example, involve unknown knowledge of goals, aims and motivations of others. The lack of transparency was also, as stated above, something that could lead to the drivers feeling indifferent and, in worst case, invisible to the transport company. The feeling of invisibility could in some cases cause the drivers to pay no attention to fuel consumption and show little care for the vehicle.

Hantosi Albertsson (In press), presented a list of design challenges that the Driver Services could support, and below are the challenges that were relevant to this thesis.

How can Scania:
- strengthen the driver’s experience of the manufacturer’s brand?
- enable a clearer understanding of feedback provided by current Driver service offering?
- ensure that the driver feels important and seen by the manufacturer as well as the transport company?
- ensure the quality of coaching conversations?

Hantosi Albertsson (In press) also presented the result from the workshop that shows the driver’s and the CEO’s thoughts on coaching. The result shows that coaching makes it much easier to reach one’s goals and it supports drivers to reach their full potential. The driver felt that coaching supports that knowledge is gained in how to improve driving skills and thought it was a good aid to improve one’s driving style. However, even though the coaching service could contribute to drivers feeling valuable for their company, they still wanted to feel more recognised by the employer. In the last part of the study, Hantosi Albertsson (In press) proposed a design concept for a triadic value proposition. The proposed design concept was a personality test for drivers that could be beneficial for all actors in the triad.
3 Theory

The following chapter describes the scientific theories used in the thesis. It consists of theories within coaching, feedback and motivation. Furthermore, it describes the approach of service design and the methods which are used in this thesis.

3.1 Coaching

Blomquist and Röding (2010), scientists within the field of leadership, claim that the essence of being a coach is about listening with interest and bringing the conversation further by asking questions, not telling how to do something. This turns the focus to the conversation, which can take place in any setting, where the importance is always the interaction between humans. The coach needs to ask questions that make the coached person think, reflect and answer the questions in a way that makes them understand how to improve themselves. It is based on the philosophy that the coached person already has the knowledge or answers, but have a hard time finding them, and a coach can help by developing the coached person’s potential and ability through a structured conversation. The coach can only help when there are professional trust and equality between the coach and the coached person (Blomquist & Röding 2010).

Gjerde (2012) mentions that there are three ways to listen, that a coach needs to think about: reactive listening, objective listening and global listening. The first one should be avoided and the last two are the recommended ones that a coach should use to get results. Reactive listening is when a coach focuses on the coach’s own stories and seek any chance to put the coach’s own perspective to what the coached person is telling. The author claims that reactive listening is not a good way to get results since the coached person only learns what the coach would have done. Then, there is objective listening, where the coach is more open-minded and wants to know what words and actions mean to the narrator. Lastly, the author explains global listening which means that the coach uses all senses like sight, smell, tactile and intuition. Here, the coach puts words to what the coach hears or feels and takes notes when the tone of voice changes for the coached person (Gjerde 2012).

According to the results of a study about job coaches, by Höglund and Näs (2010), a coach can help people to think positively and create new thoughts and ideas by strengthening their confidence. The authors also claim that it does not matter if the coach is an internal or external actor to the company, to give a motivational change in a person. The authors further express the importance of feedback to motivate a better performance and reach a goal when coaching a person.

3.1.1 Feedback

Hattie and Timperley (2007) define feedback as information about a person’s performance or understanding, provided by an agent. The agent can be, for example, a teacher, a parent, a book or an experience. The authors further claim that the information, in turn, can be of a corrective or encouraging nature, or it can provide the receiver with an alternative strategy or clarification of ideas. The authors continue to claim that the purpose of feedback is to reduce the discrepancies that exist between a student’s current performance, understanding and the desired goal. Increasing effort, motivation and engagement can help to fill the gap between what is understood and what is aimed to be understood in feedback (Hattie & Timperley 2007). Feedback has also proven to be a powerful tool for changing a behaviour (Stern 2011; Fischer 2008). It is believed to be effective since it focuses on the individual, providing connections to the behaviour and tangible rewards instead of just providing simple information (Stern 2011). Everyone needs feedback and it is a prerequisite to being able to learn and evolve and it is a type of dialogue built on respect and active listening (Blomquist & Röding 2010).
Something to remember when using feedback is the fact that it will only inform and that it does not necessarily motivate unless there is a strong goal that the user has (Mccalley & Midden 2002; He, Greenberg & Huang 2010). Nash and Winstone (2017) write about proactive recipience of feedback in higher education. The authors claim that feedback alone, no matter how high the quality, will never lead to student improvement. For feedback to have an effect, students need to actively receive, digest and act upon it. Nash and Winstone (2017) highlight the need for responsibility-sharing, between a teacher and a student, when it comes to giving and receiving feedback. When looking at students in higher education, they are more often viewed as passive recipients of a service that they have paid for. The authors write about the transmission view of feedback which describes how feedback is delivered from expert to novice in a linear process. This linear process causes excessive workload for the teacher who becomes solely accountable for the delivered results (Nash & Winstone 2017).

During a focus group conducted with psychology students, Nash and Winstone (2017) identified four barriers that prevent students from engaging with the feedback they receive: awareness, cognisance, agency and volition. The barriers can be seen in Figure 2 together with the authors’ assumptions of whose responsibility it is to overcome them. The first barrier is awareness which means that students cannot engage with feedback if they do not know what the feedback means and what the feedback should be used for. Nash and Winstone (2017) believe that teachers have the main responsibility for overcoming this barrier since they need to ensure that the feedback they give is clear. However, students also have some responsibility to seek clarification and make sure that they understand the feedback.

The second barrier that Nash and Winstone (2017) identified is cognisance. Students need to be aware of strategies they can use to implement the feedback. Teachers are responsible for providing the students with some strategies while the students are responsible for choosing which strategy to use and trying out new ones (Nash & Winstone 2017).

The third barrier is agency. It can be a barrier if students feel insufficiently equipped to deal with feedback and that dealing with it would not make a difference. Nash and Winstone (2017) suggest that teachers can help the students by providing feedback that can be transferred to other situations and exemplifying how it can be done. However, students themselves need to synthesize the feedback to transfer it from one situation to the other and they need to realise that improvement can take time to achieve.
The fourth barrier that Nash and Winstone (2017) identified is volition. Students can lack motivation, for example to invest the time, to engage with feedback. Hattie and Timperley (2007) explain that the effort costs can affect students’ willingness to invest effort related to dealing with feedback. According to Nash and Winstone (2017), teachers are responsible for providing feedback in a motivating way, so that improvement feels achievable, and making sure that there are several opportunities for dialogue. Students are responsible for developing a commitment to change in response to feedback.

Nash and Winstone (2017) also believe that the barriers at the upper levels in Figure 2 need to partly be solved in order to solve the ones at the lower levels. To be motivated the students must understand their feedback, know how to use it and believe that they can improve. Even though the overall responsibilities are equal between teachers and students, the teachers are the ones who have the greatest possibility to make the students start engaging with feedback, since the teachers are the ones who have the main responsibility at the upper levels. By increasing the students’ volition, a cycle is created, which makes it easier to further overcome the barriers, see Figure 2 (Nash & Winstone 2017).

Hattie and Timperley (2007) propose that teachers can assist students by providing appropriate, challenging and specific goals. Roetting et al. (2003) conducted focus groups with people from the trucking industry. The results show that drivers want specific, constructive, respectful and individualised feedback which supports the proposal, Hattie and Timperley (2007), about specific goals. The results of the focus group also show that drivers want feedback from people they respect and perceive as knowledgeable about the drivers’ job. Hattie and Timperley (2007) write that goals should be specific, since they make it easier for students to focus their attention, and the feedback can also be more focused on the specific goals. Blomquist and Röding (2010) claim that feedback is usually best if you give it orally since it can be discussed, and both the provider and receiver can get an opportunity to ask and clarify questions.

Hattie and Timperley (2007) point out that effective feedback needs to involve feed up, feed back and feed forward, see Figure 3. Feed up corresponds to the question of what the goals are, feed back corresponds to what the progress is towards the goal and feed forward corresponds to what the person should do next to make better progress. It is important that feed forward is not associated with more tasks to do, but rather information leading to greater possibilities for learning (Hattie & Timperley 2007).

When it comes to the timing of feedback, Hattie and Timperley (2007) claim that it depends on how difficult the task is. The more difficult the task is, the more time for processing is needed. Delayed feedback offers a greater degree of processing as opposed to immediate feedback. The authors claim that delayed feedback is unnecessary when the task is easy and the required amount of processing is small. The results of the focus group that Roetting et al. (2003) conducted show that feedback systems should be adapted to the individual preferences since the opinions on timing differed among the drivers. Some drivers wanted the feedback when they requested it, a “pull principle”, and some wanted the feedback delivered to them by the system, a “push principle”, for example at the end of the trip or monthly.
3.2 Design for Motivation

The word motivation can be compared to the French word motif which stands for “encouragement”. Motivation is an attempt to explain the source of one’s behaviours and needs, and it serves as a driver for any activity (Lukianova 2016). Motivation explains why people are doing what they do (Krippendorff 2004). Designers have historically tended to view motivation as something that they cannot directly influence but this view has been proven wrong in motivational research (Bisset & Lockton 2010). When designing for motivation, one needs to investigate how controlled the user feels. The service should not control user behaviour too closely so the users feel constrained. At the same time, too many options or ways can create an equally demotivating experience for the user (Bisset & Lockton 2010).

Blomquist and Röding (2010) claim that effective workplaces depend on the workers’ motivations for the job. They further mention that by sitting down and listening to workers’ needs and goals, one can make the workers more effective. One way can be by setting up personal goals to achieve during a year. The authors mention that talking to each employee about needs and goals every year may not be possible in every workplace but there will always be a way to motivate even the most stubborn person.

To further understand the workers’ motivations and needs, the context plays a big role. One example where context matters can be at an airport. A person on a business trip may have the need for a quick walk through the airport, but if it is a vacation, the same person might want to relax and go shopping instead of stressing (Moritz 2005). The context is something that a manager often forgets to think about; the manager might think that everyone is constantly motivated by salary, when in reality motivation changes in periods (Blomquist & Röding 2010).

As mentioned previously, motivation plays a big role in behaviour. Lockton (2013) claims that design can change a behaviour through encouraging and helping the user. The author mentions a fundamental categorisation about the different approaches to influence a behaviour. The categories are either trying to get people to do something or making them not do it. Lockton (2013) mentions three approaches that one can consider while developing a solution for changing a behaviour: making the target behaviour easier to perform, making the undesired behaviour difficult to perform or trying to get a user to want or not to want to perform the behaviour. The three approaches can be categorised as enabling, constraining or motivating and their relations can be seen in Figure 4.
### 3.2.1 Extrinsic and Intrinsic Motivation

Behaviour change and learning are connected to motivation. When studying these, one has to look at motivation and define the concepts of extrinsic and intrinsic motivation (He, Greenberg & Huang 2010). Extrinsic motivation is, for example, the reason for one’s willingness to achieve goals or obtain results (Krippendorff 2004). These are all affected by extrinsic rewards and induce controlled motivation (Lukianova 2016; Ne Gagné & Deci 2005). Cost-benefit analysis or gamification are examples of methods usually applied when looking for extrinsic motivation for a project or a product (Krippendorff 2004; Fitz-Walter et al. 2017). An extrinsically motivated behaviour is efficient but only in short-term (Bisset & Lockton 2010).

Intrinsic motivation is the opposite of extrinsic and can be explained as the process of one’s engagement in its own terms without thinking about what result or outcome it will have; it is having fun while doing something (Krippendorff 2004). It can be that a worker find the work task interesting, exciting or even fun, which triggers the intrinsic motivation (Blomquist & Röding 2010). Intrinsic motivation is an example of autonomous motivation, which is the highest level of reflection. Intrinsic motivation is about interest and people being volitionally involved with the activity or job (Ne Gagné & Deci 2005). It can be characterised as the attitude “I really want to do it” instead of “I do it because I have to” (Benson & Voller 2014). This kind of attitude is the source of enjoyment and emotional involvement in the activity or artefact (Krippendorff 2004). If a designer consciously intends to design for developing user autonomy it might be the best thing a designer can do to support intrinsic motivation (Bisset 2011).

Activities that are not interesting for a person are not intrinsically motivating and requires extrinsic motivation in the beginning for the activity to be motivating (Ne Gagné & Deci 2005). An individual can go from being extrinsically motivated, doing something just because you have to, to being intrinsically motivated, doing something you want to and think is important to you, and designers can affect this motivation by design (Bisset 2011). An intrinsically motivated behaviour is the ideal if one wants to achieve durability in learning (He, Greenberg & Huang 2010). The self-sustaining behaviour is something that does not have the need for repeated interventions (De Young 1993). Blomquist and
Röding (2010) claim that though it is more effective in the long run to motivate by the intrinsic factors, one can still get good results from extrinsic motivation.

To further create a long-lasting self-sustaining change in behaviour it may require a more personalised attention for the individual (De Young 1993). A self-sustaining change in behaviour can be created by understanding why people want to learn and see what their needs, interests, attitudes and inclinations are since these factors generally have a significant impact on learning outcomes (Lukianova 2016). Motivation is different for everyone and “one size does not fit all” certainly is true when it comes to designing a service or a product (He, Greenberg & Huang 2010).

3.3 Service Design

Services surround us every day and the service sector makes up for 70% of the GDP, which makes it the biggest sector of the economy today. The service sector is affecting the design business which has started to change as a whole; a new field called service design has risen to meet the service revolution (The world Bank 2018; Moritz 2005). Moritz (2005) addresses that the most prominent differences between a product and a service is that a service is performed, not produced, and that a service is intangible compared to a tangible product.

Service design is an interdisciplinary approach with the aim to make services more useful, usable and desirable for clients as well as efficient and effective for organisations (Stickdorn & Schneider 2010; Moritz 2005). The core elements are user-centred, co-creative, sequencing, evidencing and holistic. Service design is about designing with people, not for them, which can be referred to as the term co-production or co-creation (Polaine, Løvlie & Reason 2013). The co-creation approach is the process of planning a service structure together with customers (Segelström 2010). In service design, the users and stakeholders are in the centre of the development through co-creation workshops and inclusive design approaches (Wetter Edman 2011). Blomkvist, Segelström and Holmlid (2011) add that service design takes a general approach that focuses on developing through the involvement of the end-user.

Service design can, for instance, help a company to understand the customer, the market and the insights from the customers’ expectations for the overall experience across all touchpoints over time (Moritz 2005). Methods in service design can help an organisation to create a complete and shared picture of what really provides customer value and service design can help to build bridges across different department teams (Polaine, Løvlie & Reason 2013). Polaine, Løvlie and Reason (2013) further explain that these bridges can help with fixing small glitches in the service that in the end can have a major impact on the level of trust from the customer. If departments design services for themselves there will be a lot of good services, but the connection between them will have gaps visible to the customers in the touchpoints (Polaine, Løvlie & Reason 2013).

Bisset and Lockton (2010) acknowledge that a service design approach, according to psychology literature, has a clear opportunity to support human motivation and learned responses, also called natural reflexes or reactions. Moritz (2005) claims that humans are complicated, have individual needs and expectations and that these factors cannot be standardised. Polaine, Løvlie and Reason (2013) claim that every organisation can individualise services and by that create benefits for both themselves and the customers. Individualisation supports the shift of attention from the masses to the individual which enables new opportunities for organisations to create a more valuable service with more qualitative insights of why a person does something (Polaine, Løvlie & Reason 2013). For example, in a study of a Norwegian insurance company, they discovered that customers wanted consistent communication channels. Consistent communication channels meant that it was more expensive for the company to manage, but they believed that it was worth it because it created a better customer experience. An example like this shows that service value can be considered to be worth more than saving money (Polaine, Løvlie & Reason 2013).
Polaine, Løvlie and Reason (2013) claim that if one is about to improve an existing service, the focus should be on discovering the point of failure in the service, meaning where there is an error occurring and find opportunities to enhance the experience. This focus means that one can look less at unfulfilled needs and more at the service in context and gather insights talking to customers that interact with staff. A service design approach like this can be useful to a project with strict time demands to get data and quickly start designing a great service (Polaine, Løvlie & Reason 2013).

3.3.1  Touchpoint
A frequently used term in service design is touchpoint. A touchpoint can be explained in many ways but a common explanation is that every contact point between a customer and the service provider is a touchpoint (Stickdorn & Schneider 2010). Touchpoint interactions can take place through many channels. It can be channelled through human-human interaction, human-machine interaction and machine-machine interaction (Stickdorn & Schneider 2010). It can also be a more indirect channel like third parties, such as reviews from previous customers that have used the product/service, or through online media (Stickdorn & Schneider 2010).

An example that involves a touchpoint, that Clatworthy (2017) mentions, is about a bank and when a customer wants to know their bank account balance. There are several ways to get that information. It could be by asking someone at the bank, sending a message to the bank from your phone or computer, reading your latest bank statement or by using the ATM. All of these examples are touchpoints, according to Clatworthy (2017), and they appear through different channels, but they are all between the customer and the bank. Clatworthy (2017) also mentions an interesting quote when talking about service design and touchpoints:

“Service design is about choosing the most relevant touchpoints for service delivery and designing consistent customer experience across these many touchpoints. It looks for opportunities to introduce potentially new and more effective touchpoints, remove weak touchpoints and to coordinate the user-experience across touchpoints in relation to brand message and user needs.”

– Clatworthy (2017) p.137

3.3.2  Visualisations
Since services are complex and can exist both in physical products or human interactions it is important to get a common understanding of the service (Moritz 2005). One of the challenges in service design is to communicate the value of the service, which can be done by finding ways to create tangible representations, also called visualisations (Moritz 2005). Visualisations can either describe the current state or the future state of the service (Blomkvist & Segelström 2013). Segelström (2013) describes that visualisations can be utilised to articulate insights more clearly to stakeholders and mentions six different techniques that are commonly used in service design: blueprint, customer journey, desktop walkthrough, persona, storyboard and system map. Furthermore, visualisations can be co-created together with clients and are universally claimed to be used by service designers (Segelström 2010).

Diana, Pacenti and Tassi (2009) explain that services need to be visualised from several perspectives to give the viewer an overall picture at the same time as it contributes to a specific understanding, such as the experience of the user. The authors further discuss the importance of reflecting on strengths and weaknesses with different visualisation tools. Furthermore, they claim that there are two variables that define and characterise the visualisation: level of iconicity and the relation over time. When it comes to iconicity, the visualisation can be somewhere on an axis between abstract or realistic. It is important for the service designer to reflect on how realistic the visualisation should be to show the complexity of the service while still capturing the empathy that realism gives (Segelström 2010; Diana,
Pacenti & Tassi 2009). The visualisation can further vary on a time axis between synchronic or diachronic. Together these axes create a wide spectrum of possibilities within visual representations seen in Figure 5 (Diana, Pacenti & Tassi 2009).

As seen in Figure 5, there are four categories of visualisation tools and they are maps, flows, images and narratives. Maps are aimed to give an overall view of the service and the connections between different elements and can be visualised with system maps, mind maps or affinity diagrams (Diana, Pacenti & Tassi 2009). Flows are abstract representations that visualise the process and the experience, and an example can be service blueprints or customer journeys. Images are realistic representations and can be pictures, moodboards or service images. The last category is narratives which are diachronic representations that are based on realism and can be visualised by tools such as storyboards, prototypes or films (Diana, Pacenti & Tassi 2009).

3.3.3 Customisation
The personal interaction between a customer and a frontline employee of a service is what Bettencourt and Gwinner (1996) call the service encounter. Customers expect to be treated as individuals and do not want a “one-size-fits-all” solution (Gwinner et al. 2005). The service encounter is a great opportunity to customise the service delivery with consideration to the individual customer (Bettencourt & Gwinner 1996). Technology can be used to some extent to achieve customisation (Ansari & Mela 2003). However, as Gwinner et al. (2005) point out, many companies are dependent on the frontline employee to deliver the service in a customised way. Consequently, the authors mean that companies are dependent on the frontline employee’s ability and motivation to apply customisation strategies during the service encounters.
According to Bettencourt and Gwinner (1996), there are two dimensions that employees can embrace regarding customisation: interpersonal adaptive behaviour and service offering adaptation. The former involves the employee altering the way of communication, and thereby the way the service is delivered, according to his or her perception of the customer’s individual needs. Some customers prefer a personal touch to the conversation while others prefer it to be more efficient and strictly business oriented (Bettencourt & Gwinner 1996). Service offering adaptation means customising service attributes and benefits according to the customer’s individual needs (Bettencourt & Gwinner 1996).

If companies encourage frontline customisation, the service must be designed to make it possible (Bettencourt & Gwinner 1996). As for how to facilitate customisation at the individual level, and contribute to frontline employees’ performance of customised service behaviours, Gwinner et al. (2005) mention customer knowledge, predisposition to adapt and motivation to adapt as variables. These facilitators can be seen in Figure 6. Customer knowledge is the knowledge of different customers. Predisposition to adapt include tolerance for ambiguity and service orientation. Motivation to adapt include intrinsic and extrinsic motivation.

![Figure 6 - Variables that facilitate frontline employees’ adaptive behaviour, interpretation of Gwinner et al. (2005).](image)

To fully provide an individualised service, Bettencourt and Gwinner (1996) write about the possibility to store information about the preferences for individual customers. The information can be stored in databases that employees can access. The authors interviewed and observed employees involved with customer service over the telephone. These employees can tag a customer’s account with interaction style preferences which other employees can access for future interactions with the customer. This type of information can be an asset to companies and their frontline employees if they wish to achieve service customisation (Bettencourt & Gwinner 1996).
3.4 Method Theory

This section describes the theory behind the used methods of the thesis. The methods are supposed to be helpful guidelines that can be customised to fit into the context rather than being a strict formula.

3.4.1 Design Ethnography

The importance of design ethnography, in designing new products, is to contribute with tools for data collection and analytical methods, to create an understanding of a particular environment or people that will use the future product or service (Salvador & Mateas 1997). According to Salvador, Bell and Anderson (1999), design ethnographers strive to understand how consumers live and what they think rather than asking what they want and the authors describe design ethnography as:

“Design ethnography focuses on the broad patterns of everyday life that are important and relevant specifically for the conception, design, and development of new products and services.”

– Salvador, Bell and Anderson (1999) p. 36

Ethnography originates from anthropology and is the systematic observation and learning of people and their behaviours in cultural or organisational settings (Leslie & Paradis 2018). Ethnographic research typically provides a more complete context of activity with rich descriptions of people, environments and interactions (Millen 2000). Designers are constantly getting influenced by ethnography and psychology to really find the customers’ needs and information about their lifestyle (Sanders & Stappers 2008). According to Simonsen and Kensing (1997), an important part of ethnography is that work is viewed as a socially organised activity, where people’s description of how they perform their work differs from their actual behaviour. Therefore, the authors claim that detailed studies of work must include both observations and interviews. Since ethnography requires the researcher to get very close to the users and their work practices, the users must be aware of the overall purpose of the study in order to accept and participate (Simonsen & Kensing 1997).

In the service design field, Segelström, Raijmakers and Holmlid (2009) claim that service designers often use some kind of ethnographic methods for research. They further argue that service design aims to use ethnography to make connections with future users of a service. It is an approach where researchers take the users perspective and really get to know the new service. Ethnography can be involved from the first design iteration to the testing of prototypes. Ethnographic methods can provide both quantitative and qualitative data, and it provides opportunities to help people get involved in the research process. Segelström, Raijmakers and Holmlid (2009) discuss that ethnographic studies are time-consuming and sometimes limited access to informants can make it hard, but taking a service design approach on the methodology can still provide useful information.

Segelström, Raijmakers and Holmlid (2009) have further investigated the use of ethnography in service design. The authors conducted a workshop at a conference where they found some reoccurring themes about what service designers mean when talking about ethnography methods. The first theme was that ethnography requires a designer to be out in the field of study, and it could be done by making real context observations or collecting data from a first-hand source. The second theme was that doing ethnography provides rich data material, and this data could be documented in observational protocols or video recordings. Furthermore, the authors identified areas of application where it might be difficult to practically apply ethnography in service design processes. One interesting area of application is when ethnography is applied to inspire idea generation since ethnography provides rich data and this data is not supposed to be cleaned out on ambiguity, be reduced on abundance or involve and engage users as service design is supposed to do (Segelström, Raijmakers & Holmlid 2009).
3.4.2 Rapid Ethnography

Millen (2000) claims that an ethnographic researcher is supposed to go in with an open mind when entering the field to find everything that can be of value for the study, which is extremely time-consuming but gives the researcher extraordinary rich data sets. The author acknowledges another approach to meet the increasing time demands called Rapid ethnography, which is an evolving set of field practices for a team to understand the users faster and cheaper without sacrificing the quality of the observations. Rapid ethnography is based on three key ideas for field research strategies. The first strategy is to narrow the focus of the field before entering it by zooming in on important activities and using key informants. The second strategy is to use multiple interactive observation techniques to increase the possibility to discover useful user behaviour. The third strategy is to use collaborative and computerised iterative data analysing methods (Millen 2000). As mentioned by Millen (2000), ethnographic researchers approach the field with an open mind, which gives the researcher extraordinary rich data sets but to take on a rapid ethnographic approach one should have a more focused approach when entering the field. The focused approach demands that the research question is well defined and that the researcher knows where or what to look for (Millen 2000).

Furthermore, Millen (2000) describe four sampling strategies to find key informants when applying rapid ethnography. The first strategy is identifying one or more informants that have access to a broad network of people and can serve as field guides to further explain what activities that can be interesting to observe. The field guides help the researcher to limit the time by knowing where and when to look. Secondly, use liminal informants, who are persons who have interacted with the group of interest. They can provide valuable information about prior events or experiences since they are aware of interesting patterns or unusual events. Thirdly, corporate informants can provide knowledge from the researcher’s own colleagues and they can also provide field guides and liminal informants. The final approach is to use fringe sampling techniques, which can be explained as identifying informants that are the most likely to be interesting. These informants can, for example, be found in forums which can help you find one interesting person that leads to the next, creating a snowball effect. Millen (2000) claims that all these sampling strategies can be used to help the researcher to identify behaviours and patterns in a reasonably efficient manner. The author further claims that all these strategies can be combined, depending on the situation, to reach the best possible result.

3.4.3 Observation

To be able to reveal important details about the customer needs, it is fundamental to watch the customer perform a task with the product or from the service (Ulrich & Eppinger 2012). By observing people, the researcher can reveal a great deal about how tasks are performed, the technology used to support the task, support that is missing and how people interact with their environment (Preece, Sharp & Rogers 2002). Observations can give accurate insights of how people use procedures to fully understand the context, behaviours, motivations and interactions. By observing, the researcher can see what people actually do, and not just what they say that they do (Polaine, Løvlie & Reason 2013). Observations can be conducted passively by the researcher, meaning no interaction with the customer, or the researcher may get involved by working alongside the customer to develop a first-hand experience (Ulrich & Eppinger 2012). If people are aware that they are being observed, van Boeijen et al. (2016) write that there is always a possibility that they might behave differently compared to how they normally would. However, if people are unaware of the observation there are ethical guidelines to consider. If observations are conducted, it is recommended that a follow-up interview is conducted for the information and insights to be confirmed (Segelström, Raijmakers & Holmlid 2009).
Furthermore, van Boeijen et al. (2016) propose the combination of observations with interviews to reveal more details about what was going through the observed person’s mind. As preparation for observations, the authors suggest that the matters of what, who and where to observe should be determined. An observation form, with a checklist for the things to observe and questions for a possible interview, can be created (van Boeijen et al. 2016). van Boeijen et al. (2016) recommend video capture for documentation of the results, but they also mention photos and taking notes as other options. While observing, the hardest part is to not look for things that are already known and that is the authors’ explanation as to why video is the preferred documentation method, although it is time-consuming. One important thing to do after each observation is to go through the notes and add impressions as soon as possible, to make sure that valuable data is not lost (van Boeijen et al. 2016).

Millen (2000) proposes several techniques to save time in the field and still improve the data collection. One approach is to have more than one researcher in the field at the same time. The author further argues that it might affect the study since it disturbs the natural setting, but still acknowledges more advantages when it comes to effectiveness. Multiple researchers can split up and collect data from several people at the same time. To have several researchers can also make the language and cultural differences easier to handle. Another technique, to save time and get more data, that the author mentions is to identify when the activity of interest occurs most frequently during the week to optimize the schedule for the on-site observation. Lastly, interactive research approaches can be conducted to rapidly understand user behaviour and can be done, for example, by structured interviews, activity walkthroughs and contextual inquiry, but also by letting the researcher participate in the activity of interest (Millen 2000).

3.4.4 Interview

Conversations are a fundamental form of human interactions and it is through conversations, formally called interviews, one can learn about people’s everyday life and get to know their feelings and attitudes towards the subjects the interviewer brings up (Kvale & Brinkmann 2014). Research shows that two one-hour interviews reveal about the same number of customer needs as one two-hour focus group session (Griffin & Hauser 1993). van Boeijen et al. (2016) state that interviews are more time-consuming than focus groups, but on the other hand they offer deeper insight due to the possibility to delve deeper into the interviewee’s answers. Since it is more cost-effective to do interviews, Ulrich and Eppinger (2012) recommend interviews to be the primary data collection method.

When conducting an interview, an interview guide with a set of questions is valuable to structure the dialogue (Ulrich & Eppinger 2012). The interview guide itself can be structured, unstructured or semi-structured, and the last two offers more flexibility to divert and add questions as a result of what the interviewee says (van Boeijen et al. 2016). According to Kvale and Brinkmann (2014), it is valuable to build a comfortable atmosphere for the interviewee to feel safe talking about feelings and thoughts. It is the interviewee’s task to make sure that the interviewee feels safe in order for the result of the interview to be of value. Preece, Sharp and Rogers (2002) suggest that the interview can be conducted in the interviewee’s office or home to facilitate the interview. By doing the interview in a safe and familiar space, the interviewee can show what systems and artefacts they use, thus making it easier to talk about their activities. The authors further claim that being in the natural context also can trigger the interviewee to remember things. Interviews are often conducted face-to-face, but telephone interviews are another option, although body language cannot be seen (Preece, Sharp & Rogers 2002). An important thing to look for during the interview is non-verbal information and latent needs. This can be facial expressions of the customers and their thoughts and feelings about competitors’ products (Ulrich & Eppinger 2012). As for the number of interviews, van Boeijen et al. (2016) recommend researchers to stop when an additional interview probably will not result in new information.
Ulrich and Eppinger (2012) claim that the choice of documentation method is critical. An audio recording can be useful for transcribing but is also very time-consuming and can be seen as intimidating for some interviewees. The authors add that taking notes is probably the most common method since it is less time-consuming and if there are two interviewers one can concentrate on taking notes while the other focuses on the interview guide. The customer statements should be transcribed immediately after the interview and can be very close to an actual transcript (Ulrich & Eppinger 2012).

3.4.5 Affinity Diagram
There are a lot of methods to analyse data from observations and interviews, and in literature, there are a lot of different names for practically the same methods. One frequently used technique is to discuss and group data like insights, quotes and notes. Preece, Sharp and Rogers (2002) claim that the development team has to have an agreed view of the users and their work. This leads to team members communicating their own experiences, from interviewing and observing, to the other team members and together producing one consolidated view of the users’ work. When organising and structuring insights, ideas and opinions, the creative process affinity diagram can be a helpful method to gain an agreement within the team (Moritz 2005). The diagram shows a hierarchical view of the clustered notes that are based on similarities. At the end of the session, a title is created that describes the theme of each clustered group to get a common understanding of the problem or activity since people sometimes use different names or describes the same activity differently (Preece, Sharp & Rogers 2002).

3.4.6 Customer Journey
Customer journeys belong to the category of flows in visualisations (Diana, Pacenti & Tassi 2009). Blomkvist and Segelström (2013) explain that these representations visualise the customer’s journey through a service and can often include the stages before and after the service interaction. Segelström (2010) claims that the focus of a customer journey is to capture the customer’s perspective, what they see and experience, not explain how the service works. It is rather more emotional than operational. The author further explains that it is hard to find publications on customer journeys and that it is a dynamic tool that can take many forms and should be seen as an inspiration rather than a guide. Even though it is hard to find an exact guide on how to make a customer journey, Segelström (2010) mentions three elements that are reoccurring in many journeys: time-aspect, interactions and emotional triggers. Furthermore, the author found that customer journeys, as well as storyboards, are very strong visualisation techniques when it comes to expressing service traits on most of the aspects that a service design visualisation should contain.

3.4.7 Design with Intent Toolkit
Lockton (2013) has created a toolkit for brainstorming that is intended to be used when designing for behaviour change. He calls it Design with Intent; design that is intended to influence or result in a certain user behaviour. The toolkit can be used as an idea generation technique for designers, and it includes 101 cards with ways on how design can influence behaviour. The cards are grouped into eight categories or, as Lockton (2013) calls them, lenses. These lenses are different kinds of disciplinary “worldviews” or fields of research. The eight lenses are Architectural lens, Errorproofing lens, Interaction lens, Perceptual lens, Cognitive lens, Ludic lens, Security lens and Machiavellian lens.

All these lenses and the cards associated with them are directly influenced by different fields of research (Lockton, Harrison & Stanton 2010). Lockton, Harrison and Stanton (2010) write that workshop participants that are not so confident about their design expertise might find it easier to apply the toolkit if they use the lenses instead of looking at each card separately. Furthermore, Lockton (2013) advises that the toolkit should be used in group workshops and that designers should try to find their own ways of combining the lenses and cards to solve their problems, but the author suggests five ways on how the toolkit could be used. One way, that is good for first-time users of the toolkit, is
“target behaviours” where cards are matched to particular kinds of behaviour change (Lockton, Harrison & Stanton 2010). The target behaviours could be the ideal outcome from the design and the behaviours are divided into user-system interaction or user-user interaction. For both of the interaction types, Lockton, Harrison and Stanton (2010) suggest a couple of behaviours with examples and give a couple of suitable cards (See Appendix D). Moreover, the authors mention that they are not entirely convinced that “target behaviours” is the right approach for Design with Intent, but this is primarily because some designers feel constrained when using prescription methods.
4 Method

This chapter describes how the methods have been used, when conducting the thesis, to answer the research questions. The chapter begins with an explanation of the overall process. After this, the different phases of the process are further presented in detail.

4.1 Process

The thesis had a service design approach and the process of the thesis was divided into three phases building upon each other: research, analysis and ideation. These phases are illustrated in Figure 7. As seen in the figure, the research phase was conducted with design ethnography methods with raw data as an outcome. The analysis phase was an iterative process where the methods were conducted multiple times with insights, pain points and visualisations as outcome. Lastly, the ideation phase was done based on the Design with Intent toolkit with a design proposal as the outcome.

4.2 Research Procedure

The first phase of the process was the research phase where all the information about the actors and users of the service was collected. The aim of the research was to create a deeper understanding of coaching and for the service Driver coaching and its stakeholders. The whole research phase was conducted by using design ethnography methods. Different techniques from rapid ethnography were used to speed up the research since the time that could be spent out in the field was limited.

4.2.1 Interviews with Employees at Scania Connected Services & Solutions

The user research started with an exploration within Scania to find informants who would lead to the frontline employees of the Driver coaching service and could explain the organisation and the service more thoroughly. The first informant was the supervisor of the thesis, a UX designer at Scania, who had knowledge about the Driver coaching service and CT. Unstructured interviews were held with the supervisor. Furthermore, the informant identified five other informants that were relevant for the thesis:

- A previous thesis student at Scania Connected Services
- An Area Manager
- A Product Owner of Driver Evaluation and Scania Coaching Tool
- A Product and Concept Manager of Driver Services
- A Managing Director at a transport company

The informants were informally interviewed and they further identified various coaches and drivers from different markets. One of the informants also invited the researchers to a dinner event in Södertälje, Sweden, which one of the researchers attended. The event was for coaches from different countries and during this event more knowledge about the coaching profession was obtained. During
the event, a coach from Norway accepted to be involved in an observation and interview session that the researchers conducted five weeks after the event.

4.2.2 Observations and Interviews with Drivers

Two observation sessions were carried out in trucks with drivers from one of Scania’s affiliated companies that operate as a typical European transport company. These observations were conducted for the researchers’ understanding and empathy for the drivers’ profession. The observations of the drivers were held for two hours each and the researchers split up, taking care of one driver each. While observing, semi-structured interviews were conducted. The questions (see Appendix A) were asked when the drivers had time and could focus on the questions. The questions were not asked in a particular order since the drivers were interrupted at times. Furthermore, some questions were identified to be unnecessary since the drivers had never been coached.

4.2.3 Observations and Interviews with Coaches

Observation and semi-structured interview sessions were carried out with three different coaches, one at a time, from the Driver coaching service: one from Sweden, one from Finland and one from Norway. The sessions were conducted in each country respectively. Before the sessions, there were phone and e-mail contact with the coaches and the coaches were sent some information about the sessions. The purpose of the observations was to observe coaching sessions, meaning the coaches’ preparation work, the phone calls to the drivers and the coaches’ work after a finished call. The purpose of the interviews, which were conducted directly after the observations, was to further understand the work of the coaches by asking questions about what had just been observed and what could not be observed.

An observation form was created to be used during the observations (see Appendix B). It included information about the thesis to tell the coaches as an introduction to each session. Furthermore, the observation form included codes, such as abbreviations, to use when taking notes, and also some suggestions of things to keep in mind while observing. For the notes, there were three columns. One column was for the codes to keep track of if the observation was taking place before, during or after a phone call. The second column was for things that were observed and the third column offered room for personal comments and thoughts. At the bottom of each page, there was space for questions to be added, which could later be used during the interviews. An interview guide was also prepared before the sessions (see Appendix C).

During every session, the two researchers were put in the field. Each session started with some information about the thesis and the session itself. The coaches also got to sign a consent document that allowed audio recording during the observation and interview sessions. At the beginning of every phone call to the drivers, the coaches informed them that there were researchers in the room who wanted to listen to the conversation. If the drivers gave their permission, the drivers were then put on speakerphone for the remainder of the call. During the observation sessions, notes were taken in the observation form that had been printed beforehand.

The first observation and interview session was conducted with a Swedish coach. The session was performed in a small office room that the coach usually uses. During this session, the researchers got to sit behind the coach, being able to see both the computer and the notebook that the coach had, see Figure 8. The session lasted for two and a half hours and during this observation, eight calls were made and five were answered.
The second observation and interview session was conducted with a Finnish coach. The coach has no particular office where the calls are made, but they usually take place at the coach’s home. This session was conducted in a conference room, where the coach sometimes makes the calls from, borrowed by a Scania distributor in Finland. Here, the researchers got to sit on opposite sides of the table making one researcher able to see what was done on the iPad, and the other able to watch the coach, see Figure 9. The session lasted for three hours and during this observation four calls were made and two were answered.

The third observation and interview session was conducted with a Norwegian coach. This coach travels a lot and has to be flexible about where the calls are made, but for this session, the coach used a conference room at the Scania office in Oslo, Norway. During this session, the researchers got to sit in front of the coach and the computer screen was shared on a projector screen making everyone able to see the activities that were performed, see Figure 10. The session lasted for four hours and during this observation, ten calls were made and seven were answered.
Table 1 visualises how many coaching sessions were performed during each observation, and the rate of completed coaching sessions. Initiated coaching sessions are sessions where only the preparations before calling the driver were done, and completed coaching sessions are the ones where the driver answered the call and the coaching session was completed.

Table 1 - Number of coaching sessions during the observations.

<table>
<thead>
<tr>
<th></th>
<th>Number of initiated coaching sessions</th>
<th>Number of completed coaching sessions</th>
<th>Rate of completed coaching sessions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweden</td>
<td>8</td>
<td>5</td>
<td>63%</td>
</tr>
<tr>
<td>Finland</td>
<td>4</td>
<td>2</td>
<td>50%</td>
</tr>
<tr>
<td>Norway</td>
<td>10</td>
<td>7</td>
<td>70%</td>
</tr>
<tr>
<td>Total</td>
<td>22</td>
<td>14</td>
<td>64%</td>
</tr>
</tbody>
</table>

After each observation, there was an interview conducted with the coach. Each interview, one of the researchers took the role as the interviewer and used the interview guide, while the other researcher listened and took notes. Since the interviews were semi-structured, spontaneous questions could be added during the interviews, both by the interviewer and the other researcher.

After the sessions, the audio recordings of the observations were used when going through the notes in the observation forms. Important things noted in the recordings were written down in the observation forms with a different coloured pen to make sure that the original notes could be separated. Some quotes, interesting for the research questions of the thesis, that the coaches said were transcribed and collected in a document. The audio recordings from the interviews were used to summarise answers to questions and to further transcribe more quotes.

4.3 Analysis Procedure

The second phase of the process was the analysis phase where all the data from the research was analysed, summarised, clarified and visualised. In this section, the procedure for the analysis is further explained.
4.3.1 Analysis of Quotes

To fully understand the observation notes, they were read once more and details were colour coded with different pens: green for activities that were performed by the coach, blue for quotes, pink for emotionally charged subjects and yellow for coaching activities that the driver experienced. To further analyse the data from the observation and interview sessions, all the collected quotes were printed. Quotes from the interviews with the informants within Scania and the two drivers were also added to the mix. The scrutinising of the quotes was a way to analyre the data and thoroughly consider each quote and understand the bigger picture. Each quote was separated from each other and then colour coordinated to keep track of whom it was said by: a coach (yellow), a driver (pink) or a Scania employee (blue). When all quotes were cut out they got clustered in groups based on similarities, see Figure 11. The clustering step was done multiple times, and for each clustering, some quotes and groups were put aside since they were not interesting for the thesis. Furthermore, new groups appeared and a hierarchy affinity diagram was created on the side, just to keep track of thoughts, quotes and insights that were connected to each other, see an overview in Figure 12. The groups started to look like themes and some quotes from each group were identified as key quotes and put into a document that was used later to inspire the final themes.

Figure 11 - Pictures from the process of the quote clustering.

![Figure 11 - Pictures from the process of the quote clustering.]

After the clustering had been repeated a couple of times, the coaches’ need and wants were identified through each quote or group and written down on Post-it notes. The needs were written down on three different coloured notes: yellow representing expressed needs, green representing latent needs and orange representing future needs. The Post-it notes were thereafter sorted and put on a whiteboard, see Figure 13, and were used as a guide when finding pain points.

Figure 12 - Overview of the hierarchy affinity diagram.

![Figure 12 - Overview of the hierarchy affinity diagram.]

After the clustering had been repeated a couple of times, the coaches’ need and wants were identified through each quote or group and written down on Post-it notes. The needs were written down on three different coloured notes: yellow representing expressed needs, green representing latent needs and orange representing future needs. The Post-it notes were thereafter sorted and put on a whiteboard, see Figure 13, and were used as a guide when finding pain points.
After identifying needs and wants, keywords from all the quotes were put into a word cloud to get an additional hint on themes or words that were important in the Driver coaching service, see Figure 14.
4.3.2 Customer Journeys

An as-is customer journey was created to visualise the observed findings of how the service works today. The activities were identified through the notes in the observation forms and written down on Post-it notes. The process of creation was to sketch on a whiteboard and place the Post-it notes where the activities belonged. The sketched customer journey was discussed together with the supervisor from Scania to evaluate if it was clear and easy to understand for other stakeholders. Feedback from this discussion was that a categorisation was needed. The activities got categorised in: performed by all coaches during every coaching session (blue dots), performed now and then by all coaches (green dots), and performed now and then by some coaches (no dots), see Figure 15. Furthermore, a red dot was placed next to activities that were influenced directly by the drivers. When doing the customer journey, more insights appeared and were included in the identification of pain points.

![Image](image_url)

*Figure 15 - Second sketch of the customer journey.*

The customer journey was discussed once more with the supervisor. During this discussion, it was decided that the customer journey also should present the driver’s journey and that the coach activities should be divided into front- and back-stage activities, see Figure 16. After this, a final customer journey was created, and a representation for how often the activities were performed was added. The customer journey was then discussed with the Driver Coaching Product Owner and the Product and Concept Manager of Driver Services to check if the visualisation was self-explanatory. Furthermore, each step of the customer journey was analysed and explained by previous findings from the quotes and insights to really get an idea why a certain activity was performed.
4.3.3 Telephone Interviews with a Coach and a Driver Training Manager
Two semi-structured telephone interviews were held to evaluate the analysed insights from the previous interviews and observations. The telephone interviews were conducted with another Swedish coach and a Driver Training Manager. The interviews were held for one hour each, revolving around different insights from the observations. The first interview was performed to evaluate whether the previously identified coach activities were the same for this coach as for the observed coaches. The coach also got to share supplementary thoughts that could confirm a shared idea about the findings from the observations. The Driver Training Manager got asked questions about coaching as a profession and some questions about needs that the coaches had expressed. Furthermore, some ideas about solutions were discussed.

4.3.4 Pain points and Themes
Pain points were identified based on findings from both the clustered quotes and the needs, but mainly from the customer journey. After this identification of pain points, the researchers started to think about the different themes that had appeared during the analysis. There were three themes that stood out more than others; two themes from the hierarchy affinity diagram and one theme from the word cloud. To be certain that these themes were the most important, the pain points were sorted out according to themes, and here it was clear that the three themes were important since the pains were all connected to the themes. The pain points were then connected to key quotes that were representative of the pains in each theme.

4.4 Ideation Procedure
The third phase of the process was the ideation phase where the pain points, from the ethnographic data, were to be solved with a design proposal. In this phase, the researchers mostly did the ideation work themselves but discussed the ideas with the supervisor from Scania.

4.4.1 Design with Intent Toolkit
The Design with Intent toolkit was used to generate possible solutions to the identified pain points. This toolkit was used with the method “target behaviours” (see Appendix D). Firstly, the 101 Design with Intent cards were printed to be able to get a clearer view rather than seeing them on a computer screen, see Figure 17. The second step was looking at each pain point and pairing them with the different target behaviours in the toolkit. Each pain point ended up with one or several target behaviours and altogether all the target behaviours were coincidentally selected (see Appendix E).
For one pain point at a time, the cards belonging to the selected target behaviours were used. Five minutes were spent on each card to generate ideas. The ideas were generated by the researchers using the mind-set written on the card and discussing thoughts, which were then written down on Post-it notes, see Figure 18. All the cards were not applicable to solve the pain points and in that case, they were discarded. As the last step, the cards that did not belong to any of the target behaviours were reviewed by the researchers, but this time it was done individually and about 15 minutes were used to work through all the cards. Once again, ideas were written down on Post-it notes, see Figure 18.
Thereafter, all the Post-it notes with the ideas were put on a wall and grouped based on similarities and possibilities to be combined, see Figure 19. This was done by the researchers individually, to create an own perception of the ideas and their grouping, and then the result was discussed to find further connections between the ideas. The groups of ideas became concepts which were defined further with more detailed descriptions. Pros and cons were also discussed and added to every concept. These concepts were then discussed together with the supervisor and a final concept was chosen.

![Figure 19 - An overview of all the created ideas in groups.](image)

### 4.4.2 Visualisation of Design Proposal

To visualise the design proposal, a to-be customer journey was created. This was mainly done for presentation material purposes and for readers to fully understand the concept. The to-be journey was created based on the template of the as-is journey to show what was different with the new design proposal. The to-be journey was very detailed and a complimentary visualisation was needed to quickly show the benefits of the new design proposal versus the original coaching service. The new visualisation, for both the as-is service and to-be service, included a timeline with icons representing touchpoints and activities performed by the coach. This visualisation also got curves showing the benefits of the new concept when it comes to the coach workload and the driving skills. Furthermore, prototype was created in Adobe Illustrator and then prototyped in Adobe XD to be able to show how the concept could be used if it was implemented.
5 Results

This chapter describes the results of the research, analysis and ideation. Since the generative design work is based on ethnographic data, the results are rich analysed data like experiences, thoughts and observed findings from the field. From this chapter on, the coaches are referred to as coach W, coach X, coach Y and coach Z to keep them anonymous. Furthermore, all quotes in this chapter come from the observations and interviews. Please note that the quotes have been translated and hence the original meaning may have been distorted.

5.1 The Coaches

Below there is some brief background information about the coaches that were a part of the ethnographic study. All the information is a selection of the results of the interviews. Table 2 summarises the information about the coaches. The number of drivers that the coaches coach can only be approximated since it constantly varies depending on coaching subscriptions.

<table>
<thead>
<tr>
<th>Coach</th>
<th>Years as a coach</th>
<th>Truck driving experience</th>
<th>Drivers to coach (approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coach W</td>
<td>5</td>
<td>Yes</td>
<td>50</td>
</tr>
<tr>
<td>Coach X</td>
<td>4</td>
<td>Yes</td>
<td>30</td>
</tr>
<tr>
<td>Coach Y</td>
<td>1.5</td>
<td>Yes</td>
<td>60</td>
</tr>
<tr>
<td>Coach Z</td>
<td>2</td>
<td>Yes</td>
<td>90</td>
</tr>
</tbody>
</table>

Coach W started working as a coach within Driver coaching in 2013. The coach has previous experience from working as a driver. The remaining work hours that coach W does not spend on Driver coaching are devoted to the education of professional drivers. Coach W coaches approximately 50 drivers that work within different transport companies. The coach participated in Train the Coach three years into coaching. Before that, a colleague helped coach W get started.

Coach X started working as a coach within Driver coaching in 2014. The coach has spent a lot of time working as a driver, but has currently set this career aside, and was the owner of a transport company at one point. Apart from Driver coaching, the coach has other work commitments, for example, education of professional drivers. Coach X coaches approximately 30 drivers that work within the same transport company. The coach has not participated in Train the coach but has received education elsewhere.

Coach Y started working as a coach within Driver coaching by the end of 2016 or the beginning of 2017. The coach has previous experience from being a truck driver, bus driver and heavy vehicle driving instructor. In addition to the work as a coach, Coach Y works with teaching, both internally and externally, within different areas, for example, vehicle handover. Coach Y coaches approximately 60 drivers that work within different transport companies. The coach participated in Train the Coach in February 2018.

Coach Z started working as a coach within Driver coaching in 2016. In addition to the work as a coach, Coach Z works as a driver and an educator of professional drivers. The coach works at the same transport company as the 90 drivers that coach Z coaches. During 2017, coach Z participated in Train the Coach and due to interest in coaching coach Z took part in a course, outside work, in communication.
5.2 The Coaching Process

Visualisations were created to communicate the ethnographic findings to Scania. A service process, showing the entire Driver coaching service, and a customer journey, describing activities connected to the report and the coaching session, were created. The service process can be seen in Figure 20. The service process represents the service from the coaches’ perspective. The highlighted parts are the ones that are investigated in this thesis, and each phase is further explained in the following sections. The visualisation, Figure 20, shows that the coaching service starts with an initial meeting between the coach and all the drivers. The initial meeting can be done multiple times with new drivers since contracts are signed at different times during the year. In some cases, the coach never meets the drivers. According to the coaches, it is problematic to not meet a driver since the coaches do not get a sense of whom the driver is, and the driver does not know whom the driver is talking to on the phone every month.

After the initial meeting, the coach sends reports to all drivers and after that, the coaching sessions begin. A coaching session consists of preparation, call and documentation, and the cycle starts all over for each driver. The coach often calls several drivers for a certain amount of time, depending on the coach’s work schedule. Sometimes there is an error occurring, see the red line in Figure 20, between preparation and call. This error occurs when the driver is unavailable, which is further explained in the following sections. The error occurred in 36% of the observed coaching sessions as calculated from the data in Table 1. When all drivers have had a coaching session, the cycle stops and the coach returns to making the reports again. Report and coaching session are done on a monthly basis. When a driver’s coaching contract expires the coaching service ends for that driver, but the coach continues to coach other drivers, making the cycle continue.

![Figure 20 – An interpretation of the observed driver coaching service process.](image)

The driver journey and the coach journey can be seen in Figure 21, which has been divided and covers two pages. In the journey, all activities that occurred during the observations are displayed and categorised. At the top of Figure 21, one can see a brief journey for the customer who is the driver.
Since this thesis is focused on the coaches’ perspective, a thorough driver journey is not presented. The material for the driver journey is based on comments from the drivers in the observed calls and information from the coaches. The driver journey presents all touchpoints existing within the Driver coaching service today, as well as a touchpoint that belongs to FA, which is frequently used by drivers and could be seen as a complement to Driver coaching according to the coaches.

In addition to the driver journey, the coach’s perspective of the service is also visualised in Figure 21. At the top there are the different phases of coaching: report, preparation, call and documentation. There is a service satisfaction curve which shows the coach’s opinions of different elements and phases in the service. The fictive quotes are based on a mixture between the interview and observation notes. Underneath, all activities performed by the coach is visualised and can be seen in the small squares.

The activities are either represented in the front-stage or in the back-stage. Front-stage means activities that the driver notices that the coach is doing, for example, what they talk about in the call. Back-stage represents activities that are not visible to the driver, for example, what the coach does on the computer. Furthermore, the activities are categorised to visualise which ones that always occur and which ones that are exceptions. As a complement to this, red stars mark the activities that are performed by request of the driver. The activities in the preparation and call phase may occur in varied order. This variation depends on human factors, like distractions, and are not further investigated.
Figure 21 - As-is customer journey. The second half can be seen on the next page.
5.2.1 The Report Phase

According to both Scania and the coaches themselves, the reports should preferably be sent one week before the coaching sessions. The drivers need time to read the report and reflect, to really be prepared for the call. Sometimes, the call can take place more than a week after the report has been sent. These variations depend on the coaches’ schedule, since the coaches are not full-time coaches. It also varies depending on whether the drivers are available when calling.

In the report, the drivers receive information about grades that they might not be updated on since many drivers do not use FA, which shows grades daily. The coaches prefer to create the reports at the beginning of a month since then the results from the entire previous month can be included. A report is always sent before calling the drivers, except in the case with coach Z, who does not send reports. The report is often generated in CT, but some coaches have their own tools or use FMP to create reports. The coaches mentioned many reasons for using other tools than CT, but one main reason is that the other tools support leaving longer comments since CT is limited to just four rows of text. Another reason is that the FMP report also automatically gives comments on what to do to raise a grade, which some coaches find useful for drivers that read the report. Moreover, the FMP trend curve for grades is more intuitive than the trend curve that can be found in CT, according to the coaches. In FMP, they can also view how far away or how close a driver is to reach a better grade which is very appreciated by the coaches.

All drivers do not read the report and in those cases the coaches spend time preparing a report that serves no purpose. The coaches believe that drivers can lack interest or time to read the report, and that they in some cases do not understand or use e-mail, where the report is sent. The lack of interest could depend on many variables, but those variables have not been identified by the coaches. The coaches mentioned that some drivers are not interested in coaching at all, in some cases because the transport companies buy the coaching service without asking their drivers whether they want it or not. The coaches also mentioned that another reason for lack of interest from the drivers may be that drivers find the report hard to grasp, making the report uninteresting. However, some drivers struggle with the language during the call since they do not speak the coach’s mother tongue and to those drivers the report is crucial.

Furthermore, the coaches can include comments to the drivers, giving them a chance to reflect and remember what they have spoken about in previous calls. In the comments, the coaches can also share things the drivers should keep in mind until the call. Some coaches prefer to write comments in the report since they have noticed that more thoroughly written comments in the report can generate a shorter call. This is only applicable to drivers that read the report, reflect and follow the tips. The coaches can also leave a comment saying that the drivers can send an e-mail if there are any questions.

To conclude, the amount of comments that the coach chooses to leave in the report depends on six factors, seen in Figure 22. The amount of comments in the report is something that the coaches experiment with to see what works for each driver.
5.2.2 The Preparation Phase

The preparation work is initiated before the phone call and starts with the coaches choosing which driver to call. The coaches prepare for the call to be updated with information and to find approaches on what to focus on during the call, that will make the coaching suitable to each driver. All the coaches have their own Excel spreadsheet, created by themselves or the company they work at, with stored information about the drivers and previous calls. By examining this information before the call, the coaches believe that they can use it as a conversation starter and to gain trust from the drivers.

As another part of the preparation, the coaches log in to CT and the transport company’s FMP. This is always done, except in the case with coach Z who coaches drivers at the same transport company as the coach works at. In CT the coaches look at the reports they have sent to the drivers and they look at the drivers’ grades. Sometimes the coaches also use CT to find the drivers’ phone number.

Even if CT works fine, the coaches prefer to use FMP since they believe that it offers more data about the drivers’ driving behaviour. More data makes it easier for the coaches to find and choose areas of discussion to cover during the conversations with the drivers. The fact that the coaches considers more data most often depends on the drivers, since the coaches know that some drivers ask for more data than just the grades. Since FMP provides more data, the coaches can find more suitable approaches for each driver.

The coaches spend a lot of time trying to figure out the most suitable approach so that the drivers will keep good faith in the service. However, the coaches express that with some drivers it is more difficult to know what approach to use. For example, drivers with good grades are difficult to coach. They already perform well, so the coaches find it hard to find an approach for the call. The drivers with less good grades are even harder to find a suitable approach for. These drivers often have much to improve, but the coaches need to choose something to start with that is appropriate for the drivers’ knowledge about driving. According to the coaches, many of these drivers can question the coaching service, creating lack of trust and commitment to the service. The drivers with less good grades are also hard to handle since some of them might think that the coaches question their ability to perform their job. This makes the coaches spend a lot of time trying to figure out the approach that will be most suitable for the drivers, and make them listen and change their driving behaviour.
In FMP, the coaches look at the drivers’ ranking position within the company. Sometimes the coaches look at data from the different trucks the drivers have driven. This occurs if the coaches are hesitant towards the correlation between the grades and the fuel consumption, or when one grade is deviating. The additional data can then offer the coaches theories or explanations as to what has influenced the grades. For example, average speed can give a hint about where the trucks have been driven, for instance in a heavily trafficked city or on larger roads. Some coaches also look at the data out of pure interest in finding out what affects the grades. Another reason for the coaches looking at fuel consumption is that some drivers find it difficult to grasp the grades. Fuel consumption is a more familiar concept to the drivers since it represents something that drivers learn when getting their licences and it is always visible on the dashboard of the truck. If the driver is the owner of the transport company some coaches also look at the vehicle performance of the entire transport company to see how the company is doing.

Furthermore, the coaches use Fleet position in FMP to see the drivers’ activity; if they are driving or not. A lot of the drivers wish to receive the phone calls while they are driving, and the coaches use the drivers’ activity in FMP as a determining factor of whether to call or not. The Fleet position also tells the coaches where the drivers are. If the drivers are driving in a heavily trafficked city, the coaches can choose not to call. However, if the coaches decide to call the drivers, some coaches use Fleet position to find the drivers’ phone number.

To sum up the preparation, this phase varies a lot in how time-consuming it is. It often takes only five minutes, but sometimes there are deviating grades that make the coaches have to reflect whether the grade is fair. The deviating grades make the coaches think about where the driver has been driving and what kind of driving conditions the driver has had. The coaches think that analysing data is interesting, but also necessary since many drivers question their grades when they are not in line with their expectations.

5.2.3 The Call Phase

The call phase starts when the coaches make a call to a driver. If the driver does not answer, the coaches have to try to call at another time or coach the driver next month instead. There are many reasons for the drivers not answering their phone according to the coaches. The drivers might not be at work, they might have their hands full or they might not want to answer. If the drivers do not want to answer, it can depend on how well the driver’s and the coach’s personalities match and how well they get along, according to the coaches. This personality match is something that is hard to handle for the coaches and it affects their way of working since they need to adapt to each driver. Sometimes the drivers return the calls when the coaches have begun other work tasks. This can cause the coaches to be unprepared, for example not being logged in to CT and FMP.

If the driver answers the call, a conversation begins. While the conversation goes on, the coaches shift between and look through the different tools in order to refresh their memory and to answer questions. Sometimes the coaches also make some notes in a personal notebook. These notes are used in the documentation phase once the call is completed.

The call consists of four elements: follow-up, discuss current grades, small talk and discuss future goals, see Figure 23. These elements appear in different order and vary in time, depending on the driver. During a conversation, the coaches always bring up things from previous calls; follow-up. This recap shows the drivers that the coaches know which driver they are talking to and it makes the drivers feel like the service is more individualised. The recap further creates trust between the coach and the driver. Positive feedback, for example about the improvement of one of the grades, is also used as a trust builder and encouragement.
Furthermore, the coaches always ask if the drivers have read the report or are aware of what grades they currently have. The answer gives a clue as to how well informed the drivers are. If the drivers have not read the report or recently used FA, the coach must update the drivers during the call by going through each grade. This is time-consuming and can prolong the call. If the drivers are up to date with the grades, the coaches can focus on grades that differ from the last call.

Sometimes the coaches ask the drivers about their way of driving and if they have any theories as to why they have achieved a certain grade. This question is mainly asked when there is a positive or a negative change in the drivers’ grades. The information offers the coaches some understanding of the drivers’ level of awareness and knowledge so that the coaches can share relevant tips on how to improve. Sometimes the coaches do not focus on how to improve the grades, but instead focus on how to lower the fuel consumption. The focus depends on the goal of the transport company and if the drivers find it easier to grasp fuel consumption than the grades. Furthermore, the coaches occasionally talk about the trend curve, where data over time can be seen. If the drivers constantly improve or remain good grades, the curve is used to give positive feedback. If the curve is pointing downwards, the coaches ask for an explanation. Common explanations that the drivers have revolve around factors such as the trucks, the weather and the road conditions. If the drivers are interested in understanding how these factors affect the grades, it opens for discussions about more data than just the grades.

Sometimes the coaches bring up more data, which can be found in FMP. All the extra data that the coaches provide is often on request of the drivers, partly because they do not trust the grading system. In fact, both coaches and drivers question how accurate the grades are, especially when the drivers have driven in rough weather conditions or have had a large cargo weight. If the driver is the owner of the transport company some coaches bring up the vehicle performance of the entire transport company. Furthermore, if a transport company uses the ranking position in FMP, the drivers’ position can be brought up in the conversation. Some drivers are motivated by the ranking system, but it can also create discussions and comparisons with other drivers’ data. At the request of drivers, some coaches communicate data that belongs to other drivers. This data is personal and can be a violation of integrity. The drivers’ need to know about other drivers’ data is something that the coaches struggle with to handle. It can be difficult to maintain a good relationship with the drivers while not providing the drivers with the requested information. Sometimes the coaches also have to explain to the drivers how the grading system works in detail. Once more, discussions about the trucks, the weight of the load, the weather and the road conditions can occur.
Additionally, the coaches sometimes talk about how the drivers’ driving behaviour affect the results of the transport companies. This information is brought up when the drivers are content with a grade, which can be improved, or the level of the fuel consumption, which can be lowered. The coaches use a greater perspective to spur the drivers to constantly work on their improvement and to make them realise the positive impact that their improved driving behaviour can have.

At some point during the conversation, the coaches and the drivers always talk about everyday things; small talk. The small talk is mostly brought up by the drivers, but it is also a way for the coaches to gain trust from the drivers. As the coaching sessions go on, the coaches and the drivers build a deeper relationship which makes it difficult for the coaches to end the calls or to steer the conversation back to coaching. Since the coaches often are the drivers only communication channel to Scania, the drivers also often give feedback on Scania-related things, for example the trucks or FA. However, this feedback from the drivers is something that the coaches do not always know what to do with. They receive a lot of information and feedback that never reach Scania since they do not know whom to contact.

Towards the end of the call, the coaches and the drivers always talk about goals and concrete things to work on until the next coaching session. The coaches often tell the drivers to focus on one of the categories as a goal until the next call, but the report and the overall grade do not show this goal. They further summarise what has been said during the conversation. Sometimes the coaches also ask the drivers when their colleagues are working since the coaches do not always know their schedule. By receiving this information, the coaches can schedule whom to call next.

5.2.4 The Documentation Phase

After finishing the call, the coaches use their Excel spreadsheets to note the date when the call to the driver was made. Some coaches also summarise what was said in the conversation. As mentioned before, this information can be included in the comment section in the report and it can be used as a conversation starter during the calls and to gain trust from the drivers.

5.3 Themes

This section describes the results from the analysis of the data from the ethnographic study. It consists of insights that have led to identified pain points. The insights are divided into three themes with individualisation as the main theme and trust and communication as subthemes. Individualisation is the main theme since it was found that in a driver coaching service both trust and communication are built upon individualisation. Below are the identified pain points within each theme.

Individualisation pain points:
1. The coaching tool does not support the coaching process.
2. The service does not support individualised processes.
3. The coaches struggle to find the most suitable approach for each driver.

Trust pain points:
4. The coaches struggle to gain and remain trust from the drivers.
5. Drivers do not understand or trust the grading system.
6. Drivers want the coaches to reveal co-workers’ grades.
7. The coaches cannot store information about the drivers and calls.

Communication pain points:
8. The coaches lack support from Scania.
9. Time is spent on preparing reports and calls that are neither read nor answered.
10. Important information is spread out in different tools.
11. The coaches cannot share detailed tips and comments with the drivers, except in the calls.
5.3.1 Individualisation

The main theme is individualisation which this thesis is based on and it has been discovered to be one of the most important parts when it comes to motivation in a driver coaching service. When looking at the service process, Figure 20, everyone has the same arrangement of the service; everyone gets a report and a call once a month, which does not support an individualised coaching process. However, as seen in the customer journey, Figure 21, a lot of the coach activities are not always performed and they are influenced by the drivers. The coaches notice that different drivers have different needs and the coaches individualise the performed activities to each driver, but the arrangement of the service still remains the same. The most significant difference in activities is how much data the coach considers during coaching, which is affected by six factors, seen in Figure 24. One example, to show how to read the figure, is that the coach considers more data when the coach and/or the driver are questioning achieved grades.

![Diagram](image)

*Figure 24 - Six factors that make the coach consider more data during preparation and call.*

The first pain point is “the coaching tool does not support the coaching process”. CT is supposed to help the coaches, but it does not support the coaches’ need to individualise the calls, to meet the drivers’ expectations. If drivers want data to understand the grades, the coaches have to look in FMP, which is one major pain. Furthermore, CT does not support the coaches’ need to know if a driver is available or not, so when planning the calls, the coaches need FMP.

“As you notice, many drivers are reflecting over the grades and connect them to how they drive. They think of this a lot, almost all the time. There are some that just wonder where the button in the car is while others are analysing their fuel consumption and grades and want to know more. This is exciting. Therefore, we have to have more information than the drivers have.”

— Coach Y

“The application is really good! But all energy seems to have been put into developing that instead of the coaches’ application.”

— Coach X

The second pain point is “the service does not support individualised processes”. One problem with the coaching process is that it cannot be individualised since the service package consists of one call.
and one report every month. For example, the coaches mentioned that they have some drivers that look at FA every day and that the drivers see it as a complement to the coaching report and the call. The coaches expressed that when drivers keep track on grades in the application, they do not need a call every single month where the coach just tells them to keep up the good work. However, the coaches cannot decrease the frequency of the calls. The coaches mentioned that if the service would allow the frequency of the calls to be decreased, the drivers would probably still need something that confirms that they are appreciated and seen by Scania.

“The report I send through coaching tool is quite unnecessary because I think it doesn’t provide that much. If the drivers use the application, they’ll see how it goes daily. In the report, you only see monthly information, six parameters and some text.”  
— Coach X

“We can take the example with the young driver, the apprentice I talked to. He only needs the application as coaching, not the reports and all the calls. The application tells him exactly what he needs to think about.”  
— Coach Y

“FA is very popular in Finland. Especially the young drivers are using this application, they enjoy using it and there are a lot of questions about it. There is quite a huge number of drivers that are using this every day.”  
— Driver Training Manager

“If the reports could be automated or semi-automated so we could reach the reporting interval, something between 2 to 4 weeks, it would be great and then we would make a call, for example, every second month. That would be really good!”  
— Driver Training Manager

The third pain point is “the coaches struggle to find the most suitable approach for each driver”. All the coaches press that everyone should be coached no matter grade. They believe that the service might gain a bad reputation if only drivers with less good grades were to be coached. Consequently, it might make the drivers feel like they are bad drivers, making them lose trust in the service. If everyone is coached, the coaches believe that it is more fun for the coaches, since they get to coach drivers with more varied results, and that the drivers get a good feeling about the service. However, one expressed problem about coaching all drivers is that drivers with good grades are difficult to find the most suitable approach for. They are already good and have less to improve, but the coaches still think that they need that motivation to keep doing a good job.

When expressing that it is hard to find a suitable approach for good drivers, the coaches also expressed that they have a hard time finding the most suitable approach for the drivers with less good grades. These drivers are either questioning the grades or starting to lack trust in the service. This questioning leads to the coaches having to look at more than just grades to create a more individualised approach for each driver.
“In one of the calls, the driver was a bit sad because he could not understand how his grades were lower than the other drivers’ grades. But when I mentioned that his fuel consumption was better compared to the other drivers, he realised that if he looked at the fuel consumption he was pretty good. In these cases, you notice that the driver sees that maybe he doesn’t need to have straight A’s and it will be fine anyway.”

— Coach X

“We place great emphasis on getting to coach the good drivers as well because they always want us to coach the bad drivers and I understand why. But think about it. If you coach everyone and invest a lot in those who are good as well, the coaching gets a finer connotation.”

— Coach Y

5.3.2 Trust

The first subtheme to individualisation is trust. Trust is one of the most important factors that make the relationship between the coach and the driver work. If the trust to the coach is lost, the driver will not be as willing to be coached anymore, so the coaches mention that they need to make an effort to keep that trust.

This trust issue leads to the fourth pain point which is “the coaches struggle to gain and remain trust from the drivers”. Trust revolves partly around grades or seeing the coach as a person that cares about the driver. According to the coaches, the foundation for trust is built during the initial meeting. The coaches perceive it as problematic if they do not get to meet the drivers before the coaching starts. In that case, it is hard to know if the drivers are even suitable to be coached. If the drivers are not, coaching turns into a job that lacks meaning.

“I tried to coach without having met the drivers in person and it did not work well. Immediately when we got to see one another, the coaching went much better and trust could be built between us.”

— Coach Y

“I find it being the most important part of it all. Because am I supposed to call someone whom I know nothing about or whom I have never met? That would have been difficult.”

— Coach W

The fifth pain point is “drivers do not understand or trust the grading system”. When it comes to the call, the drivers can question or not understand the grades, making the coaches have to explain the grades and provide the drivers with more data. The questioning of the grades is something that the coaches struggle with since they try to keep the time spent on preparations and calls short, while remaining the trust from the drivers. Furthermore, the coaches claimed that some drivers think that the coaches know everything since they represent Scania. Since the coaches are sometimes the only contact to Scania that the drivers have, it makes the coaches have to understand the grading system.
“If you spend a lot of time analysing the data, will you get a change in the grades? Well, I don’t think so. But at least the driver knows that the people at Scania have done the job thoroughly and that they are people who know what they talk about. So, I understand why they analyse the data a lot in Denmark. Because, when the drivers know that you come from Scania, then you have to know everything.”

— Coach Y

The sixth pain point is “drivers want the coaches to reveal co-workers’ grades”. Many drivers are difficult to handle since they want to know other drivers’ grades and data. These drivers are often trying to get hold of the information by asking the coach. This information is wanted if the drivers are not accepting their own grades, resulting in lack of trust to the system, or when the transport companies have some kind of top-list that they show to the drivers. The information about other drivers’ grades might add motivation to some drivers, but it also causes problems for the coaches, since they get pushed into giving personal data, as well as it can start conflicts between co-workers. This can also be a problem since a driver might be satisfied with the achieved grades, but after hearing that a colleague has better grades, the driver can start questioning the system and the coaches feel like they have to provide answers.

“I don’t care that much about the grades, but I know that others do. Sometimes, there may be wild discussions at meetings as some colleagues feel that the grades are unfair and that some only have driving routes that simply cannot give good grades due to the need to use the clutch all the time. Only a day ago, there were wild discussions at the office because of the grades.”

— Driver

The seventh pain point is “the coaches cannot store information about the drivers and calls”. The coaches take care of a lot of drivers, and it can be difficult to remember all the calls and information that the drivers share in the calls. Since information cannot be stored in CT, it makes coaching tricky since small talk and follow-up are important ways to gain trust from the drivers. Instead, all the observed coaches had created their own Excel spreadsheet for the purpose of storing information.

“One possibility that would have made it easier is probably if it was possible to store comments, in coaching tool, about the conversation. There is already a possibility to save the reports, but there is no place to note what I have been talking to the drivers about. It could have been possible with a tool. Now I have to enter Excel to write what we have talked about and when. If that was possible in coaching tool it would have been a lot a lot easier.”

— Coach Y

“If there is a file on my computer or in a notebook, then no one else can access that information if I quit or if I’m ill.”

— Coach X

5.3.3 Communication

The second subtheme to individualisation is communication. The coaches expressed that communication is key when it comes to services like Driver coaching and that they need to be able to both communicate to Scania about their problems but also have an easy way to communicate to the drivers. This leads to the eighth pain point which is “the coaches lack support from Scania”. Today,
there is a lack of communication between Scania and the coaches, as well as lack of sufficient communication channels for everyone involved in the service to easily cooperate. Consequently, the coaches feel like they lack support from Scania. The coaches feel like they have not had enough education on how to coach or even how to use the tools. They further lack knowledge about whom the other coaches are, leading to the fact that they do not know whom to contact if they want help or tips about coaching. They also share that they do not know whom at Scania to contact if they have troubles with the tools or if they want to give feedback about it.

“You must have the basic prerequisites and above all, I would like to have more contact with those who have made the coaching tool so I can easily present opinions and improvement suggestions. Maybe I’m working the wrong way in the tools. Or, it may be so that my way of working would make it easier for many others. I really think that those who work as coaches should have some kind of follow-up with those who develop the system.”

– Coach Z

“You should receive education in how to use the tools because we have never got that.”

– Coach X

The ninth pain point is “time is spent on preparing reports and calls that are neither read nor answered”. CT does not support the coaches in providing information about whether the drivers are at work or not. A lot of the drivers work in shifts, which makes it even more difficult to keep track of their schedule. The coaches only have Fleet position in FMP to help determine the drivers’ activity status, and that is if they have gotten permission to use the transport companies’ FMP. According to Scania, there is a way to see in CT if the drivers are active or not, but there is lack of communication since all the coaches do not know that. As a consequence of the coaches not knowing which drivers are at work, they prepare for calls that might not be answered due to the driver being off work. This is time-consuming and the calls can be moved to another time, resulting in the latest report containing old data. Something that is also time-consuming is the creation of reports. The coaches create reports that are not read by some drivers. This leads to the coaches having to spend extra time in the call to talk about the grades and the report when a driver could already have been up to date with it.

“The practical problem with coaching, when you’re not working full-time, is that I sit down a day at the office and plan to talk to these drivers. I mentally prepare for it; which drivers and companies I intend to call. Then it turns out that those I’m supposed to talk to are not at work, and then I have prepared with no results. To add to that, there are also some difficult dialects that I cannot understand and then communication becomes a problem.”

– Coach Y

“The main problem is that when the drivers are working, it is often very intensive so they don’t have time for the report and the call. During their breaks it’s also a bit tricky to reach the drivers. They just answer now and then.”

– Driver Training Manager

The tenth pain point is “important information is spread out in different tools”. The coaches feel like they cannot use the tools properly and that they do not have anyone at Scania to share their thoughts with. The coaches all use FMP even though they are meant to only use CT. The coaches would rather
just use one tool, but they feel like they lack necessary information in CT. To be able to use CT properly, important information that can be found in FMP should be transferred to CT. Now, when information is spread out in different tools, it makes the coaches confused and forget where to find the information they are looking for.

“It’s a good question that I’ve asked myself many times, why am I using FMP and not coaching tool? For example, if you look at FMP, the reports have a trend curve so you can see the grade over a longer period of time. You do not get that in coaching tool. A combination of these tools would be the best solution.”

— Coach Y

The last pain point is “the coaches cannot share detailed tips and comments with the drivers, except in the calls”. The only way for the coaches to share detailed tips and comments is through the calls since CT does not allow comments to exceed four rows of text in the reports. However, the coaches expressed that not all people are very fond of phone calls. Some drivers find it much easier to grasp what is written than what is said in the call. The coaches also say that one cannot communicate with all people solely through the calls since some drivers lack time or struggles with the language. The coaches have also noticed that some calls might be shorter if they have written more detailed comments in the report since then they can go straight to the point during the call. The coaches want to write longer comments to some drivers and some coaches even create the reports in other tools than CT so they can share more detailed comments in the reports. Furthermore, the call and the report are restricted to a certain time of the month which means that immediate feedback on grades that are deviating cannot be shared.

“We used to write comments in the reports and also comments about what we had talked about, but we are not supposed to do that anymore. The information I have received says that drivers should pick up the grades they receive in the report and that you should take most information in the call. But I find it very easy to express myself in writing and think that writing was a good way of working. Both to write something in the report and after the calls actually. But I don’t make the decisions.”

— Coach W

“I use FMP since when I call the drivers, they might ask a lot of things. Sure, I always write a lot of things in the report, because you can’t just sit and talk for an hour with the drivers. The average driver could talk for two hours if you just let him speak. That’s why I have decided to write quite a lot in the report. A little problem with CT is that you can only write 2-3 rows of text. I would rather see that you could, if you want to, write more in there.”

— Coach X

5.4 Ideation

The ideation with the Design with Intent toolkit resulted in 63 ideas. The ideas were grouped together, based on similarities and possibilities to be combined, which resulted in six concepts, see Table 3. All the concepts deal with several and different touchpoints. Furthermore, some of these concepts were combined to give a final design proposal.
<table>
<thead>
<tr>
<th>Concept Name</th>
<th>Concept Description</th>
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<tbody>
<tr>
<td><strong>Communication channels</strong></td>
<td>An easily accessible chat function in CT can make it possible for the coaches to contact Scania whenever there is a need for support. To reduce the workload for Scania and to make it possible to share experiences and knowledge between the coaches, a group chat like Slack is a possible solution. A FAQ should be included to reduce the number of questions in the chat, facilitating both the coaches’ and Scania’s work. Scania should also be able to easily reach out with information to all the coaches by having a chat function like this.</td>
</tr>
<tr>
<td><strong>Individualised coaching process</strong></td>
<td>The idea is that the coaches should check with the drivers what form of coaching fits them the best. There should be an ongoing dialogue about how it has worked so far, and adjustments should be made to achieve the most suitable arrangement of the service for each driver. To make this possible there should be a profile, where different preferences can be selected, in CT for each driver. Trying out new arrangements of the service should be encouraged by Scania to find out what works and what does not. However, in the beginning, each driver should receive a phone call and a report once a month. After a while, the channel for coaching, how often coaching occurs, content, goals and assigned coach can be changed to fit the driver.</td>
</tr>
<tr>
<td><strong>FA as a touchpoint</strong></td>
<td>Since many drivers use FA, the application can be included in the Driver coaching service. Drivers who use FA might not need a phone call as often as once a month. Something that needs to be added to the application is that it should be possible for the drivers to view an overall grade and the report. The application can also enable the coach and the driver to communicate with each other on occasions other than the call. Additional suggestions are that the application automatically can send the drivers encouraging messages when improvement is made and that the coach can get notifications in CT when a driver’s grade is deviating, making the coach able to give feedback more quickly.</td>
</tr>
<tr>
<td><strong>Target Goals</strong></td>
<td>To motivate the drivers and to help the coaches find a suitable approach, it should be possible to choose which of the six categories the drivers receive grades in to focus on and divide them into more attainable goals. For example, if the coach and the driver choose to focus on two of the categories, those two are the ones that the overall grade takes into account. These goals and the progress towards reaching them should be included and highlighted in the report. As progress is made, new goals can be set. Since the drivers’ goals can vary, comparisons between drivers’ grades become more difficult.</td>
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<tr>
<td><strong>Tips and approach</strong></td>
<td>Continuous courses and easily accessible guides in CT can educate the coaches in different coaching approaches and keep their knowledge up to date. The information should cover, for example, how to handle different types of drivers and personal data, such as other drivers’ grades. A FAQ should be included with real-life examples of how other coaches have handled a similar problem or situation.</td>
</tr>
<tr>
<td><strong>Visualisation of results</strong></td>
<td>An improved visualisation of the drivers’ results can help motivate both drivers and coaches. In CT it should be possible to choose one of the categories, reflecting driving behaviour, to improve in and set a start date for when that goal was set. The starting point of the grade should be saved and it should be possible to follow the progress in detail. When a goal has been reached, a picture can be created that can be shared on social media. In addition, it would be good to visualise the drivers’ estimated impact on the environment and the transport companies’ fuel costs to further motivate the drivers and the coaches.</td>
</tr>
</tbody>
</table>
5.5 Design Proposal

The design proposal is called “Individualised Driver Coaching”. The concepts that were combined to create the design proposal, with some small changes, were “Individualised coaching process”, “FA as a touchpoint” and “Target Goals”. In the design proposal, individualisation is a central part and this is enabled by having a driver profile in CT, which can be updated whenever needed to fit the driver’s preferences of the arrangement of the service. The options in the driver profile make the coach able to individualise the coaching together with each driver. A brief proposal of what the driver profile could look like is seen in Figure 25.

![Figure 25 - Driver profile in CT.](image-url)
The driver profile helps the coach to remember how each driver wants to be coached. The first individualised part of the driver profile is what channels for coaching should be used and they are call, report and FA. The second part is target goals which consist of all the categories, for example, speeding and idling, from the old CT. When it comes to adjustments to the arrangement of the service, these should be made to suit the driver. To help the coach with suggestions, there will be guidelines in CT. The decision should be a mutual agreement between the coach and the driver. If a new arrangement of the service is to be tried out, the coach has to update the driver’s profile. When updates are made, the driver will receive a notification. These updates will be sent to FA if that option is selected, in the driver profile, as a channel for coaching. Otherwise, the notification will be sent to the driver’s e-mail address. In FA the driver can view the driver profile and update the contact information, but other changes to the profile can only be made by the coach in CT.

The first channel for coaching is the call. In the beginning, each driver will receive a phone call once a month to get a good introduction to the service and to be able to build trust with the coach. After a while, when enough data have been gathered about the driver’s performance, the frequency of the calls can be reduced, but that option is only available for drivers with high grades. In the driver profile, the coach can also select content in the calls. The selected content is based on what kind of information the driver is interested in receiving or discussing during the calls, and it gives the coach an idea about how to prepare. Examples of options for content are grade, fuel consumption and vehicle.

The second channel for coaching is the report. The driver will always receive a report once a month, just like before. However, in this design proposal, the driver can choose if comments from the coach are wanted or not and this is specified in the driver profile. The driver might prefer written feedback and then more comments can be included in the report and the length of the call can be kept short. If a driver wishes to receive comments in the report, the coach has to create the reports manually in CT. If the option “No” is selected for comments, CT automatically creates the reports and sends them to the driver. Just like the notifications, the driver will receive the reports in FA if that option is selected as a channel for coaching. Otherwise, the reports will be sent to the driver’s e-mail address.

The third channel for coaching is FA. FA is the new touchpoint of the service that this design proposal suggests. It is a touchpoint that already exists between transport companies and the drivers, but it has not been used for coaching before. The new proposed service process with FA can be seen in Figure 26. With FA the coach can send a comment to the driver, making FA a channel for coaching and creating an opportunity to reduce the frequency of the calls. The comments are created by the coach in CT, which is connected to FA. The comments can vary in length depending on how much the coach wants to bring up. Furthermore, the driver can send messages to the coach if there are any questions or if the feedback is unclear. The coach can also send messages to the driver and get notifications in CT when a driver’s grade is deviating, making the coach able to contact the driver whenever needed.
Figure 26: The to-be service process with FA added as a possible touchpoint.

- **Initial meeting**: Coach meets the drivers that he or she will coach.
- **Report**: Coach creates reports to all drivers wanting comments in report. The rest of the reports are automatically created and sent by CT.
- **FA**: Coach writes comments and send them to the drivers wanting them in FA. For other drivers this step is excluded.
- **Coaching session**: CT suggests which driver to call and the session begins. This cycle is repeated for all coached drivers. Once finished, the coach goes back to creating reports.
- **Coaching ending**: Coaching ends when coaching contract expires.

- **Documentation**
- **Preparation**
- **Call**

Coach updates driver profile if there are any new arrangements of the service.

⚠️ Unexpected ending of session can occur, making the cycle repeat with another driver.
As previously mentioned, the second individualised part of the driver profile is target goals, see Figure 25. The idea is that the driver and the coach can discuss and set up individualised target goals for the driver and save them in the driver profile. A target goal consists of a category, for instance hill driving, and a grade, for instance a B. The driver chooses which category, or categories, to focus on and which grade that the driver wishes to achieve. The target goals also make it possible to break down a large goal, for example achieving A as an overall grade, into smaller more achievable goals. If the driver has chosen a target goal the progress in that category will be visualised in CT, the report and also in FA.

As mentioned previously, a driver profile enables automation opportunities in CT, where the report can be automatically generated by CT if the driver does not want comments from the coach. The driver profile also enables the system to provide reminders for the coach as well as further automation. The start page for the coach can show which drivers that should be prioritised to coach and send reports to, see Figure 27. On the start page, there can also be a list with each driver the coach is responsible for to coach, and the list can be sorted by name, transport company, grade and latest call. Something that will be in the tool as well is a coaching log, where the coach can log the date when the calls have been made, instead of logging it in Excel as the coaches do today. This enables CT to know when the next call/FA comment is supposed to be made.
5.5.1 Scenario

To show an example of how the design proposal can work in practice, a scenario is explained and visualised below in Figure 28. The figure shows the service as it is today and how the service could work with an individualised coaching arrangement. The driver in the scenario, Thomas, likes technology. The coach and the driver changes the arrangement of the service over time to find the most suitable arrangement for the driver. In Figure 29, a detailed customer journey is visualised, for the months May and June, showing the activities the coach performs.
Figure 28 - Coaching over time, current vs individualised Driver coaching service.
Figure 29 - To-be customer journey. The second half can be seen on the next page.
6 Discussion

In this chapter, the used methods and the obtained results are discussed critically and related to the theory in chapter 3.

6.1 Result Discussion

This section discusses the results of the ethnographic findings as well as the design proposal and discusses the results in comparison to the previous study.

The aim of the thesis was to explore how a driver coaching service could be individualised to each driver. A design proposal was also on the agenda to be developed for Scania’s service Driver coaching that could create value for both the coaches and the drivers. By conducting an ethnographic study, the researchers attained rich data about the coaches’ background, their thoughts and opinions about the service as well as how they are approaching different drivers. By having all this information, a very detailed customer journey was created that can be used by Scania in the future to evaluate and understand the coaches’ work. All this important information was the key to create a design proposal that could create more value for the coaches, partly by reducing their workload making them not having to perform tasks that are not essential for each driver. Furthermore, by reducing the coaches’ workload and adjusting the coaching arrangement to each driver, there is a possibility that the service also creates more value for the drivers since they get a customised service that suits their needs and goals more.

6.1.1 Ethnographic Findings

The results from the ethnographic study and the analysis of the data ended up showing a lot of unexpected, interesting activities and insights. To be able to study what the coaches do, and not only what they say that they do, has made the validity of the results much stronger. The customer journey turned out to be more informative than most customer journeys are. The amount of details that are included could be a result of that the journey is based on real-life experiences from the observations and several journeys instead of a fictional journey. The customer journey shows all the activities that the coaches performed during the observations and no observed activities were left out. However, the activities are only performed by four coaches and the rest of the coaches within the service might not perform the same activities at all, which can be questioned. Nevertheless, the result of the customer journey can always be further investigated and evaluated with other coaches in the future.

Out in the field, it came to the researchers’ attention that the coaches used FMP more than they used CT. This was something that was unexpected since the researchers only thought that FMP was used as a compliment, not that the coaches used it almost all the time. However, the result might have been affected by a few factors. One of the observed coaches was only coaching drivers at the same transport company as the coach worked as a driver for. This affected the observations since this coach was not even supposed to use CT due to the coach following the transport company’s way of working instead of Scania’s. To add to that, one of the coaches had problems with CT, making FMP an even more obvious tool for the coach to use, and therefore the use of CT was only observed in one market. If a coach that does not use FMP would have been observed, the results would probably have been different.

When discussing the tools, an interesting thing was found. All coaches had created their own document where they gathered information about the coached drivers. They all had a document that was made in Excel and surprisingly they looked almost the same. The coaches had all created their documents by themselves, without knowing that other coaches did the same. The coaches saved the same kind of information, consisting of the date when the calls had been made, what they had talked about and
what was to be done until next time. It seems like there is a need for this kind of documentation to be implemented in CT and further a driver profile is needed. To support this, Hattie and Timperley (2007) claim that the coaches, in order to give effective feedback, need to present feed up, which means that the coaches need to know what goals the driver has and keep track on what they have talked about before. If feed up is not a part of the feedback, it will not be as effective. Furthermore, Hattie and Timperley (2007) claim that the coaches need to give feed back, which corresponds to the progress towards a goal. However, the coaches all expressed that there is no distinct way to see in CT how a driver has improved over time.

Before the thesis work was initiated, Scania was thinking about whether coaching could have a target goal, and if the frequency of the coaching could be reduced when the goal was reached. A target goal is something that was found to be almost necessary when giving feedback to someone. As Hattie and Timperley (2007) mention, feed forward is the last part of effective feedback. Feed forward corresponds to information about what a driver should do next in order to achieve a set goal. In the grading system within Scania’s Driver coaching service, the grades for each category can be seen separately, but the drivers also get an overall grade which often is the grade that they compare with co-workers. According to Hattie and Timperley (2007), the coaches need to assist the drivers and provide challenging and specific goals, since they make it easier for drivers to focus their attention, and the feedback can also be more focused. The coaches often tell the drivers to focus on one of the categories as a goal until the next call, but since the report and the overall grade do not show this goal, neither the driver nor the coach gets support to just focus on one goal at a time. It is clear that target goals are good to have and that a driver coaching service can have them. What remains unanswered is whether coaching can be reduced after a target goal is completed, but the design proposal makes this choice possible.

According to Hattie and Timperley (2007), coaching should include feedback that, as mentioned previously, consist of feed up, feed back and feed forward. Something noticeable that appeared in the results of the observations and interviews was the fact that small talk is an essential part of coaching. The small talk is a time-consuming part of the call and it can be difficult to address what it contributes to when it comes to results, but as discovered, it is still important for coaching. The researchers found out that small talk is so important that without it, the drivers could lose interest and trust in the whole service. Blomquist and Röding (2010) claim that good coaching can only be done when there are professional trust and equality between the coach and the driver, which shows even more how important it is for the coach to keep that trust.

6.1.2 Design Proposal

The design proposal “Individualised Driver Coaching”, has the same foundation as the original Driver coaching service. The most prominent difference is that the drivers get a driver profile where the arrangement of the service can be adapted to each driver since different drivers have different needs. To fully provide an individualised service, Bettencourt and Gwinner (1996) write about the possibility to store information about each customer’s preferences since it can be an asset to companies and their frontline employees if they wish to achieve service customisation. During the observations and interviews it emerged that the coaches sometimes struggle with how to approach different drivers. The driver profile will help with finding the most suitable approach for each driver since the coach will discuss the arrangement of the service with the driver and have the preferences saved in the driver profile. The suggestion in the design proposal is that the arrangement of the service includes choosing the frequency of coaching, what channels that should be used for coaching and what specific goals the driver has. As Clatworthy (2017) mentions, service designers look for opportunities to introduce potentially new and more effective touchpoints and remove weak ones, which has been done by adding FA as a touchpoint and making the reports semi-automated.
He, Greenberg and Huang (2010) claim that “one size does not fit all” is true when it comes to designing a service or a product since motivation is different for everyone. Individualised coaching can make this personal motivation easier to target since the coach is able to arrange the service to fit the driver’s preferences of how often to be coached, written versus oral feedback and what goal to focus on. However, it is still important to not offer too many options, without giving guidance or help, since it can create a demotivating experience for the user, as Bisset and Lockton (2010) claim. Therefore, guidelines in CT can help the coaches with adjustment suggestions. The design proposal includes individual and specific goal setting which Hattie and Timperley (2007) claim is important when it comes to coaching. The design proposal also offers the possibility to exclude grades. For example, the idling grade can be excluded during winter since it mostly makes the drivers frustrated since it is difficult not to idle when it is cold. The same principle can be applied to drivers that have driving routes in the city. These drivers have a hard time to drive with cruise control as well as dealing with anticipation. To be able to change the target goals whenever needed, to suit the drivers’ individual needs, is something that Moritz (2005) claims plays a big role in motivation. A solution that enables goal setting would be a way to make the system help the coach to provide feedback that the drivers can understand and accept.

According to Nash and Winstone (2017), the teachers are responsible for providing feedback in a motivating way and make sure that there are several opportunities for dialogue. FA makes the driver able to contact the coach whenever there is a question, facilitating the opportunity for communication. However, it is important to still make the calls, but less frequently to some drivers, according to the coaches and according to Blomquist and Röding (2010), who claim that feedback is usually best if you give it orally.

At the beginning of the thesis, Scania was wondering if coaching can be automated and if so, how it can be done without losing customer value. The big difference with the design proposal, when it comes to the coaches’ perspective, is the decreased coach workload since some parts of the coaching can be automated or reduced. To facilitate the coaches’ planning of which driver to call, CT can support the coaches by suggesting in which order to coach the drivers. The workload, seen in Figure 28, is only hypothetical since no tests were done to confirm the actual workload. As seen in the figure, the coaches’ estimated workload will be greatly reduced since the reports can be automated and the drivers might not need a call every month. Even though the drivers might not receive a call every month, it is believed that the solution will not reduce the value for the customer but simply make the value stronger since the drivers can affect the arrangement of the service. If the workload is reduced, the coaches need to do something else with their time. Individualised driver coaching might make the coaches able to coach more drivers or have more time for their other work tasks. However, the coaches’ acceptance of this change is unknown. What the coaches will do instead is something that cannot be confirmed without talking to managers at Scania and the coaches themselves. There is also a great question about what an individualised service would cost since this was something that the thesis delimited.

6.1.3 The Results in Relation to the Previous Study
When looking at Hantos Albertsson’s (In press) study, where she was talking to drivers and transport companies about Scania Driver Services, it is interesting to notice that she found three themes of which two of them, trustworthiness and transparency, are somewhat similar to the identified themes in this thesis. An issue that also the coaches expressed in this thesis was that they felt like the drivers were lacking trust to the grading system and that the coaches did not trust the system themselves sometimes. One main problem was that both the drivers and the coaches expressed that with some work routes and during certain weather conditions it was not possible to get a good grade. This trust issue is something that Nash and Winstone (2017) discuss is agency, the third barrier when giving
feedback. If the drivers feel insufficiently equipped to deal with feedback and that dealing with it would not make a difference, providing feedback will not make a difference.

One thing that the design proposal includes that can partly solve the problem with trust to the system, is that the design proposal offers the possibility to exclude grades. A solution that enables goal setting would be a way to make the system help the coach to provide feedback that the drivers can understand and accept. Furthermore, a list was presented in chapter 2 with some design challenges. These challenges, that Scania Driver Services could support, were identified by Hantosi Albertsson (In press). Below are those challenges with answers to how the design proposal could support the challenges.

Individualised driver coaching could help Scania to:

- **Strengthen the truck driver’s experience of the manufacturer’s brand.**
  - The truck driver’s experience of the manufacturer’s brand is strengthened since the service offers the driver a customised arrangement of the service which hopefully provides more value.

- **Enable a clearer understanding of feedback provided by current Driver coaching offering.**
  - The feedback may be clearer since the driver now can send a message to the coach in FA whenever a grade is deviating.

- **Ensure that the truck driver’s personal motivation becomes obvious to the transport company.**
  - In the current Driver coaching service, the transport companies receive a report about all coached drivers. With target goals, it can be visible that some drivers are just working on one grade and that everyone is not looking for a full set of A’s in the beginning.

- **Ensure that the truck driver feels important and seen by the manufacturer as well as the transport company.**
  - The driver will feel more important since Scania makes sure that the driver gets a customised service as well as that all drivers get coached, no matter grade.

- **Ensure quality of coaching conversations.**
  - The quality will be ensured by each driver having a driver profile through which the coaches will always know what each driver wants to talk about and thereby be able to customise the service and the conversation towards the driver.

This list needs to be further confirmed with coaches, employees at Scania as well as drivers to be fully valid.

### 6.2 Method Discussion

The method discussion is divided into the performed phases of the thesis and it also includes a section with source evaluation.

#### 6.2.1 Research Phase

In this thesis, the focus was put on the coaches in Scania’s service Driver coaching. Both observations and interviews were made, as Simonsen and Kensing (1997) recommend, and they resulted in a large amount of collected data. An issue with the ethnographic study that was conducted was the time and resource limitations. The coaches only perform the coaching sessions and create reports during a few days at the beginning of each month, which created limited possibilities to study the coaching process. To handle the time demands, to some extent, strategies from rapid ethnography were used. Millen (2000) claims that rapid ethnography can be used by a team to understand the users faster and cheaper without sacrificing the quality of the observations. According to the author, one strategy to deal with time demands is to narrow the focus of the field before entering it by zooming in on important activities. Therefore, the researchers decided to only observe coaching sessions since the coaches...
create the reports approximately 1-2 weeks before the coaching sessions and it was not possible to visit the coaches’ multiple times.

When observing the coaches, two researchers were used in the field, which might have affected the validity of the results both positively and negatively. Millen (2000) argues that using more than one researcher in the field at the same time can save time and make language and cultural differences easier to handle. When observing and interviewing, it was found that the two researchers could help each other to overcome language barriers that were experienced during the sessions in Finland and Norway. However, Millen (2000) also mentions that being several researchers in the field at the same time can affect the study since it disturbs the natural setting. Something that the researchers had to think about during observations was that there are ethical guidelines to consider. Both the coaches and the drivers knew that the researchers could hear their conversations. It is difficult to tell how this affected the calls, but almost all the coaches and the drivers seemed relaxed and were able to small talk like they normally do, according to the coaches.

Furthermore, the layout and setting of each observation session differed. The researchers believe that the layout in Norway, with the coach sharing the computer screen on a projector screen, was probably the best for the researchers but the most disturbing for the natural setting. This layout enabled both researchers to see clearly how the coach worked in the tools. The layout in Finland, with one researcher not able to see the screen, was the least favoured. The layout enabled only one researcher to see what the coach was looking for in the tools while the other researcher missed a lot of important information. To increase the validity of the results between the three sessions, the same layout could have been used for all observations.

All of the observation and interview sessions with the coaches were audio recorded to increase the validity of the results. During the interviews, this method contributed to increased attention on what the coaches were saying. It also offered the opportunity to transcribe complete quotes, which could be used throughout the analysis phase. During observations, van Boeijen et al. (2016) recommend video capture for documentation of the results. Using video capture, instead of only audio recording, more details could have been captured. However, as van Boeijen et al. (2016) mention, video capture is time-consuming. Audio recordings have the same issue, but they only require listening. As mentioned earlier, the method returned many quotes that otherwise would have been lost, and it was also a helpful tool to overcome language barriers that were experienced during the sessions in Finland and Norway.

To conclude the discussion of the research phase, the ethnographic study revealed that all the observed coaches worked in a similar way. However, it is believed that the results from only observing three coaches for a few hours cannot be representative for all markets. Furthermore, it is believed that other researchers would have attained other insights since researchers’ background and what they are looking for during the study can affect what design ethnography reveals.

6.2.2 Analysis Phase

When the data was collected and an overview could be seen, it was quickly realised that the data was just as rich data as Millen (2000) describes that ethnographic research typically provides. If the data would have been collected by doing questionnaires, it would probably have been easier to analyse and visualise in tables and graphs. Moreover, some of the results from the observations and interviews might have been more valid if they would have been supported by results from a questionnaire since more coaches could have been involved in the ethnographic study.

The analysis of the collected data was extremely time-consuming. Even though affinity diagram was used as inspiration when clustering the quotes, as Preece, Sharp and Rogers (2002) describe is good
since it can help to structure insights, it was still difficult to understand the data since it was so rich and there were no clear instructions for how to cluster. It is uncertain if another method would have been better, but the quote clustering was a good way to really scrutinise the data and to get information that was needed to support the continued analysis. Since the quotes were clustered multiple times, the results of the clustering can be considered as valid. However, if other researchers would cluster the same quotes, they would probably not choose the same key quotes in the end since perceptions about what is most relevant tend to differ between people.

Since there were so many quotes, there was a need to step back from the raw data and visualise some of the findings to get a better overview and to identify themes. Segelström, Rajmakers and Holmlid (2009) claim that ethnographic data is not supposed to be reduced, but some reduction needed to be made to actually be able to understand the bigger picture of the data and to facilitate the transferring of the findings to Scania. It was difficult to know how much data could be reduced while not losing too much valuable data when making visualisations and a design proposal based on the ethnographic data. According to the findings from the workshop that Segelström, Rajmakers and Holmlid (2009) conducted with service designers, it might be difficult to practically apply ethnography in service design processes. It was during the reduction of data that the real friction, between practically applying ethnography in a service design process, became clear. When conducting an ethnographic study, the researchers become a valuable part of the result. The researchers possess a lot of information that cannot easily be transferred to someone that has not been involved in the field study. This makes the researchers a valuable information source for the company.

A customer journey was created based on the data from the observations. This journey was used as a tool for the continued analysis and was one of the reasons that the data was reduced. According to Segelström (2010), a customer journey should capture the customer’s perspective, what they see and experience, and not explain how the service works. Here, another approach was used to include and communicate more data with the visualisation. Segelström (2010) explains that a customer journey is a dynamic tool that can take many forms and should be seen as an inspiration rather than a guide. It was important to show Scania how the service actually works from the coaches’ perspective instead of the drivers’, who are the real customers. The performed coach activities were added and the emotional curve was kept in the sense of service satisfaction with quotes that are inspired by the coaches’ original quotes. The service satisfaction curve, together with the quotes, is not as valid as the activities in the customer journey since it is a representation of data that the researchers have analysed. It might have been more effective to only show the emotions the coaches feel when doing the coaching, but since Scania did not have a clear description for why coaches look at data and how they work, it was necessary to make sure that the data was available to them. Moving forward, it was also important for the researchers to have an agreed view of the coaches and their work. However, the coach activities have only been identified by observing three coaches and doing a complimentary telephone interview with an additional coach. The activities are not necessarily valid for all markets and all coaches; there might be a hundred more unidentified activities and some coaches might even disagree completely with the created customer journey. To validate the result, it would have been interesting to send the customer journey to all markets and receive feedback from several coaches. The customer journey turned out to be a good way to more easily interpret the data.

The service design visualisation resulted in that more insights were found and that the data, that was important for the thesis and for Scania, was made more accessible. When the customer journey was done it could be used to speed up the analysis since it became easier to identify pain points and themes. To increase the validity of the pain points, which were based on what the researchers experienced out in the field, these could have been reviewed by the observed and interviewed coaches or other coaches. Of course, a lot of the data was lost when analysing the ethnographic data with a service design approach, which is against what ethnography stands for, but some data had to be reduced to produce one consolidated view of the findings.
6.2.3 Ideation Phase

The ideation phase was built upon the results from the ethnographic study and this might have affected the work since the pain points and insights from this study were the foundation for the idea generation. According to Wetter Edman (2011), when taking a service design approach one should engage the users and stakeholders through co-creation workshops. A workshop was never conducted together with the coaches or employees at Scania because there was not enough time left due to the ethnographic data being so time-consuming to analyse. The coaches were also geographically dispersed, making it more difficult to arrange a workshop. It would have been interesting to see if a workshop with coaches would have resulted in similar ideas as the researchers came up with. Since the coaches have not been directly involved in the final concept, the validity of the result might have been affected in the sense that coaches might not like the idea or they might have come up with totally different ideas.

When doing research about service design and ways to motivate users by design, the Design with Intent toolkit appeared. This toolkit is very specific and Lockton (2013) claims that it is intended to be used when designing for behaviour change, which is something that a driver coaching service strives to do. The fact that the toolkit is so specific might have its pros and cons, but it was a way to generate ideas and was thought to suit the process. Lockton, Harrison and Stanton (2010) mention that the toolkit is supposed to be used with a group of people that can split into pairs to discuss the cards together and then present their ideas to the other groups. Since a workshop with the users or stakeholders never was arranged and the researchers were the only two generating ideas, it was not an option to use the supposed approach for the toolkit. However, using the method with only two people was not experienced as a problem, partly since both researchers have experience with creation of ideas due to their educational background, and partly since the researchers were more familiar with the insights from the ethnographic study than other actors would have been.

As Segelström, Raijmakers and Holmlid (2009) found out in a workshop, it might be hard to inspire idea generation on data from an ethnographic study. This was understandable when the data was raw, but after it was visualised in a customer journey and pain points were identified, it was easier to grasp the data and use it together with the Design with Intent toolkit to generate ideas. The ethnographic data provided the researchers with compassion and understanding of the coaches’ role and made it possible to generate ideas based on their needs and pains.

When taking the approach of target behaviours, with the toolkit, it gave an opportunity to create solutions based on the results of the ethnographic study, and it was quite easy to convert the target behaviours to suit the pain points and the insights. However, Lockton, Harrison and Stanton (2010) discuss that target behaviours might not be the right approach for the toolkit since some designers feel constrained when using prescription methods. When the approach of target behaviours was used for the toolkit, it was noticed that many of the cards were not suitable for the purpose of the design proposal. There were a lot of cards that revolved around changing an already existing solution or process, but the generated ideas were only supposed to be an inspiration source for Scania in how they could work with individualisation, not a complete up and running solution. Some changes had to be made to the method target behaviours so it would fit the purpose of the design proposal more. For example, some of the cards were put aside and were not used when generating ideas.

When choosing a concept, no specific method was used. A list for each concept was made that showed all their pros and cons and which pain points they supported. Based on which concepts that covered the most pain points, it was considered that the best concepts were chosen, although another more proven method could have been used to create a more valid and reliable choice of the design proposal.
6.2.4 Source Evaluation

Different types of sources have been used for the theoretical background, most of which have been books, scientific journals and reports. Some of the sources are from the internet, where great emphasis has been placed when choosing them. The internet sources are from Scania and Design with Intent websites since information from these is not easy to access in literature. The credibility of these sources was considered to be high since it was presumed that it is the organisation itself that is responsible for the content of the websites. It has been difficult to find literature about driver coaching since the field is not so well researched and therefore most sources about coaching come from school examples.

Efforts have been made to use sources published after 2008 to ensure that the information provided is not outdated. However, there are some of the sources that are older. Many of the older sources have been used since they provided important information about coaching that could not be found in more recent sources. Furthermore, some of the older sources are early service design sources that have been used to understand how service design has flourished and why. The older sources also provided information about ethnography where these are better recognised, which in some cases might apply more credibility to the thesis.
7 Conclusions

The aim of the thesis was to decide how a driver coaching service could be individualised to each driver, and to develop a design proposal for Scania’s service Driver coaching that creates value for both the coaches and the drivers. Insights from the ethnographic findings and the literature review show that a driver coaching service should be individualised by providing different arrangements of the service that fit each driver’s needs and goals. The thesis also provided more knowledge on how to use design ethnography in generative service design processes.

RQ1 – What can design ethnography reveal about the coaches’ role and the performed activities in a driver coaching service?

The ethnographic study provided rich data about the coaches’ background, their thoughts and opinions about the service as well as how they are approaching different drivers. There were also eleven pain points identified as well as the activities the coaches perform. It was found that coaching in a driver coaching service should consist of four parts. The first part is small talk that builds trust between the coach and the driver. The other three parts are follow-up, discuss current grades and discuss future goals which is supported in theory as well. All this important information was the key to develop a design proposal that could create more value for the coaches.

Furthermore, the data from the ethnographic study made it possible to make a detailed customer journey that shows all identified touchpoints and performed activities. Since interviews were performed directly after the observations, the researchers were able to question the identified coach activities to fully understand the motivation and purpose of each activity.

RQ2 – What factors are important when individualising a driver coaching service?

There are a couple of factors that were discovered to be important when individualising a driver coaching service. An individualised driver coaching service should:

- Enable individualised arrangements of the service.
- Have a driver profile for each driver with information about personal arrangement of the service.
- Enable choice of how frequently each driver should be coached.
- Enable choice of channels in which to coach each driver.
- Enable setting personal, specific goals for each driver.
- Support the coach in choosing how to approach each driver.
- Support the coach by having a tool that suggests in which order to coach the drivers.
- Provide the coach with working tools and important data.
- Consist of feed up, feedback, feed forward and small talk.
- Facilitate communication between the coach and the driver.
- Automate reports to reduce coach workload.

RQ3 – What lessons can be learned by doing generative design work based on ethnographic data?

There are no established guidelines for how to practically apply design ethnography in service design processes. This thesis had a research phase that was performed with methods from design ethnography and two generative phases, analysis and ideation, which combined the findings from the ethnographic study with methods from service design. There are some lessons that can be learned from doing a project with this kind of set-up and they are:
• Ethnographic data have to be reduced to be able to visualise the findings in a way so that all stakeholders in the service can get a consolidated view of the users’ work.
• Service design visualisations can help the ethnographic researcher to find more insights and speed up the analysis of the data.
• Service design visualisations can be more detailed and authentic when based on ethnographic data.
• Pain points that come from ethnographic data are identified based on what the researcher experiences, not by co-creation and discussion with the user.
• Ethnographic data provides the designer with compassion and understanding for the user which help to generate ideas that are customised for the observed users.
• Ethnographic data gathered from a few users cannot ensure a solution that fits all users, as well as all stakeholders, in the service.
• The researcher who is out in the field becomes a valuable information source.

7.1 Future Studies

There is no confirmation that the design proposal would suit other coaches’ way of working or other markets. Therefore, it would be good to evaluate the design proposal and customer journey with more coaches. The researchers suggest that a quantitative study should be conducted to evaluate the results. The study could be done by collecting more data, from several coaches, through questionnaires that can provide a more statistically proven result. The overall question for that study could be “What is best practice when finding out how a front-end employee performs the job and how the employee perceives the service?”. It would be interesting to find out whether a qualitative or a quantitative study is the best practice and how the different types of studies affect the results.

This thesis presented a large set of insights about the coaches and to try to solve all identified pain points, the design proposal should be explored further by future studies. Furthermore, the needs from the drivers in Hantosi Albertsson’s (In press) study should also be applied when developing the service to really provide a service that benefits all actors. It would be interesting to find out, by doing evaluating workshops, whether the design proposal fits the drivers as well. There should also be more focus on the financial part of the service since no investigations were made to see how much an individualised driver coaching service would cost, both for the service provider and the customer.

For future studies, the researchers suggest that the use of a customer journey for analysis of ethnographic data should be applied to several different cases to investigate the quality of the method and to see if other researchers could benefit from it. If so, this might be a way to make the analysis phase in an ethnographic study more rapid. It would also be interesting to find out what other types of service design visualisation methods that could be used for analysis and what adjustments have to be made to not lose too much valuable data.
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Appendices

Appendix A: Interview Guide – Drivers

Intervjuguide
Driver
**Intro**

1. Hur länge har du arbetat som lastbilschaufför?
2. Vad kör du för typ av sträckor/transporter? Long haulage osv
3. Använder du FMA?
   a. Vad använder du appen till?
4. Har du gått Driver training?
5. Vad motiverar dig att bli en bättre förare?
6. Hur länge har du blivit coachad?
   a. Har du alltid haft samma coach?
7. Vad tycker du om att bli coachad?
8. Hur ofta brukar du bli coachad?
   a. Hur ofta skulle du vilja bli coachad?

**Innan samtal**

9. Hur planerar du och din coach när samtal ska ske?
10. Brukar du kolla på coachingrapporten innan samtalet med coachen?
11. Brukar du kolla in dina betyg?
    a. Hur känns det att få betyg på din körning?
    b. Tycker du de känns sanningsenliga?

**Under samtal**

12. Var brukar du befinner dig när coachingsamtalet sker?
13. Vad tycker du om att bli coachad genom telefon?
    a. Hade du kunnat tänka dig något annat sätt?
14. Hur skulle coachen kunna hjälpa dig i att uppfylla dina mål?

**Efter samtal**

15. Hur arbetar du med feedbacken efter samtalet för att fortsätta vara bra/bli bättre?
16. Vad tyckte du om samtalet du hade med din coach nu senast?
**Introduktion**

Vi är studenter från Linköpings Universitet och skriver examensarbete på Scania i Södertälje. Där tittar vi på tjansten Driver coaching och det är här du kommer in. Vi ska kolla på interaktionen mellan coacher och förare för att kartlägga hur det fungerar idag. Denna för att vi ska få bättre information och hjälp med hur vi kan arbeta och för att Scania ska förstå ett arbete bättre.

Det är därför vi kommer att vilja observera flertalet coachingdelfallen, både som du utför men även några som sker i andra delar av Norden för att få ett brett perspektiv och se hur olika coacher gör därför det finns tydliga indikationer på att alla gör olika. Inget sätt är fel att arbeta på och vi som examensarbetare är inte färdige gällande hur samtalen ska göras utan lär oss av er.

Vi kommer både titta på hur du förbereder innan ett samtal, vad som sker under samtalset och även efteråt för att få ett helhetsperspektiv på coachingsessionen som vi kallar det. Efter vi har observerat så kommer vi att ställa lite följfrågor och några mer djupgående frågor för att verklig förstå det vi har observerat och få insikt i ett arbete och om du själv har idéer.

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**Att tänka på vid observation**

**Innan samtal**
- Vad innebär det att förbereda sig för ett samtal?
  - Ex. verktyg, information, strategier, mentalt, miljö
- Verkar något ta tid och vilka element är problematiska?

**Under samtal**
- Vad innebär det att utföra ett coachingsamtal?
  - Ex. verktyg, inledning, kommunikationselement, feedback, motivation, avslut
  - Verkar något ta tid och vilka element är problematiska?

**Efter samtal**
- Vad innebär efterarbetet för coachen?
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Intro
Vi är väljant intresserade av din bakgrund och vad coachrollen innebar så vi tänkte börja med några introduktionsfrågor.

1. När började du arbeta som coach?
   a. Har du någon tidigare erfarenhet av lastbilserket?
2. Har du några andra arbetsuppgifter utöver coaching?
   a. Hur stor del av din tid går åt till coaching?
3. Har du gått någon utbildning i coaching?
   a. Om nej, har du fått möjligheten att göra det?
   b. Om ja, har du på något sätt anpassat den metoden du lärde dig för att den ska passa din marknad och hur i så fall?
4. Vad känner du att du behöver för att kunna göra ett bra jobb som coach?
   a. Finns det något du vill att Scania ska hjälpa till med?
5. Vad är det som motiverar dig i ditt arbete som coach?
6. Vad är det som är mindre bra med att vara coach?
   a. Vi har fått indikationer om att coaching är tidskrävande. Vad anser du om detta?
      i. Vad är det som tar mest tid?
      ii. Varför tar det tid?

Coach

7. Hur många förare har du hand om?
8. Hur ofta sker samtal med förare?
   a. Hur ofta känner du att det skulle vara bra att coacha?
9. Idag sker coaching genom telefonsamtal, vad anser du om detta?
10. Hur individuellt passar du din coaching idag till varje förare?
    a. Gör du detta för att Scania har sagt att du ska göra det eller för att du själv har märkt ett behov av det?
    b. Vet du vad dina förare motiveras av?
    c. Har du koll på vilken approach du ska ha till varje förare?
    d. Hur håller du reda på alla dina förare?

Innan samtal

11. Hur planerar du när samtal ska ske till varje förare?
12. Vad har du för förberedelser innan ett samtal?
13. Vad skickar du med i coaching rapporten?
14. Vi har hört att många marknader samlar information om förare i bland annat Excel.
    Vilka verktyg använder du för att förbereda ett samtal?
15. Vad händer om du inte får tag i en förare?
16. Vad skulle underlätta din planering och förberedelse innan ett samtal?
Under samtal

18. Vad är din uppfattning av förarens intresse för coaching?
   a. Hur motiverar du en förare som har mindre eller inget intresse för coaching?
   b. Vad är dina tankar om kopplingen mellan förarens intresse för coaching och förarens betyg?
   c. Vad är skillnaden mellan att ringa ett samtal till en förare som är motiverad jämfört med en som inte är motiverad?
19. Finns det någon information du lyssnar efter som du noterar under samtalen?
   a. Var/hur noterar du detta?
20. Vad skulle underfatta ditt arbete när det kommer till kommunikationen med föraren?
   a. Saknas det något i de tillgängliga verktygen idag?
      i. Varför behöver du det?

Efter samtal

21. Vad är din uppgift efter att du har avslutat ett samtal?
22. Vad tyckte du om samtalen du hade idag? Några utmärkande detaljer?

Avslut

23. Har du något att tillägga som du känner att vi har missat?
24. Är det okej om vi hör av oss till dig i efterhand om det dyker upp kompletterande frågor?
### Appendix D: Design with Intent Toolkit – Target Behaviours

**User–system interaction: influencing interactions between a user and the system**

<table>
<thead>
<tr>
<th>Target behaviour</th>
<th>Example</th>
<th>Some relevant patterns</th>
</tr>
</thead>
<tbody>
<tr>
<td>51. The user follows a process or path, doing things in a sequence chosen by the designer</td>
<td>Customer places order via website without missing out any steps</td>
<td>Messages, Pausing, Interrupt, Tunnelling &amp; wizards, implied sequences, Sizing suggestions</td>
</tr>
<tr>
<td>52. The user follows a process or path that’s optimized for those particular circumstances</td>
<td>User only spends as much time as really needed in the shower</td>
<td>Conditional warnings, Did you mean?, Are you sure?, Task-irrelevant, Tailoring, Possibility, trees</td>
</tr>
<tr>
<td>53. Decision among alternatives: a user’s choice is guided</td>
<td>Diners choose healthier meal in office canteen</td>
<td>Defaults, Options, Kerbs, Simulation &amp; feedback, Colour associations, Prominence, Frequency, Proximity &amp; grouping, Simplicity, Decays, Do as you’re told, Expert choices, Framing, Scarcity, Anchoring, Forced dichotomy</td>
</tr>
<tr>
<td>54. Only certain users/groups of users can use something</td>
<td>Only users who know PIN can access bank account via ATM</td>
<td>Encourage atmosphere, Who or what you are, Whatever you have, Whatever you have, Whatever you have</td>
</tr>
<tr>
<td>55. Only users already behaving in a certain way get to use something</td>
<td>If a driver’s travelling below the speed limit, the next set of traffic lights turn green, otherwise they stay red</td>
<td>Degrading performance, Threat of injury, Threat to property, What you can do, What you’ve done</td>
</tr>
<tr>
<td>56. No users can use something in a particular way, regardless of who they are or what they’ve done before</td>
<td>Park bench fitted with central armrest to prevent anyone lying down</td>
<td>Accumulation, Hiding ways, Choice editing, Matched affordances, Cognitive atmospheres</td>
</tr>
<tr>
<td>57. Users only get functionality when environmental criteria are satisfied</td>
<td>Office lighting cannot be switched on if ambient daylight adequate</td>
<td>Instructions, Where you are, Where you are, Where you are</td>
</tr>
</tbody>
</table>

**User–user interaction: influencing interaction between users and other users, mediated by the system**

<table>
<thead>
<tr>
<th>Target behaviour</th>
<th>Example</th>
<th>Some relevant patterns</th>
</tr>
</thead>
<tbody>
<tr>
<td>61. Multiple users are least separate so they don’t affect each other while using a system</td>
<td>Traffic follows one-way system into/out of car park</td>
<td>Material properties, Converging &amp; diverging</td>
</tr>
<tr>
<td>62. Users (and groups of users) do interact with, and affect each other while using a system</td>
<td>Staff from different departments mix socially in a building’s strucre</td>
<td>Converging &amp; diverging, Make it a menu, Provoke empathy, Recipitation, Social proof, Peer pressure</td>
</tr>
<tr>
<td>63. Users can’t block or dominate a system to the exclusion of others</td>
<td>Wide pedestrian concourses prevent groups blocking passage for others</td>
<td>Segregation &amp; spacing, Peer feedback</td>
</tr>
<tr>
<td>64. Controlled rate of flow or passage of users</td>
<td>Visitors to popular museum exhibit routed past slowly on moving walkway</td>
<td>Conveyor belts, Roodstock, Slow/no response</td>
</tr>
</tbody>
</table>
Appendix E: Pain Points with Chosen Target Behaviours

Individualisation
- The service does not support individualised processes
  - S2, S3, U1, U3
- The coaching tool does not support the coaching process
  - S1, S3, U3
- The coaches struggle to find the right approach for each driver
  - S1, S2, S3, U3

Trust
- Drivers want the coaches to reveal co-workers’ grades
  - S4, S5, S6, S7, U1
- The coaches struggle to gain and remain trust from the drivers
  - U2, U1
- Drivers do not understand or trust the grading system
  - S5
- The coaches cannot store information about drivers and the calls
  - U1, U3

Communication
- The coaches lack support from Scania
  - U4
- Time is spent on preparing reports and calls that are neither read nor answered
  - S3, U3, U4
- The coaches cannot share detailed tips and comments with the drivers, except in the calls
  - S2, S4, S5
- Important information is spread out in different tools
  - S1