Going to school:

A valuable or stressful journey?

A study on the parents' practice of bringing their child to school in combination with the initiative of Lekker Anders Dag

MASTER THESIS

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'A study on the parents' practice of bringing their child to school in combination with the initiative of Lekker Anders Dag'

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Preface

Dear reader,

In front you I present my thesis: "Going to school: a valuable or stressful journey?"

After graduating the Master program of Spatial Planning at the Radboud University in 2018, I decided, instead of finding an appropriate job, to study further for a new academic adventure in the field of Human Geography. By making the choice to further educate myself in order to obtain new academic knowledge, I consider to be of greater value for different organizations, having broader opportunities in finding a fitting job, and above all to develop myself further on a personal level. Although I have written a thesis two times before (one in order to receive my Bachelor of Geography, Planning and Environment and one during the Master's program of Spatial Planning), the process of this thesis has certainly not been easier. However, after almost two years, I can conclude that these extra two years of study brought me a lot. Conducting and writing the master thesis have been intensive, eye-opening and certainly very worthwhile. Having the opportunity to write a master thesis in combination with an internship and traineeship at the consultancy of UBACHS/full contact in Nijmegen was very challenging and instructive. Through all the work experience I have gained at UBACHS/full contact, I have grown as a person and I have been able to further develop myself for my professional career. Due to the willingness of all the people involved, I was able to achieve my objective. I would like to express my gratitude to all the people involved in completing my master thesis.

First of all, I am very grateful for my supervisor Rianne van Melik who provided me useful feedback and with whom I had pleasant and interesting conversations. Despite my working time at UBACHS, she was always available to me when I had questions about my research process. Furthermore, I would like to thank Paul Ubachs for the pleasant guiding, the great expertise on the topic of school journeys, the meaningful introduction to the initiative and, above all, the chances you gave me related to the work experiences in practice. I was honoured to have the opportunity to write the thesis at UBACHS/full contact, while all colleagues were often there for me when I needed them. In addition, I would like to mention all respondents in particular, because without them this research could never have been conducted in this form. Last but not least, I would like to say thanks to my friends, family and girlfriend who have always supported me throughout the process.

For now, I really hope you do enjoy reading my thesis.

October 2020, Nijmegen/Lichtenvoorde

Myron Kruip

Summary

Bringing your child to school is for every parent an important common activity in relation to home-school mobility. This parent's practice about the journey from home to school can be conducted in many diverse ways. While scientific data support this statement (e.g Timperio et al. 2006; Faulkner et al., 2010; Giles-Corti et al., 2010), the general perception, within the popular media, claims that there the journey to school is associated with a lot of unsafe situations and irritation and annoyance among parents within the school environment. The home-school traffic flow is often done by car and less use is made of other modes, such as walking, cycling and public transport (e.g. Faulkner et al., 2010; Fyhri et al, 2011; Van de Craats, 2019). This entire development ensures that today's children can be seen as the "backseat generation" (Karsten, 2005). Parents and children are literally and figuratively in the middle of the large crowds that often arise in the public space around the schools during the morning. Because the large amount of traffic and people, chaotic situations often occur around schools.

Due to these worrying developments, the initiative of "Lekker Anders Dag" (LAD) was set up through a collaboration between participating municipalities, schools, parents and the consultancy firm UBACHS/full contact (the internship organisation). LAD addresses the topic of crowded traffic situations around schools by stimulating parents to think about going to school in a different way on days when it suits them. The underlying idea is simple: going to school with your child is a special journey. LAD tries to give a positive twist by emphasizing the fun of the journey to school. Namely by challenging parents and children to do it differently (*"lekker anders"*) from time to time.

The journey to school for parents with their children is certainly not only a displacement in space, but that there is much more to it. This entire process of this practice starts at home behind the front door and ends in the immediate school environment, where influences and experiences play an important role in choices made by parents. This research aimed at decreasing the backlog in scientific knowledge regarding the parents' practice of bringing their child to school by trying to find an answer to the following main question: *In what ways is the parents' practice of bringing their child to school influenced and experienced?*

In order to answer this question, data was gathered by conducting participatory research. The fieldwork was divided into three parts: (1) observations at walk/ride alongs and LAD-activities at several schools, (2) interviews with municipal traffic experts, parents and the LAD-creator (3) conducting a survey with 387 respondents. Ultimately, this resulted in the first part in field notes documenting the observations of journeys to school accompanying two different families (walk/ride alongs) plus LAD activities (the kick-off) at four participating schools in the municipality of 's-

Hertogenbosch. Subsequently in the second part a total amount of six in-depth interviews with three traffic experts, three parents and the LAD-creator Paul Ubachs. Then, in the third part, the receipt of 387 completed respondents' questionnaires from the deployed digital survey. The data that was gathered with these parts was used to analyse the studied parents' practice from multiple perspectives.

For the analysis of the results, use was made of the Social Practice Theory, in which the SPT-model of Shove et al. (2012), with the competences of *meaning, material* and *competences,* was used to obtain social and practical insights. Zooming in on the journey to school, it is noticeable that this activity is to divide into three stages: the preparation at home, the journey itself and the arrival in the school environment. It can be concluded that per section other components are more important for parents and that is a constant interplay of these three components. Furthermore, it can be stated that within the school environment more attention is paid to the social aspect of people's behaviour. Where previously the focus was constantly on physical measures related to (experienced by parents), school environments are often already physically optimized. People's behaviour appears to play a more important role in the development of a safer and more joyful school environment. The initiative of LAD contributes somewhat to the *meaning* of the journey to school that everyone can enjoy. Going to school in a different way sometimes generally brings new dynamism to families from the intrinsic motivation of parents and children. However, for parents, the *material* physical aspect (as a 'starting point') of the school environment and the route along the way must be in order if school journeys that are carried out in a different way are to be considered.

Next to practical implications, this research also led to some recommendations for further research. One could especially think of conducting a similar research with this parents' practice during the afternoon when children are picked up at school. Furthermore, it could be useful to investigate the role of the school within this practice, in addition to the municipality and parents, as this is an important party that is also frequently mentioned by the respondents in this research. In addition, future research could also consist of a qualitative method that will investigate the long-term effects of LAD in a few years' time, including the 'sustainability' of such an initiative where influencing behaviour in the form of social nudging can play such a major role.

Key words: home-school journey, school environment, Social Practice Theory, parents' practice, Lekker Anders Dag, behavioural influence

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Chapter 1 – Introducing the topic

"People have a strong tendency to go along with the status quo or default option." (quote of Richard H. Thaler and Cass R. Sunstein, qtd. in Nudge: Improving Decisions About Health, Wealth, and Happiness (2008), p. 101)

1.1 Introduction

Waking up in the morning is often the most hectic moment of the day in many families' homes. The alarm goes off, getting out of bed, washing, getting dressed, having breakfast and getting ready for school. All activities that have to be done within time, because the most important thing for parents is yet to come: bringing their child to school on time. Although this daily ritual is seen by many parents as a regular and necessary activity, it can also be a very valuable activity that benefits both the parent and the child. This recurring practice can certainly be seen by parents as a whole process. A process that is also shaped and caused by various aspects. The practice of how children are brought to school by their parents has several reasons, creates certain patterns and results in various consequences. Within the discipline of geography there has been considerable debate about the reasons, patterns and consequences of human behaviour (Reid & Ellsworth-Krebs, 2018). Human behaviour can be related to any kind of action or practice. This also applies to the parent's practice of bringing their child to school described above.

Since the end of the last century, a new interest in children's lives has been reflected in geography (Matthews, 2003). During the past decades, the journey to school for children has undergone significant change (McMillan, 2005). There is clear evidence in developed countries of an increasing trend for children to be driven to and from school in private motor vehicles, at the expense of other means of transport (Pooley et al., 2005). The home-school traffic flow is often done by car and less use is made of other modes, such as walking, cycling and public transport (e.g. Faulkner et al., 2010; Fyhri et al, 2011; Van de Craats, 2019). The private vehicle has become the predominant mode, even for distances of less than two kilometres (Dellinger and Staunton, 2002), while walking and cycling to school have decreased within this context of distance (Martin & Carlson, 2005; McMillan, 2005). This entire development ensures that today's children can be seen as the "backseat generation" (Karsten, 2005). These children tend to 'experience' their neighbourhoods through the windows of their parents' cars and acquire less spatial knowledge of their home-school environment (Carver, Timperio & Crawford, 2013, p. 72). However, replacing short car journeys with active and joint transport to school would reduce unfavourable environmental issues around schools such as traffic hour congestion and would contribute to improvements for a number of health and developmental reasons (Maibach, Steg & Anable, 2009; Wilkinson & Marmot, 1998).

Several trends such as increased parent employment and car ownership most likely have contributed to this change in school transport modes (Fyhri et al., 2011). The Dutch travel safety organization *Veilig Verkeer Nederland* (VVN) also states that too many parents bring their children to school by car, resulting in an increasing number of cars around schools causing often chaotic traffic situations within the school environment (NOS, 2015; 2018). Fyhri et al., (2011) conclude that this described development has consequences for the increase of the shared feeling of unsafety in the school environment among parents and children. According to VVN (2014), the fact that parents are reacting to safety (perception) concerns by driving their children to school is a part of a vicious circle. As more parents drive their children to school, there will be an increase in cars, which results in a more crowded area and probably therefore an increasing perception of the school environment being unsafe and because of this increasing feeling of unsafety, even more parents are taking the car (Van de Craats, 2019). The parental concern has been found to be very influential on whether or not children participate, with their parents, in active travel (Kerr et al., 2006; Timperio et al., 2006).

In this research, the focus is on the parents' practice of bringing their child to school. By gaining in-depth insights into behavioural choices within this daily activity, the results of this research can contribute to the relationship between parents' travel behavioural choices and the development of pleasant traffic in the school environment. The home-school traffic flow is a very important recurring event for schools, municipalities and traffic authorities. Eventually, this research could help in compiling and sharpening existing activities, approaches and policies of governmental institutions and social organizations in certain ways related to this subject of (in)dependent mobility of children and parents within home-school traffic.

1.2 Reason for this research: "Lekker Anders Dag"

As described above, the relation between behaviour and the use of the Dutch school environment as a public space is central to this research. Parents and children are literally and figuratively in the middle of the large crowds that often arise in the public space around the schools during the morning. Because the large amount of traffic and people, chaotic situations often occur around schools. According to several studies (Faulkner et al., 2010; Timperio et al, 2006; Westman, Friman & Olsson, 2017), children are more often brought to school by car nowadays. However, the parents' practice of bringing their child to school could also be done in other ways. This statement is related to the general main focus of this research: the initiative of "Lekker Anders Dag" (loosely translated: Doing Differently Day), developed by consultancy company UBACHS/full contact.

Initiated in 2018, Lekker Anders Dag (from now on: LAD) addresses the topic of crowded traffic situations around schools by stimulating parents to think about going to school in a different way on

days when it suits them. The underlying idea is simple: going to school with your child is a special journey. How can it be ensured that this journey remains special? Because honestly: it is often a hassle at home and around school, with crowds, cars, haste and a lot of irritation among parents. This daily ritual can be performed differently. Quality time between parents and their children is hereby the most important aspect. LAD tries to give a positive twist by emphasizing the fun of the journey to school. Namely by challenging parents and children to do it differently (*"lekker anders"*) from time to time. Parents should not always bring their children quickly or just let them go alone to school, but they can make something fun out of it. By simply giving it their own twist on some days, when it suits them the best. Parents and children are free to fill this in according to their own wishes. For example, they can walk or cycle but they can also play games on the way to school or visit the playground in the morning.

To break this pattern, LAD tries to make the journey to school more special and fun. With a LAD box with diverse gadgets such as a calendar, a hat and a flag, the journey to school can (visibly) get a different experience. Therefore, it is important that parents and children have to perceive the home-school mobility in a more convenient way and have to be 'invited' to the school environment for having social contact and activities. As a result, the assumption is that this process will lead to a development in which there is less irritation and less traffic because parents and children go to school together with a different experience and enjoyment.

1.2.1 Internship and traineeship period

The consultancy company UBACHS/full contact facilitated my internship period for four months. After this internship, I was given the opportunity to follow a 7-month traineeship during which I would get even more chances to contribute to projects of LAD. Although LAD had already started, there were certainly plans to extend the initiative. Besides studying I was able to gain a lot of practical experience at the same time.

The LAD initiative started in 2018 with a pilot version in the Dutch municipalities of Cuijk and Wijchen in the province of Gelderland. These municipalities asked UBACHS/full contact to think about a new approach to contribute on less crowded school environments. In conversation with parents, school leaders, teachers and the municipality, UBACHS/full contact soon discovered that we hold the key to ourselves for the most part. Not only the physical design of the school environment is important, but also the social aspect of the relevant users. The initiative believes that this can be achieved by changing the behaviour of parents (and children) through the social process of mentality change. According to Paul Ubachs, creator of LAD, it is crucial that desired behaviour will be promoted. Therefore, undesired behaviour should not be suppressed and the alternative must be feasible for people. Responding to a change in mentality, behaviour change can be realized through this way only. Because a new shared mentality leads to other (desirable) choices and subsequently to a change in

displayed behaviour. After a successful implementation at several schools and the various positive responses from parents and teachers in Cuijk and Wijchen, LAD has been implemented within the municipality of 's-Hertogenbosch. Later in this study is explained how these municipalities have been used for being part of the research fieldwork in this study.

1.3 Research objective

So it is clear that the parents' practice of bringing their child to school is a very important issue at the societal level for parents and children. To increase understanding of how this parents' practice plays out at the family level, there can be a contribution to societal and theoretical debates on the journey to school. This study is fundamentally practical-driven, yet also may have some theoretical implications. More specifically, I aim to develop societal insights and practical recommendations to decision-making processes for parents and children in their home-school mobility. In addition, these insights and recommendations can also be used to develop the (behavioural) policy framework for creating improved experienced school environments.

1.4 Research question

The aim of this research is attempted to achieve by the following main research question:

In what ways is the parents' practice of bringing their child to school influenced and experienced?

In order to answer this question, the following sub-questions have been developed:

- Which components of the SPT-model (meaning, material, competence) are most relevant to parents during their journey to school?

- To what extent does behavioural policy contribute to (the development of) the school environment?

- To what extent does LAD affect the home-school mobility of parents and children?

The above sub-questions are used to support the empirical chapters in this research. It is important to clarify that this study focuses on home-school mobility in the morning, or the 'morning commute'. The studied parents' practice and the journey to school therefore also take place in the morning. The main question and sub-questions should therefore be seen in this perspective.

The SPT model (*Social Practice Theory*) that is mentioned in the first sub-question will be carefully explained in chapter 2, where it will become clear what the components *meaning, material* and *competence* entail and why they can be used well in the investigation of the school journey.

The second sub-question about behavioural policy is also about how people can be socially nudged in a certain way in the school environment instead of normal physical nudging. In this study, the school environment refers to the direct public space adjacent to the school (including surrounding streets, car parking area and bicycle storage) in the neighbourhood or district. It is the space where all parents and children, and therefore all associated diverse traffic flows, come together at school, as the end point of the home-school mobility.

As discussed, LAD also plays a major role in this research. The third sub-question therefore examines the extent to which this initiative has social influence(s) on the travel behaviour of parents and children related to their journey to school.

1.5 Research relevance

1.5.1 Scientific relevance

The use of the home-school mobility is a very important activity within the school environment. Francis (1988, p. 57) stated that "*truly public spaces fill the needs of many different kinds of people, provide opportunities for discovery and challenge, and actively encourage user manipulation, appropriation and transformation*". In the past decades, based on research and design advances from Carr, Gehl, Whyte and others, good use of public space can be stimulated (Francis, 1988). For example, Whyte (1980) points out that different public space guidelines for the use of public space are needed. Subsequently, in the book *Cities for people*, Gehl (2013) is designing the public space on a human scale as an important starting point to let people create certain use, movements and behaviour. A helpful instrument to influence people's behaviour in public space is nudging. In short, nudging can be defined as a little push in the right direction (Thaler & Sunstein, 2008). Nudges are small interventions in complex choice-making situations that defeat cognitive errors and highlight the best choices for individuals without forbidding any options (Avineri, 2011; Lehner et al., 2016). Therefore, nudges do not force people to make a particular choice but tempt people to show a different attitude and behaviour (Hansen & Jespersen, 2013). A growing number of researchers, scientists, urban planners and geographers see nudging as an interesting management tool that governments and non-governmental parties could use in an approachable way to influence desirable behaviour of people (Bekkers et al., 2015; Van Deun et al., 2018). The school environment can be seen as a form of public space where people (parents and children) create certain use, make movements and show (un)desired behaviour. Therefore, nudging could be a useful tool to stimulate the desired behaviour in the school environment.

Next to the travel behaviour choices of parents towards school, the relation between children and school is a subject that has been researched thoroughly. Diverse researchers who have delved into

this relation in the past decades are (amongst others) Matthews (2003), McMillan (2005) and McDonald & Aalborg (2009) related to child age geography, the influence of urban form on the child's travel to school and the underlying reasons why parents drive children to school in combination with safe routes. These diverse research topics are all related to the parents' practice of bringing their child to school. However, these studies are mainly based on traffic safety around the school and no resolving (behavioural changing) initiatives have been proposed. Compared to the studies of school travel patterns of parents and children, ''the activity-travel field is in its infancy in its understanding of children-adult activity-travel and decision-making interactions'' (Paleti et al. 2011, p. 277). Therefore, broader research is needed for a better understanding of how to complete the joint journey from parents and children between home and school (He & Giuliano, 2015). Home-school mobility is a highly valued issue among scientists and policymakers worldwide. There is clear evidence in developed countries of an increasing trend for children to be driven to school at the expense of other modes, such as walking, cycling and public transport (Pooley et al., 2005). In the last years, the 'school run', how the school journey is better known internationally, is indicative of a potential 'problem space' identified by transport policy because of the increasing numbers of children being driven to school (Greed, 2008 in Jain, Line & Lyons, 2011). In a certain way, the school run exemplifies the tension between social context and making sustainable choices (Jain, Line & Lyons, 2011). A strong parental influence on the final transport mode choice to school for children up to a certain age has always been reported previously (Carver et al., 2013; Johansson, 2006; McDonald & Aalborg, 2009). The notion of all these developments and processes within the school environment is recognized by several researchers with comparable studies (e.g. Giles-Corti et al., 2010; He & Giuliano, 2015; McMillan, 2007).

The majority of these mentioned existing investigations have taken place in the Unites States and Australia. However, these countries generally do not have the landscape layout that European countries, such as The Netherlands, have in terms of a network that is based on short distances (between home and school) with the associated infrastructure and density. There is a lack in exploring the journey to school as a practice. Using a practice approach will examine this school run from a different perspective and bring up new insights. Research is needed to clarify the parents' behavioural choices in their journey to school in which way the practice of bringing their child to school is carried out by them. Especially in The Netherlands, relatively little is known about this practice related to behavioural influence within the school environment. Therefore, this research digs into this practice and how this is influenced, shaped and experienced by parents, which help reduce our backlog in knowledge regarding this topic.

1.5.2 Societal relevance

Next to a scientific relevance, this research also covers a societal relevance. Research on this topic from the perspective of urban geography is especially relevant due to the spatial and social impacts that the parents' practice of bringing their child to school entails. In the social field, the way in which this home-school traffic process takes place is of vital importance for parents on the one hand and children on the other. First of all, due to the combined influx of increasing large crowds of parents and children and the presence of cars, public space around schools is under pressure several times a day (De Gelderlander, 2018). Additionally, around 90% of schools in the Netherlands experience unsafe traffic situations in the immediate vicinity (RTL Nieuws, 2018). From a report by VVN, 58% of the questioned schools claim that these unsafe traffic situations take place as a result of the bringing of children by car (NOS, 2015). This high percentage indicates that this makes the journey to school a lot more unpleasant for parents. The practice of bringing your child to school is an important activity that every parent has to deal with over the years (Timperio et al., 2006; Ross, 2007). Although bringing your child to school is seen by parents as more of a necessary activity, parents do enjoy the time they can spend together with their child during the school journey (i.e. Carver et al., 2013; He & Giuliano, 2015; Westman et al., 2017). Although there has been much emphasis in recent years on implementing physical measures (Woolner et al., 2007; Kann et al, 2015), this may not be the future solution for less traffic around schools. However, it is reality for parents that the journey to school is a part of their daily routine; an important practice that starts off every day. Hence, this topic plays a part in many parents' lives and should, therefore, be paid attention to.

Furthermore, as mentioned earlier, the journey to school for children has undergone significant change during the past several years (McMillan, 2005). The proportion of children actively commuting to school has decreased in many countries (e.g. Martin & Carlson, 2005; Timperio et al., 2006). This trend also applies to the Netherlands, where almost a third of children are driven to school by car (NOS, 2013; AD, 2014) as a result of increasing safety concerns that parents have (VVN, 2014). The increase in car use and unsafe situations contradicts the fact that the Netherlands has a bicycle culture in combination with a land-use pattern that is organized accordingly (Van Goeverden & De Boer, 2013). Furthermore, according to VVN cycling is part of the growing-up process of Dutch children (NOS, 2018). Vos (2018) states that school children perform poorer than ten years ago in physical mobility. Also other newspapers write about similar issues concerning school children more recently (AD, 2020; Telegraaf, 2018).

Personal, family, social, and physical environment factors seem to influence travel behaviour of parents during their journey to school (Timperio et al., 2006; Van de Craats, 2019; Westman et al., 2016). This influence is certainly related to the concerns and decisions of parents. As Timperio et al. (2006, p. 46) described: "However, the influences on children's mode of travel to school are likely to

be broader, also encompassing the social and physical environment". As Xu (2017) confirms, the practice of how children are brought to school has become a hotly debated academic, public and policy issue surrounding childhood health, mobility, community and environmental sustainability. Additionally, gaining insight into the process of the parent's practice of bringing their child to school is advantageous for shaping and creating certain policies and rules for parents and children concerning this practice by municipalities and schools. Developed policy could be substantively clearer about the physical design of the school environment with more attention for cyclists and pedestrians and less emphasis on cars. Agreed social rules can be about stimulating and 'normalizing' that journey to school that needs to be carried out jointly and actively by parents and children. The question is whether it can be realized that the home-school mobility could be changed towards a valuable journey for parents and their child with less irritation and traffic during the hectic moment in the morning. The social character of LAD hopes to be able to contribute to this and ultimately to ensure a more pleasant school environment. Therefore, this research has a strong social relevance.

In summary, all of the above makes it clear that this subject of home-school mobility has a very social character. Going to school is an important activity for parents and children, characterized on the one hand by pleasant moments and on the other hand unsafe situations. The question therefore remains how we can see the daily activity of going to school in particular: a valuable or stressful journey?

1.6 Methods

In order to conduct this research, the data was collected by using a mixed-method approach consisting of qualitative and quantitative research. UBACHS/full contact made it possible to create a mixed-method fieldwork process by using participatory research. The data was collected in three different parts. The first part consists out of semi-structured interviews with three municipal traffic experts and three parents. The interviews with the traffic experts helped to get an idea of what kind of space the school environment is and why they embraced the initiative of LAD. Three parents from Cuijk and Wijchen have been interviewed separately in order to elaborate on their experiences and choices in relation to LAD and their practice of bringing their child to school, which helped to see what kind of behaviours and experiences can be found. Another part of data collection entailed observations. During a walk and ride along with two families, it was possible to actively observe and experience the daily journey to school very closely. Other observations were made during several LAD activities at schools in the municipality of Den Bosch that I could contribute by being part of the LAD team. The last part of collecting data was to conduct a digital survey among parents at three schools in Cuijk (N=387) about their perception of the school environment and their experiences and findings about LAD. A

detailed description of the methodology can be found in chapter 3. Figure 1.1 below shows the structure of this research.
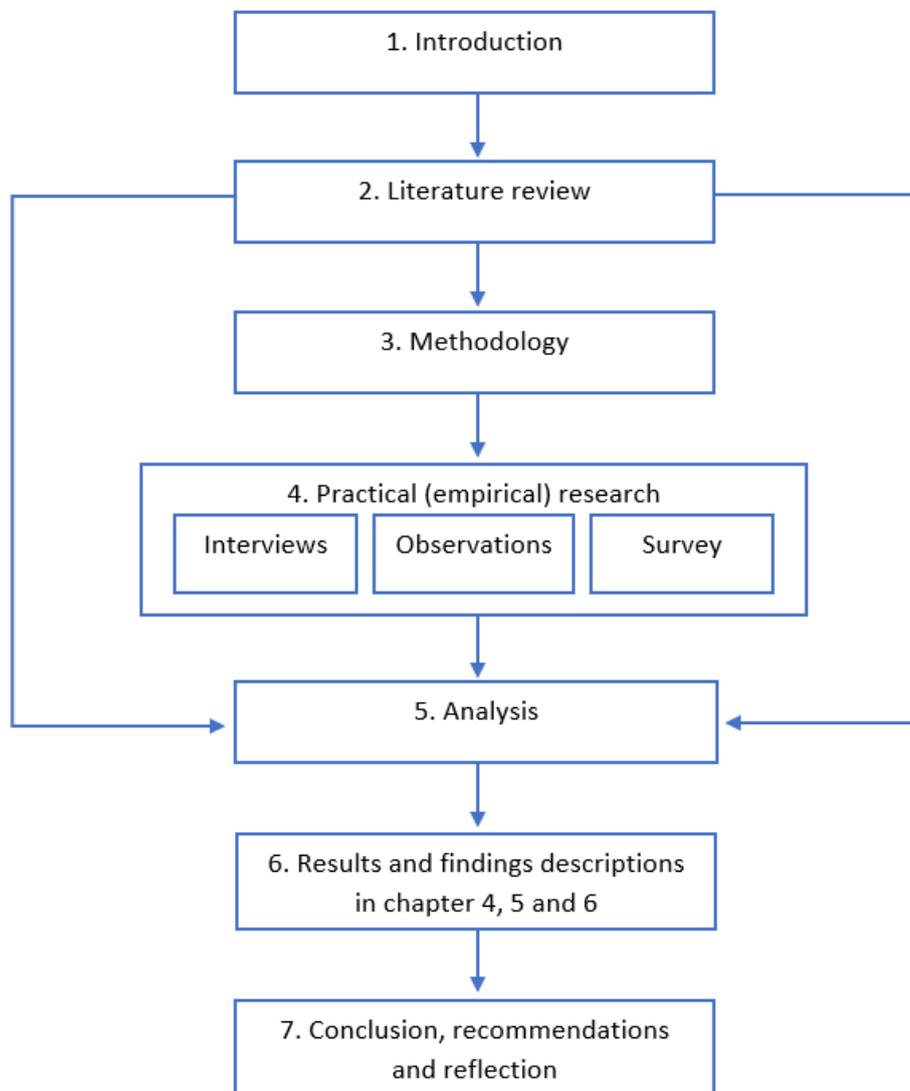
Figure 1.1: Research structure

1.7 Reader's guide

After this introduction of the research, the thesis will start off with the theoretical framework (chapter 2), discussing the existing theories and scientific works that served as the basis for this research. This chapter will contain a literature review that will, in broad lines, elaborate on different factors that could influence the parents' practice of bringing their child to school. Furthermore the Social Practice Theory, that serves as a research tool, will be explained. This theoretical part is also the basis for the conceptual framework. Subsequently, chapter 3 focuses on the methodology used in the research, which describes how the research is set up, which methodological choices have been made and how they have been applied further in the research. Subsequently, chapter 4 will serve as a kind of context

chapter in which the school environment is examined more closely in order to introduce the two empirical chapters that follow. The research continues in the fifth chapter, where the first empirical chapter explains findings about worthwhile experiences of the journey to school in relation to LAD. The second empirical chapter will follow in chapter 6 where research results will be discussed, encompassing the story of the parents' practice of bringing their child to school on the hand of three different stages including the components of the Social Practice Theory. Chapter 7 contains the conclusion and discussion section, including an answer to the research questions, recommendations and a reflection on the research.

Chapter 2 – Theory: a literature review

No proper research can be conducted without taking scientific works and existing theories into account. For this research, there is a large range of discussions and train of thoughts to build upon as travel behaviour within school environments (and subsequently the share of parents' behaviour in this process) is a widely studied subject.

This literature review will discuss those theories that are believed to be most relevant for this research. The first paragraph (2.1) will deal with the Social Practice Theory about how the practice in this research will be studied. Subsequently, paragraph 2.2 will discuss the concept of home-school mobility including theories about routes, routines and the different use within the school environment. The third paragraph of this chapter discusses the concepts of safety and perception in relation to the parents' practice of bringing their child to school. Next, paragraph 2.4 will deal with the topic of personal characteristics related to issues as age, gender and transport options. The, the fifth paragraph examines the way of how this practice can be controlled, by influencing parents' choices: behavioural policy. Lastly, the conceptual framework will be depicted accompanied by a description of the model.

2.1 Social Practice Theory

The Social Practice Theory (SPT) can help to understand all the complex dynamics, choices and circumstances within the parents' practice of bringing their child to school in order to address the mentioned research questions and fill the research gaps. SPT is being developed as an attempt to bridge dialectic approaches in social sciences. Most notably the perceived opposition between thinking about society in terms of grand structures that steer 'the whole' and the opposed view that it would be more useful to think in terms of rational agents whose cumulative choices and actions shape the organisation of social life (Shove et al., 2012, pp. 2-3).

With the research of Reid and Ellsworth-Krebs (2018), there has been tried to unite the disparate perspectives of behavioural science and SPT's. Geographers have increasingly employed SPT to explain how and why particular forms of human activity have been adopted, made popular, persisted and disappeared, reflecting pre-existing post-structuralist approaches (Reid & Ellsworth-Krebs, 2018, p. 6). The idea of practice as an ontological unit of analysis to describe social life has received much attention (Røpke, 2009; Hui et al., 2017). Related SPT's (Bräuchler & Postill, 2010; Shove et al., 2012; Nicolini, 2017) are all united by 'the priority that they have given to practice as a feature of the social'. There is a diversity of understandings of practice, resumed as 'embodied, materially mediated arrays of human activity centrally organized around shared practical understanding' (Schatzki, 2001, p. 13). The expectation of theories of practice is that they have the potential to provide an instrument for explaining processes of change, without risking the pitfall of giving priority to human

agency and choice and for conceptualising stability without treating it as an outcome of an overarching given structure (Shove et al., 2012, p. 4). According to Nicolini (2009) is studying and theorising about practices relevant because of the reciprocal relationship between practices and organisation. In this thinking about the relationship between human agency and social structure, practices are put centre stage instead of seeing practices as "points of passage between human subjects and social structure" (Shove et al., 2012, p. 5). Therefore, theories of practice try to do more than studying human behaviour. In SPT, practices reflect the horizon within which humans coordinate their everyday life, and in turn these practices can shape and change this action-horizon (Nicolini, 2009; Shove et al., 2012). The practices of humans determine human behaviour, and consequently, "if the source of changed behaviour lies in the development of practices, understanding their emergence, persistence and disappearance is of essence" (Shove et al., 2012, p. 2).

Specifically, in this study, the version of Shove et al.'s (2012) Three-Elements Model is selected as specific framework. This model is widely regarded as the most helpful model for application to behaviour change (Spotswood et al., 2015). Shove et al. (2012) are proposing a radically simplified theory of practice. They argue that the linking of these three elements is a useful way to analyse the dynamics of practices. Therefore, "practices are defined by interdependent relations between *materials, competences* and *meanings*" (Shove et al, 2012, p. 24). In their conceptualisation, the element of *meaning* describes the socially shared ideas, concepts and "the social and symbolic significance of participation at any one moment" (Shove et al, 2012, p. 23). *Material* refers to the tangible and material elements, e.g. objects, tools and infrastructures, that make a practice possible for the practice to be performed (Shove et al., 2012; Xu, 2017). *Competence* is defined as embedded skills and practical knowledgeability required to undertake the practice (Shove et al., 2012). Put simply, practices are understood by practice theorists as combinations of observable actions, like sayings and socio-material doings, thus including the use of objects, and the tacit, incorporated knowledge through which observable actions acquire meaning (Nicolini, 2009; Shove et al., 2012; Bueger, 2014)

The Three-Elements Model has often been criticized because of its simplicity in condensing complex theory into a very simple framework (Xu, 2017). As Warde (2005, p. 140) notes, "the principal implication of a theory of practice is that the sources of change behaviour lie in the development of practices themselves". Subsequently, Hargreaves (2011) argues that the terms practice and behaviour are incompatible, and that a continued focus on behaviour serves to obscure more than it reveals. Despite these criticisms, the model still remains a useful and understandable tool for this research. It makes the SPT more accessible to be used in understanding all the dynamics, choices and circumstances for parents during their practice of bringing their child to school. And consequently, our practices determine our behaviour, "if the source of changed behaviour lies in the development of practices, understanding their emergence, persistence and disappearance is of essence" (Shove et al.,

2012, p.2). Therefore, the SPT-model is used to properly visualize home-school mobility and to view it from different perspectives. The following paragraphs will outline the different facets of home-school mobility that will be relevant for this study.

2.2 Home-school mobility: routines and routes

Traveling from home to school is a regular part of daily life for children and parents (Pooley et al., 2010). Going to school is largely determined by the physical environment between home and school (Faulkner et al., 2010; Giles-Corti et al., 2010). This journey is driven by the two major aspects of routes and routines. The period immediately before school starts in the morning emerged as a significant time for children's play and social interactions between parents and children, with established routines and practices apparent (Ross, 2007). As mentioned in the introduction, for many families the daily routine plays a significant role within their decision-making process towards the way of travelling to school. This is often based on issues of time related to the journey between home and school. These issues are inextricably linked to the distance or proximity between these two locations (Faulkner et al., 2010). Choosing the right route largely determines the daily routine of parents and children considering the aspects of time, distance and safety (Faulkner et al., 2010; Larsen, Gilliland & Hess, 2012). Children disrupted the orderliness of their routines by reacting and engaging with their surroundings in a spontaneous way, incorporating play opportunities into their journeys or taking their own routes, short cuts, that often circumvented adult routes and as such were less open to surveillance (Ross, 2007). Finding the best route to school for children within the school environment is quite a difficult task for parents. Often street connectivity is named as an important aspect in relation to choosing the school route (e.g. Sirard & Slater, 2008; Giles-Corti et al., 2010; Larsen, Gilliland, Hess, 2012). However, associations between street connectivity and active travel among children are unclear. More connected street networks have more route options than less connected networks but also have more streets that children must cross as part of their route (Larsen, Gilliland & Hess, 2012, p. 1351). Furthermore, Panter et al. (2010) note that school environments with a high frequency of route choices, low connectivity and quieter streets will not immediately provide an active and joint school journey between parents and children. Additionally, they accentuate that implementations in the environment alone will not be enough, there should also be an increased support from parents (the mentality aspect) towards active and joint travel to and from school. In the end, parents typically described themselves as the ultimate decision makers related to how their children travelled to and from school (Faulkner et al., 2010).

Timperio et al. (2006) also highlighted the need to improve children's traffic skills on their route to school, for instance by teaching them how to safely cross a road and recognize safe routes. Trapp

et al. (2012) propose that increasing route safety and presence of qualitative sidewalks and reducing the crowdedness of cars on the road will likely reduce the (safety) concerns of and parents. In relation to route safety, objective measures of the traffic at school sites have revealed that the risk of danger in traffic is equally high and possibly higher in the direct surroundings of schools (Rothman et al., 2015). This makes the parents' focus on the route rather than the school site itself undesirable. As a daily routine, we are moving around in traffic while we are all guided by a set of strategies and beliefs, many of which we may not even recognize as we act upon them (Vanderbilt, 2007, p. 35). In many daily routines, parents are combining the child's school journey with travelling to work using the car for instance (Faulkner et al., 2010; Larsen, Gilliland & Hess, 2012). Changing this routine by taking another travel mode is often a tough task. This relates to in what psychologist Daniel Kahnemann has called the 'endowment affect', once people have been given something, they are instantly more hesitant to give it up or to change it (Vanderbilt, 2007, p. 44). Lastly, changing the daily routine and school route could also happen due to the parent's perceptions of the temporary 'nice weather' and this contributes to the overall appeal of walking/cycling to and from school (Faulkner et al., 2010). On the other hand, the rain and cold sometimes made walking unpleasant for these parents, and therefore a less desirable travel mode choice for the journey to and from school (Faulkner et al., 2010).

2.2.1 Using the school environment

Parents and children are filling in their home-school mobility in many ways (e.g. Timperio et al, 2006; Faulkner et al, 2010; Pooley et al., 2010). Therefore, parents and children are using the school environment differently. Active school travelling or taking the car, going alone to school or together with classmates, such choices are constantly coming up within families related to the field of home-school mobility. In general, parents perceive taking their child to school as a necessary and functional task and this is often the end of a morning routine within a family (e.g. Ross, 2007; McDonald & Aalborg, 2009; Parusel & McLaren, 2010). This is consistent with the thoughts of the Danish urban planner Jan Gehl about necessary use. Gehl (2006; 2011) states that necessary use is about goal-oriented, functional activities that have no choice. The vast majority of current activities fall under this category of use (including bringing your child to school). This type of use occurs regardless of the quality of the public space and in all different places at all different times of day and year. There is more or less an independency of the exterior environment. Participants have to use these places to do their tasks. Therefore, necessary activities include those that are compulsory. In other words, all activities in which those involved are to a greater or lesser degree required to participate (Gehl, 2011, p. 9). Other types of use who Gehl (2006; 2011) distinguishes are optional and social use. These types of use can also occur because the activity one does, with regard to how much and the kind of human activities that take place and how long the activities last (Gehl & Gemzøe, 2001). Optional use depends

very much on the quality of public space. This type of use concerns the use of the public space that people choose, if at least time and place make it possible. Important here is the freedom of choice, so what does one place have and the other does not offer and what feeling does it get for people. The importance of the perception of public space is most important with optional activities, when people perceive public space in a positive way, optional and social activities can take place. Optional use occurs at convivial public places, which invite people to use the space (Gehl, 2011, p. 11). Social use, on the other hand, is about all kinds of use that depend on the presence of others and on the quality and duration of other types of activities. This type of use is also seen as the result of necessary and optional use, because it takes place spontaneously in places where people are at the same time, sharing the same space. The kind of social use depends on the specific location. There are many social activities in residential streets or close to schools, because people know each other more and have something in common. Social activities include children at play, greetings and conversations communal, activities of various kinds, and finally passive contacts, simply seeing and hearing other people (Gehl, 2011, p. 12). In this respect it seems important for the LAD initiative to change the necessary activity for parents bringing their child to school more towards an optional/social activity.

According to Gehl & Gemzøe (2001), the design of public spaces can influence the nature and quantity of use by a certain physical device. The use of people depends on the quality of the physical design and the function of public space (Gehl & Gemzøe, 2001). Related to this research, this also applies to the public space around schools where a certain use takes place consisting of bringing children and picking them up again. In addition to physical aspects, the social characteristics of the user have an influence on the use of public space. Sometimes there is a plea for making adjustments in the device so that it better meets the specific wishes of these groups of users. Parents and children would therefore like to have a structured, well-organized and safe public space around schools. However, Valentine (1997) stated a few decades ago that at this time parents already realize and accept that they should give their children more freedom to engage in public space. In relation to school environments, this statement is a lot more sensitive among parents with children attending school.

However, in a heterogeneous society the interests of people become increasingly divers and competing (Carr et al., 1992). Because parents bring their children to school in different ways, home-school mobility can also be potentially conflicting. The difference in the use of means of transport, routes, traveling companions and saying goodbye can lead to confrontations within the school environment, making the existing irritation among parents an important issue. The growing differentiation of lifestyles may spark conflicts between users of public space (Zukin, 1998). Lofland (1988) speaks of parochialism when the presence of one group prevents others from using public space. Individuals increasingly claim particular spaces as their own, where they go to meet the people

they want to meet and avoid those they do not want to see. People create meaningful public space by expressing their attitudes, asserting their claims and using it for their own purposes. Spaces are therefore often claimed by parents within a school environment during their practice of bringing their child to school. According to Hajer & Reijndorp (2001, p. 56), this turns public space into an archipelago of spatial enclaves. It thereby becomes a meaningful public resource. The process is a dynamic one, for meanings and uses are always liable to change (Goheen, 1998).

Thus, as people's behaviour and living conditions change, their needs and use with regard to public space will change too. This is in accordance with the thought of sociologist Henri Lefebvre (1990) who argues that public spaces, and therefore also school environments, are not solely the products of planners and architects but are produced by and within a society of all different people. However, it is striking and contradictory that in reality the traffic expert is often the only expert who is in contact with the municipality (Verkade & te Brömmelstroet, 2020). Planners are usually involved at a higher level, in the overall planning of the district. But there are also several important people who are not present during consultations about the school environment. Such as an educator, an ecologist, a health expert or a psychologist. While it is really about the immediate environment around a school (Verkade & te Brömmelstroet, 2020, p. 43). According to Lefebvre (1990), every society produces its own space; this means that all different societies have different kinds of public space. In his opinion, it is not possible that public space is designed by one idea that fits all situations. Every situation of public space needs another way of thinking, because they differ in social structure. There is therefore no certain blueprint planning that can be used continuously for the development of a school environment. The "one size fits all" statement is therefore certainly not applicable to school environments in general. The desired management of the home-school mobility therefore seems in many ways a challenging task.

2.4 Safety and perception

In addition to the previous paragraph, safety and the parents' perception of their child's safety seem to be real important influencing factors for parents to determine the travel mode related to the practice of bringing their children to school. According to several relevant studies, the issue of safety comes forward being a key factor in relation to the parents' practice of bringing their child to school (e.g. McDonald & Aalborg, 2009; Parusel & McLaren, 2010; Westman et al., 2017). In addition, there is ample evidence that parental concerns about traffic safety are key drivers that are influential in their decision about whether or not to allow their child to use active modes to travel to school (Timperio et al., 2006; McMillan, 2005 in Giles-Corti et al., 2010, p. 549). Other studies have found that children who report that their parents are worried about abduction/molestation or traffic danger and who do

not allow them to go out without an adult are more likely than others to be driven to school (Evenson et al., 2003; Timperio et al., 2006).

According to Giles-Corti et al. (2010) who have studied the relation between the school site and the potential walkability to school, a suggestion could be made on the fact that the impact of traffic on children's walking behaviour is amplified positively or negatively, depending upon neighbourhood street network design. Timperio et al. (2006) add that street connectivity was negatively associated with active commuting to school, but this may be because connected street networks have the potential for more traffic, higher speeds, and more street crossings (Sirard and Slater, 2008). In fact, Vanderbilt (2007) describes that the issue of traffic and its safety is more a living laboratory of human interaction, a place thriving with subtle displays of implied power. Furthermore, Timperio et al. (2006) found that parental perceptions of the need to cross several roads to reach play areas, and lack of traffic lights or crossings are negatively associated with children regularly walking or cycling to local destinations, including the school environment. In addition to these parental perceptions, Sirard & Slater (2008) suggest that there needs to be a better understanding of parents' perceptions of their child's ability to navigate their physical and social environments. The outcome of their research was that parents expressed that they were uncomfortable with allowing their children to travel alone to and from school because they perceived that their children lacked the maturity and skill set needed to travel alone safely. Positive perceptions of neighbourhood, social trust and cohesion moderated these fears among parents (Faulkner et al., 2010).

Although safety and perception are very important issues among parents, much is practically done in the school environment to ensure that drivers drive as safely as possible. This is related to the discipline of traffic psychology, because the driving environment is made as simple as possible, with smooth, wide roads marked by enormous signs and white lines that are purposely placed far apart to trick drivers into thinking they are not moving as fast as they are (Vanderbilt, 2007). It is a toddler's view of the world, a landscape of outsized, brightly coloured objects and flashing lights, with harnesses and safety barriers that protect us as we exceed our own underdeveloped capabilities (Vanderbilt, 2007, p. 90). The safety issue is an issue that therefore weighs heavily for many parents when choosing how to bring the children to school. That this consideration is understandable is due to the behaviour of car drivers. Even within a school environment, where physically often enough is implemented to make the public space safe and to make people feel safe, sometimes unsafe situations can still arise. For example, there is the integration of the invention of a kiss-and-ride. For many schools, the school environment is designed with space for a kiss-and-ride. This is a kind of traffic square where you can safely drop your child by car and then continue driving. According to many traffic experts, this is safer and faster than parking and driving away. However, the kiss-and-ride is more of a 'kick-and-ride': you quickly kick your child from the car into the main entrance of the school and then you continue driving

as a parent (Verkade & te Brömmelstroet, 2020, p. 42). Moreover, if the school's policy is that you, as a parent, have to bring your child into the classroom, you will notice that this traffic engineering invention is often not so suitable and desirable for safe and caring home-school mobility (Verkade & te Brömmelstroet, 2020). This contrast between safety perception and the actual effect is always an important aspect within the school environment (Parusel & McLaren, 2010). The introduction of a kiss-and-ride also makes a school environment more attractive for parents to come by car. Therefore, parents are also caught in the constant contradiction that, whereas driving children to school may appear safer, it is likely to be more dangerous than letting them walk (Granville et al. 2002). The following quoted text part by Vanderbilt (2007, p. 186) shows this contrast in safety perception among driving parents, as users of the school environment, and their displayed behaviour:

> *"Try to remember the last time you saw, while driving, a "School Zone" or "Children at Play" sign. Chances are you will not remember, but if you can, now try to recall what you did when you saw it. Did you suddenly slow? Did you scan for children? If you are like most people, you did nothing. You may not have understood what it was asking you to do, which is rather common. (…) More likely, the reason you did nothing when you saw the sign is that there were no children playing. If there were children playing, you probably saw them before you saw the sign. "Children at Play" signs have not been shown to reduce speeds or accidents, and most traffic departments will not put them up. Yet why do we seem to see so many? City governments usually post them to assuage complaints by neighbourhood residents that people are speeding down their streets. They may have even been put up after a child was hit or killed by a driver, in which case it would probably be more effective to erect a sign saying just that."*

2.5 Personal characteristics

The personal home situation of parents seems to be an influencing factor that should not be underestimated. Existing research suggests that car ownership and attending private schools are associated with lower odds of walking and a higher likelihood of car travel to school (Carlin et al., 1997; Timperio et al., 2006). The car can be seen as a means of lowering the difficulties for households with time-constraints (Trapp et al., 2012). Sheller (2004) writes that the 'family car' is closely integrated into daily routines and supports feelings associated with taking care of loved ones. Other studies related to school travel mode indicates that children who report that there is never a parent or adult at home after school, are more likely to walk/cycle to school (Evenson et al., 2003; Timperio et al., 2006). Although in the last decades, walking to school has been constructed as a 'lost experience', the implication being that children are no longer able to make such journeys (Ross, 2007). However, this

statement is no longer the case nowadays. While population density, street connectivity, and mixed land use are associated with walking for transportation among parents, active commuting to school was positively associated with population density, not associated with connectivity and negatively associated with school size (Timperio et al., 2006). Another personal characteristic that can be distinguished is economically. Income obviously proxies many other relationships: families with higher income might have more flexible working hours or might only have one parent working, which allows parents to drive their children to or from school (Larsen, Gilliland & Hess, 2012).

Subsequently, personal factors of the child have been found to influence travel behaviour, mostly through what they are allowed to do by their parents, which is related to their gender (Shaw et al., 2015; Trapp et al., 2012) and age (Carver et al., 2013; Shaw et al., 2015). Girls were more likely than boys to be driven by their parents to local destinations, such as school, reflecting lower levels of independent mobility among girls compared with boys (Prezza et al., 2001; Carver et al., 2013). Additionally, Curtis, Babb & Olaru (2015) found in a way that boys had more freedom to travel to and from school unaccompanied by their parents than girls did. The other personal characteristic of age is also important for parents in the way they bring their child to school. The age of children was often found to be of great influence on the relationship between active travel behaviour and its many predicting factors (Carver et al., 2013; Kann et al., 2015). Moreover, parents must continually negotiate what it means to be a ''good parent'' in specific and changing circumstances, for example, in accommodating their children as they grow up and demand more independence (Parusel & McLaren, 2010, p. 134).

Increasing age of the child is associated with reduced odds of being driven home from school and to local destinations (Carver et al., 2013). Kemperman & Timmermans (2014) and Aarts et al. (2013) found that as children in the Netherlands grow older, they are more likely to use the bicycle instead of being transported by car. As an explanation, this can be associated with the ownership of a bicycle, which increased with age (Kemperman & Timmermans, 2014). This may be related to greater levels of independent active mobility among older children, compared with younger children (Carver et al., 2013). Therefore, it is clear that children do not have the same skills when participating in traffic as adults and so as their parents (Van de Craats, 2019). The traffic-related abilities among children is lower than the ability of parents. Table 2.1 below shows the mentioned traffic-related abilities of children, by age in relation to their school period (VVN, n.d. in Van de Craats, 2019, p. 44).

Age	Traffic-related abilities of children by age
3 years old	Walking while also focusing attention on other factors.
4 years old	Running becomes easier. Children commence riding a bicycle. They still swerve when looking around and have trouble remaining the balance.
5 years old	Children learn to ride the bike without thinking. They can now start learning to participate in traffic.
6 years old	Traffic is still a game to children, they do not recognize the danger, they are not yet a proper participant in traffic.
7 – 8 years old	Children start having a sense of wrong and right, parents can start teaching them to be careful and polite in traffic.
8 – 9 years old	Rules remain important, children until this age might still not recognize danger.
8 – 12 years old	Children of this age usually already participate quite often in traffic; their skills are improving but they are still easily distracted.

Table 2.1: Traffic-related abilities of children by age (VVN, n.d. in Van de Craats, 2019, p. 44)

2.5 Behavioural policy: influencing people's choices

The American urbanist William H. Whyte can be seen as a pioneer in the study of human behaviour in urban settings (Hine, 2013). He noticed that some public spaces were filled with people and activities, while others were empty and left behind. He started developing rules to make public space liveable and welcoming environments, where people could have several activities such as meeting, relaxing and playing. However, in the last decennia this translated in problems regarding who uses which places and who feels welcome where. Consequently, when places are convivial for some, they are unwelcoming for others as well. Whyte's main point here is that interactions and behaviours of people influences the certain use of public space (Hine, 2013). This deals with another distinction of use of public space: the individual or shared use. According to Whyte (1980), shared use is a quality of a public space because people then consciously opted for that place to meet each other. This does not mean that "successful public places" only take place in joint activities, individuals can also be found there more often. *"The best-used plazas are sociable places with a higher proportion of couples than you find*

in less-used places: more people in groups, more people meeting people, or exchanging goodbyes"
(Whyte, 1980, p.17).

Related to the discipline of psychology, behavioural influence related to the policy domain has been a popular subject for many years (e.g. Cane et al., 2012; Michie & Johnston, 2012). However, for a long time, the use of findings of behavioural sciences in policy have been rather unsystematic (Lehner et al., 2016). In relation to the parents' practice of bringing their child to school, everyone benefits from a structured school environment without any feeling of unsafety. The plan of the school environment is often already drawn up on the drawing board. In recent years, all kinds of plans and policies have been developed to make school environments more user-friendly for parents and their children (Verkade & Brömmelstroet, 2020). Environments have been created that encourage reduced rates of automobile use and increased rates of walking by creating more mixed-use, compact, and better connected neighbourhoods (Larsen, Gilliland & Hess, 2012, p. 1349). Most researchers agree that behavioural adaptation seems more robust in response to direct feedback. Since it turns out that the physical design of the school environment is still quite complex, the solution for a more pleasant school environment may lie in influencing the behaviour of the users, namely the parents and children.

LAD therefore responds to influencing the (social) behaviour of the users, so that less emphasis is placed on the physical aspect of the school environment. If parents and children experience less stress and irritation during their school journey, the school environment can still be made more enjoyable. Because when you can actually feel something as a user, it is easier to change your behaviour in response to it (Vanderbilt, 2007, p. 268).

2.6 Conceptual framework

To make a connection between all scientific theoretical literature mentioned and the SPT-model, a conceptual framework has been created as seen below (figure 2.2). The framework shows the relations of the concepts described in relation to the studied parents' practice of bringing their child to school. This relation is influenced by the three SPT components of *meaning, material* and *competences* and the degree of behavioural policy applied, in the form of the LAD initiative, during the journey to school.
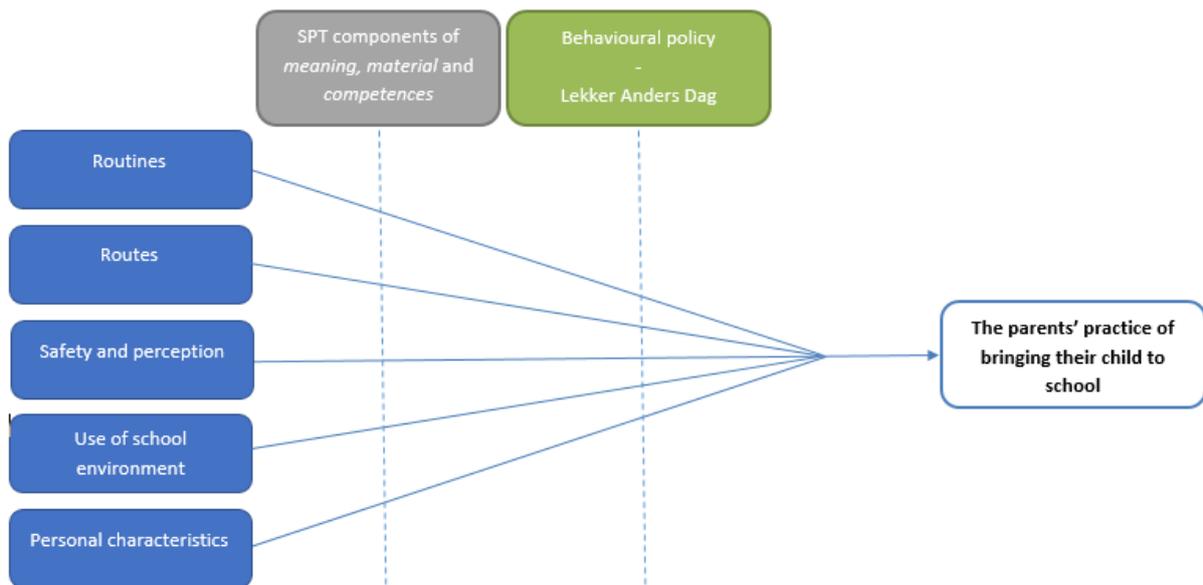
Figure 2.1: Conceptual framework

Although these five concepts are put into separate boxes, they all have a strong relation with the studied practice. In their own way, these aspects are collectively part of the journey to school from the parents' perspective. The influences of the SPT components play an important role in this process of home-school mobility (hence the dotted line that is intertwined with the five concepts). Throughout the school journey, *meaning, material* and *competences* have different emphasis on the reality and experiences of parents.

Lastly, the conceptual framework includes the existing behavioural policy within the school environment. In this research context with participating schools, LAD play also a role as a form of behavioural policy. The dotted line illustrates that the context of behavioural policy is involved in all different concepts as it is believed to influence them all. These concepts and the influencing SPT components, combined with the behavioural policy, eventually determined the parents' practice of bringing their child to school. How all these parts of this conceptual framework and their coming together was researched, will be explained in the next methodological chapter.

Chapter 3 – Research trajectory: Methodology

3.1 The home-school journey as the context

As expressed throughout the previous chapters, this research is about the parent's practice of bringing their child to school. The role of parents within the practice of bringing their child to school is very important to determine how their child is reaching the school environment. For parents, this practice can be divided in three components with multiple factors involved. As the conceptual framework stated, these components consist of the components of *meaning, material* and *competences*. To be able to answer the research questions, data needed to be collected using a clear methodology. The data for this research was collected by doing a mixed-method study. Therefore, the fieldwork for this study consists of three parent interviews, three expert interviews, two walk/ride alongs with different families, four observations at schools of LAD activities and a digital survey (N = 387).

3.2 Methodology: mixed-methods research

In a mixed-methods study, qualitative and quantitative research are combined in one project (Bryman, 2008). Only since the 1980s is mixed-methods research increasingly used (Creswell & Plano Clark, 2007). There has been a fundamental debate about whether it is possible to combine quantitative and qualitative research (Creswell & Plano Clark, 2007). Two views can be distinguished in the debate (Bryman, 2008). The epistemological view states that quantitative and qualitative research is based on incompatible principles and trends. According to this view, in qualitative research it is not appropriate to study people as if they were passive "respondents" (quantitative research), instead of active participants (qualitative research) (Boeije, 2010, p. 157). And the reverse is also incorrect according to this view. To use researchers as data collectors in quantitative research instead of using more objective methods. According to the underlying trends, it is therefore not possible in this vision to combine quantitative and qualitative research. In the technical view, these differences are seen, but not so strongly placed. Rather, people look at the possibilities and benefits of data collection and data analysis that both quantitative and qualitative research entail. This makes mixed-methods research feasible and desirable. De Boer (2016) sees mixed-methods research as a valuable addition to quantitative and qualitative research. This type of research not only provides insight into size or differences, but also into different layers and levels. You can use this to explain why something has become the way it is now (De Boer, 2016, p. 10). However, mixed-methods research often takes more time by using two methods than when you choose one method (Bryman, 2008). Also because the integration or synthesis of both types of data takes time. Both types of research must be designed, conducted and analysed according to the applicable quality standards (Bryman, 2008).

The qualitative part of this research consists of parent interviews, expert interviews, walk/ride alongs and the observations of LAD activities at schools. The quantitative research is expressed in the survey conducted among a large group of parents. In total, three methods of data collection were used. Using this mixed-methods approach has both advantages and disadvantages. The most important disadvantage is that redistributing research time over these three different methods might reduce the overall depth of the data collection and analysis. The survey was used to find out the opinions and experiences of the largest possible group of parents in relation to the practice studied. Arguably the survey could have been more elaborate (in terms of questions asked) or analytical (in terms of statistical tests performed). However, the intention of this survey was mainly to obtain supportive background information about the journey to school resulting in a basic understanding of the parents' reality within the school environment and their experiences with LAD, as this information was lacking. During my traineeship, I designed the survey in collaboration with colleagues and helped to distribute it to the participating schools. After this set-up I was personally responsible for converting all data into results. This made it possible to use this survey on the one hand for UBACHS / full contact and on the other hand for this study.

In order to go deeper, several interviews were conducted with parents and traffic experts. With parents, it was especially possible to gain more clarity about all their activities during the journey to school in the morning combined with all experiences of LAD. The school environment was discussed with traffic experts to determine to what extent certain behavioural policies in this area can actually influence (or nudge) the behaviour of parents as the final destination of their journey to school with their child. Moreover, with these experts it was possible to find out why the LAD was chosen, what the underlying necessity was and what use the initiative has in their view. In order to be able to answer the two research sub-questions in more detail and to have my own experience with the researched practice, two walk/ride alongs to school with two families have been attended and four observations were made during LAD activities at several schools. Similarly, the qualitative study could have included more respondents, walk/ride alongs and observations if I had focused on one method. For example, the choice for accompanying two families to school is somewhat limited. Nevertheless, I am convinced that the strength of this exploratory research is precisely the combination of qualitative and quantitative data, despite these drawbacks. The survey, as qualitative study, mostly shows the bigger picture with an overall *outcome* of the studied practice for a larger group parents as respondents with opinions about the school environment and LAD. The qualitative study (interviews, walk/ride alongs, observations) illustrate the underlying *process* of the parents' practice of bringing their child to school, including the emergence, interpretation, execution and experiences of the journey to school in combination with the existence of LAD.

3.2.1 Participatory research with an ethnographic character

A large part of this data was gathered with qualitative research, more specifically by doing participatory research. Ethnography plays an important role in this. This method is aimed at gaining a deeper understanding of a situation by collecting data in a real-life environment (Creswell, 2013). Or as Herbert (2000, p. 551) stated, in "all its richness and complexity". Ley (1988, p. 121) puts it further, "concerned to make sense of the actions and intentions of people as knowledgeable agents; indeed, more properly it attempts to make sense of their making sense of the events and opportunities confronting them in everyday life". Although this study does not refer to a full ethnographic research, to a lesser extent it can still be said that this study has an ethnographic character. Therefore, I describe and interpret the shared and learned patterns of values, behaviours, beliefs and language of a culture-sharing group (Creswell, 2013). In this case are the involved parents, who bring their child to school, the culture-sharing group. Doing participatory research with an ethnographic character is considered to be very useful in unravelling the processes and meanings that are the basis of socio-spatial life (Herbert, 2000). Therefore, I suppose that this qualitative research method is suitable for gathering data for this research because it is an interesting way of getting into the behaviour of the parents, who bring their child to school, while also getting to know their (social and practical) attitudes and desires towards travelling to school. The ethnographic method is labelled as both a process and an outcome of research (Agar, 1980). As a process, it involves extended observations of the group, in which the researcher observes and interviews the group participants. For this reason, I have expressly elaborated the combination of various participant observations and interviews in this research. Therefore, related to these actions, the '*settings, contexts, times and people*' are consciously selected (O'Reilly, 2009)

Over the past decade, geography has been subject to change. Whereas geography used to primarily focus on concepts such as space, time, place, scale and landscape (Clifford, Holloway, Rice, & Valentine, 2009), mobility has become a topic of major importance as well. Because this study focuses on the journey to school, the home-school mobility for parents and their children plays an important role. Creswell (2013) recognizes that mobility is central to contemporary everyday life. The geographically relevant so-called method of mobile ethnography seeks to understand the mobile everyday by focusing on the interplay between observations, cognitions, and sensations in motion (Urry, 2007; Novoa, 2015). According to Fincham, McGuinness & Murray (2010), there is a big emphasis on being part of the setting and on physical co-presence. Mobile ethnography distinguishes themselves by paying special attention to movement (for example within the school environment), to the world in transit.

3.3 Methods of data collection

The conducted data in this study is obtained with three different methods: participant observations, interviews and a survey. As with all types of inquiry, there is no single way to conduct research and multiple approaches are possible (Creswell, 2013; Wolcott, 2008). Clear is that all these methods are used to gather the types of information typically needed involves going to the research site, respecting the daily lives of individuals at the site, and collecting a wide variety of materials. Therefore, participatory research brings a sensitivity to fieldwork issues (Hammersley & Atkinson, 1994). How the fieldwork methods were used in this study are explained in the following paragraphs.

3.3.1 Research field

The fieldwork took place in the three municipalities where LAD is active, namely Cuijk, Wijchen and 's-Hertogenbosch. At the time of the fieldwork process, the municipality of 's-Hertogenbosch was the only research location where the LAD initiative was rolled out at the time. During the research, the kick-offs at four different schools in this municipality were the only (new) LAD activities that took place at that time. This development in 's-Hertogenbosch gave me as a researcher the opportunity to observe these activities. The idea of four observations also gave me as a researcher the feeling that this would give me a more reliable impression of how LAD is introduced in a school than if it were only one observation.

In the other two municipalities, LAD has already started for over a year and participating schools are at a different stage. This made it possible to use Cuijk and Wijchen as a research location for the parent interviews and the two walk/ride alongs, because parents (and children) have already built up experience with the initiative here. The expert interviews were held with a traffic expert from all three municipalities participating in LAD. This would give me a proportional view of experts who have had experience with and thoughts about the introduction of LAD at schools in their municipality (Cuijk and Wijchen) for a long time and an expert who has recently started introducing LAD in his municipality ('s-Hertogenbosch). Using the survey, which was conducted among parents of three schools in Cuijk, many opinions and reviews about the school journey and LAD will emerge based on experiences of a longer time. Table 3.1 below shows the time frame of all fieldwork performed during this research.

Fieldwork	Period	Person/School	Municipality
Interview traffic expert (1)	May 2019	Koen Gijsbrechts	's-Hertogenbosch
Interview traffic expert (2)	June 2019	Eric Noij	Cuijk
Interview traffic expert (3)	December 2019	Colette Bitter	Wijchen
Observation LAD activity (1)	June 2019	KC De Groote Wielen	's-Hertogenbosch
Observation LAD activity (2)	September 2019	KC De Hoven	's-Hertogenbosch
Observation LAD activity (3)	October 2019	L.W. Beekmanschool	's-Hertogenbosch
Observation LAD activity (4)	October 2019	KC Het IJzeren Kind	's-Hertogenbosch
Walk along (1)	February 2020	Poels family	Cuijk
Ride along (2)	February 2020	Hogenkamp family	Wijchen
Interview parent (1)	February 2020	Debby Poels	Cuijk
Interview parent (2)	February 2020	René/Eveline Hogenkamp	Wijchen
Interview traineeship	February 2020	Paul Ubachs	Nijmegen
Survey	Autumn 2019	N=387	Cuijk

Table 3.2: Time frame of fieldwork

3.3.2 Participatory observations

The participant observations for this research are formed by two walk/ride alongs with two families in Cuijk and Wijchen and the attendance at four LAD activities on schools in 's-Hertogenbosch. These different observations have led to multiple (new) insights in the field of home-school mobility in combination with LAD. As a process, participatory research involves extended observations of the group in which the researcher observes and interviews the group participants (Creswell, 2013, p. 90). Therefore, observation is one of the key tools for collecting data (Creswell, 2013). According to O'Reilly (2009) and Creswell (2013), observations can be distinguished into four types: *complete participant, participant as observer, nonparticipant/observer as participant* and *complete observer*. This decision is important because observing researcher also 'samples' through his/her participation (Creswell, 2013). During this study for the walk/ride alongs and the observations with LAD activities at schools, I used the observation type of a complete participant. Hereby was I fully engaged with the people I was observing. This helps to establish greater rapport with the people being observed (Angrosino, 2007). According to Vennix (2011), if a researcher is interested in people's behaviour, a complete participant

observation seems to be a valid observation method. But also with observation, when the persons examined are aware that they are the object of research, they may start to behave differently (Vennix, 2011). Observations are particularly suitable for studying human behaviour (Korzilius, 2008). The physical setting, participants, activities, interactions, conversations, and the own behaviour of the researcher during the observation are very crucial (Angrosino, 2007).

All the participant observations were supported with the use of an established observation protocol (see Appendix 1), to keep track of all the provided information. Or as Lofland & Lofland (1995, p. 66) state it, "logging data". This process involves recording information through various forms, such as observational field notes, interview write-ups, mapping, census taking, photographing, sound recording, and documents (Creswell, 2013, p. 170). Taking brief notes, called initial "jottings" (Emerson, Fretz & Shaw, 1995), were a crucial part during all the participant observations. These "jottings" made it possible for the researcher to later draw up a detailed description of all observations.

Walk/ride alongs

These extensive observations, in which I went as a researcher with both families, were a new special research experience. In order to experience the journey to school as close as possible, I chose to approach two families from Cuijk and Wijchen. Families in the municipalities of Cuijk and Wijchen have had long-term experience with LAD, so I was able to return to this topic in the interviews. From the existing LAD database of UBACHS/full contact I had the opportunity to select families. A total of 460 families registered for all LAD schools in Cuijk, and 440 families in Wijchen. The criteria I set beforehand for choosing schools and families were: size of school and distance to school. However, reaching out to families and getting approval to do a walk/ride along with them turned out to be more difficult than expected. The reality was that there were multiple rejections from randomly approached families on my research request. Partly because of this, it seemed sensible to be able to carry out the walk/ride along with at least two families, taking into account a difference in school size and the distance between home and school. The choice was made to select a family in Cuijk from the largest school in the municipality, called De Waai. And in Wijchen I chose to select a family that lived relatively further from a smaller school, called De Speelhoeve, so that the distance between home and school would be larger. Since the residential addresses of all registered families are known in the database, I was able to compare residential addresses in relation to the schools using Google Maps.

As a result, I eventually reached the Poels family in Cuijk and the Hogenkamp family in Wijchen (as shown in Table 3.1 in the previous paragraph) with whom I was able to experience the morning ritual and the journey to school. On the one hand, the Poels family lived reasonably close to school, so they went to school on foot (walk along). On the other hand, the Hogenkamp family lived relatively

further away from school. This allowed me to experience going to school in a different way (ride along). Table 3.2 and Table 3.3 below show more detailed information about the participating families.

Family	Children	Age	Class	School	Place
Poels	Two daughters	6 and 8	Groups: 3 and 5	De Waai	Cuijk

Table 3.2: Information about the Poels family

Family	Children	Age	Class	School	Place
Hogenkamp	One son Two daughters	6, 7 and 9	Groups: 3, 4 and 6	De Speelhoeve	Wijchen

Table 3.3: Information about the Hogenkamp family

It was not only the intention to experience the journey to school itself. In addition, it was also the intention to experience the situation at home with both families before the journey. Getting up, getting dressed, having breakfast, preparing lunch, choosing the mode of transport, all processes that can cause stress and hectic in the morning. What actions are going on in a family in the morning? Are there any rules that apply at home in the morning process? Are there certain routines that parents and their children follow, because otherwise the preparation for the journey to school goes wrong? All these impressions are best investigated if you participate in the family as a participating observer and experience everything up close. As a researcher, I consciously made the choice to be early in the homes of the Poels family and the Hogenkamp family. In addition to attending the journey to school, I also largely attended the morning trial with these families.

The journey from home to school naturally brings a lot of incentives. Participant observation is ideal for experiencing this up close in real life. It is interesting to experience the rules between parents and their children regarding all traffic on the way to school. In addition, certain routes can be taken to school and these routes can also have advantages and disadvantages. And to what extent are encounters with other parents and children on the way, so that the journey to school can also be experienced socially? There is also the situation in the school environment itself. Crowds and hectic activities play an important role in this environment in the morning. During our journey to school, I experienced together with the Poels family and the Hogenkamp family how such a school environment is used just before school starts. In addition, the infrastructure in both school environments was also explicitly examined. Is there enough space and are there enough facilities for all road users? How does all traffic flow? And more importantly, how do parents end their journey to school here with their own children? An extensive description of the walk along with the Poels family in Cuijk and the ride along with the Hogenkamp family in Wijchen can be found in Appendix 7.

LAD activities on schools

As mentioned in the introduction chapter, during my internship I was also part of the LAD team. This gave me the opportunity to experience a number of LAD activities at multiple schools during the fieldwork phase of this research (see participating schools in Table 3.1 above). After the municipalities of Cuijk and Wijchen, it was now the turn of the municipality of 's-Hertogenbosch to introduce LAD at schools. Four kick-offs were launched in the new school year. Although as a member of the LAD team I mainly had a support function with managing registration forms, distributing LAD attributes and helping with the decoration of the school yards. At the same time, in my role as a researcher, I held a double position because I could taste the atmosphere of the introduction of LAD at a school in a relevant neighbourhood. From a certain distance I was given the opportunity to observe how (the start of) this whole initiative was received by parents and teachers. This part of fieldwork has made me better understand the school environment and the combination with LAD.

As a researcher I also had the opportunity to have short conversations with parents and teachers about the studied practice. My intention was mainly to have these conversations with an open mind without any interview guide. This was also conceived because the fieldwork also took place in a somewhat noisy and messy environment. In addition to these short conversations, attending these kick-offs also gave me an impression of the different school environments of the four schools. For example, I have experienced in person that a school within a neighbourhood with many newly built houses does have different infrastructure and approach routes than a school in the middle of the city where there are also more restrictions in terms of space. During these observations I made small notes that I could use for an elaborated description of these kick-offs as fieldwork (see Appendix 6).

3.3.3 Interviews

Although participatory observation provides a great amount of information and insights, it is even better to collect data in multiple ways. According to Tonnelat and Kornblum (2017) are observations yield rich data but is not exempt from bias, especially in a non-verbal communicative environment. Novoa (2015) adds to this that it proves itself useful to complete observations with other techniques, such as photographic albums and interviews. Because of this, it seemed sensible to add several interviews to obtain data. I decided to set up two different interviews: one with traffic experts and one with parents. Firstly, traffic experts were chosen as interviewees because of their expertise related to all dynamics within the school environment. These experts work in the three municipalities participating in the initiative of LAD (Cuijk, Wijchen and 's-Hertogenbosch) where this study is limited to. An important reason for this choice is that it is important to gain a total explanation about the school environment in general. What kind of space is this specific environment? And how affects this space the behaviour and actions of people who are making use of it?

Secondly, I had interviewed the parents of the Poels family and the Hogenkamp family separately after the mentioned walk/ride alongs. These interviews were really important for understanding the parents' point of view in relation to the studied practice about all their ideas, thoughts and experiences. After interviewing the traffic experts, it was now able to learn about how parents experience the journey to school with their children and how they also use the school environment in a certain way.

Thirdly, there took place an interview with the creator of the initiative of LAD, Paul Ubachs. As creator of LAD, this interview has been very valuable for this research to tell me how the initiative originated, why UBACHS/full contact has been approached by municipalities and what the underlying motives are for influencing parents with regard to showing (other) desired behaviour during their journey to school. Table 3.1 (see above) shows the conducted interviews for this study.

There are different ways of conducting interviews, from structured to unstructured; meaning free-flowing and formless (O'Reilly, 2009). For this research, I chose to take a middle course: semi-structured interviews. The topics that were discussed in the theoretical part of this research formed the basis for the interviews, focused on the three components of *meaning, material* and *competence* of the SPT-model. The interview guides used for both interviews (experts and parents), can be found in Appendix 2 and 3. According to O'Reilly (2009, p. 125), "in-depth conversations (or interviews) give the researcher and respondent time to delve more deeply, to express their feelings, to reflect on events and beliefs, and to even expose their ambivalences". Therefore, this phase of fieldwork did not only contribute to understanding all the dynamics within the school environment during the morning when school starts, but also engaged in opinions and desires of experts and parents regarding the different applied physical and social (such as the initiative of LAD) approaches; information that can be influential in the creation/sharpening of municipal policies and the designs of future school environments.

In addition to the advantages of the interviews, the researcher also has two disadvantages when people are questioned (Vennix, 2011). First, the situation is distorted by the fact that I have introduced myself as an interviewer. The question is how this distorts the experts'/parents' situation and answers. Second, because with this study I am interested in people's behaviour, then the verbalized behaviour is "measured", which is what people say they do. The question is whether this corresponds to their actual behaviour (Vennix, 2011, p. 218). Namely, there seems to be sufficient evidence to indicate that there is a reasonable discrepancy between what people say they do and their actual behaviour. I have tried to avoid this pitfall by also applying participant observations in reality. This also allowed me to compare what was said during the interviews with how I experienced the journey to school and the school environment in real life during the walk/ride alongs.

3.3.4 Digital survey

The quantitative part for this research stems from the use of a digital survey. Due to my traineeship period at UBACHS/full contact, I had the opportunity to conduct a survey in collaboration with colleagues. Due to the predominant qualitative character within this research, broader results related to the studied practice based on a larger group of people (parents) were lacking. As a result, a larger number of parents could be reached at the same time in relation to their perception and experience of their school journey and the school environment. With certain questions, this survey mainly allowed me to learn more about topics such as the degree of self-efficacy and irritation among parents, a safe school environment and the reputation of LAD. At the same time, results of this survey can serve as background support for the different outcomes of the interviews and observations. In surveys, data is usually collected in questionnaires. The questionnaire must be constructed in a reliable manner and the chance of incorrect information has to be minimized. Surveys are especially suitable for measuring individuals' perceptions, opinions, feelings, motivations and attitudes (Korzilius, 2008). In contrast to observations which, as mentioned, are particularly suitable for studying human behaviour.

The used survey for this study was about the topic of traffic around school. The questionnaire was designed via the survey program Qualtrics. The survey was distributed to three different schools in the municipality of Cuijk and approached approximately 600 parents in total (see Table 3.4 below). This group of potential respondents included all parents of the three schools regardless of knowledge of LAD or participating in the initiative. Although this distribution creates a large group of possible respondents, I could not assume that every parent with young children going to school would complete the survey. Non-response is therefore a problem that occurs frequently in survey research (Korzilius, 2008). However, the degree of non-response in this survey is low. Ultimately, 387 parents completed the survey properly and that is almost two thirds of all respondents approached. The survey significantly exceeds the minimum sample size for confidence level of 90% (267 respondents). This non-response was countered by a number of measures being taken. According to Zwart (1993), Swanborn (1994) and Korzilius (2008), it is important to provide an attractive and not too extensive questionnaire, a clear order in the questions, to get cooperation from an appropriate organization and to consider a reward for participating respondents. The latter two measures were achieved because the survey was distributed digitally through the three schools and respondents competed for the drawing of a gift voucher by participating.

The survey questionnaire consisted of 20 questions divided into two parts. The first part had eight questions about the perception of the traffic situation around the school when the children are brought. In addition, it was discussed how people fill in the journey to school and what degree of influence they experience in contributing to a pleasant and less traffic-intensive school environment. In the second part, twelve questions were asked for the respondents' opinions about the use,

usefulness and experience of LAD. Most of the questions were closed and a few questions were open, allowing for some explanation if needed. These open questions were only shown to the respondent if he followed a certain routing in the questionnaire. The closed questions were asked in the manner of 'Likert items' (Vennix, 2010). This type of question consists of a statement and then an odd number of answer options (Vennix, 2010, p. 204). To give respondents the opportunity to give more varied answers, an answer format with the seven-point scale was used. Other closed questions also include a ten-point scale to provide a clear rating in response. The complete survey questionnaire can be found in Appendix 8. Table 3.4 below summarizes the mentioned information from the survey.

Type of fieldwork research	Total number of potential respondents	Participating respondents (parents)	Participating Schools	Place of survey
Survey for parents of LAD: "Traffic around school"	Around 600	N=387	- De Waai - De Nienekes - 't Startblok	Cuijk

Table 3.4: Survey information

3.4 Analysis

Next to data collection, the analysis of all this collected data is also of huge importance. I collected much data material by applying the methods of participant observations, interviews and survey. According to Creswell (2013), analysing text and multiple other forms of data presents a challenging task for researchers. Especially my individual choice to involve qualitative and quantitative methods in this research gave me a lot of diverse data that I had to analyse at the same time.

Data-analysis is not off-the-shelf; it is custom-built, revised and "choreographed" (Huberman & Miles, 1994). The process of data-analysis is not a distinct step in the whole. It is more interrelated with the processes of data collection and report writing and often go on simultaneously in a research project (Creswell, 2013). It is logical for ethnographic research that it moves back and forth (O'Reilly, 2009). According to Bleijenbergh (2013), a researcher can either try to build theory on social phenomena or test existing theory in practice. In this research I did both and that is not unusual for participatory research. The processes of theory building, data collection, data analysis and interpretation are not neatly consecutive. Ezzy (2002 in O'Reilly, 2009) adds that researcher should enter into an ongoing simultaneous process of deduction and induction, of theory building, testing and rebuilding. Therefore, qualitative researchers often "learn by doing" data analysis (Dey, 1995, p. 78). Referring to the different methods of data collection, I could state that this "learn by doing" also applied for me as researcher.

3.4.1 Data processing and coding

The conducted interviews and observations were analysed according to the same process. The interviews that have been carried out have all been fully transcribed, as a result of which the process of manual coding and analysis could take place. For the observations, the field notes made are linked to the observation protocol and. These elaborations of the observations were then placed next to the codebook for later analysis. The survey was analysed with the statistical software program SPSS. The stored completed data from the survey were exported to SPSS, mainly to obtain descriptive statistics. Because the questionnaire mainly consisted of opinion questions in which a score had to be given, descriptive statistics was most useful. Moreover, descriptive statistics was also the approach for UBACHS/full contact to analyse the survey. Because much use was made of 'Likert items', certain assessments could be unilaterally analysed.

First keywords are manually assigned to transcribed interview texts. The keywords were then compared for similarities and differences. The encoding is made use of the deductive and the inductive method (Boeije et al., 2009). The coding scheme used for this research is included in Appendix 4. With the deductive method, the keywords of the conceptual model are assigned to text fragments. As a result, the three components of *meaning, material* and *competence* are used as the main coding, which are then subdivided into (new) fragments. Subsequently, the collected data was examined with an open mind, resulting in the researcher new insights have emerged. The associated new keywords are linked to text fragments (inductive method). Appendix 5 contains an example of a coded interview.

3.5 Towards the studied practice

After all the mentioned choices above in this chapter, this study is based on a mixed-methods research consisting of interviews, (participatory) observations and a survey. All these methods have been used appropriately to obtain as much insight as possible about the parents' practice of bringing their child to school in combination with LAD in line with the research objective.

In the next chapter, the studied parents' practice will be examined in more detail using the SPT components of *meaning, material* and *competence*, translated into an elaborated journey from home to school divided into three different stages.

Chapter 4 – The reality of the parent's practice: the journey to school

This chapter is about the reality of the parents' practice of bringing their child to school and captures the main characteristics, striking aspects and determining factors of the parents' practice of experiencing the journey to school. Though different in content and composition, the data that was gathered can be compared. The dynamic experiences of the walk and ride along with the two families (in Cuijk and Wijchen), the insights gained from the interviews of the parents and several survey results have provided a broad picture from the field of home-school mobility. The parents' practice of bringing their child to school will be discussed from different perspectives in the following paragraphs that describe the journey from home to school in the morning. This chapter is related to the first sub-question: *"Which components of the SPT-model (meaning, material, competence) are most relevant to parents during their journey to school?"* This journey is divided into three stages: 'the preparation at home', 'the journey itself' and 'the arrival in the school environment'.

4.1 Preparing for school

'That I as a "stranger" would experience the morning ritual, already brought the two children a lot of enthusiasm. Running indoors and jumping outside on the trampoline, the energy levels remained very high this morning. In the meantime, I had a good conversation with Debby about how things are going on a weekday morning. Getting up early, getting dressed, having breakfast, combing your hair, preparing lunch boxes, packing a backpack, bringing the gym clothes and discussing how to go to school. All these activities are carried out in the morning and are seen as a whole process within the Poels family. Also this morning the two children happily walked around the house and were very looking forward to school. The bread and fruit were neatly prepared, so everything was ready for our journey to school.' (Fieldnotes walk along, Poels family)

'Although I had only been between the Hogenkamp family for a very short time, I quickly felt at home here because of the warm welcome I received. All three children were playing on their tablets in the living room. I found out that there is an agreement within the family that the tablet can be played in the morning on Friday before school. This appointment has been made so that the children also find it special to play with the tablet. René and Eveline were busy preparing the children's backpacks. Bread, fruit and drinks were all carefully prepared. I was therefore told that diet within the family was an important topic that is addressed in the morning routine before school. After the children brushed their teeth, put on their shoes and found the right coat, it was time to leave for school. There was a very relaxed atmosphere in the house this morning and everyone was aware that we were going to school like this. I was told that this relaxed atmosphere also came through the day, because Friday for the kids also meant the weekend would start soon.' (Fieldnotes ride along, Hogenkamp family)

When the alarm goes off in the morning during the week, it means that a new day of school has arrived. As mentioned in chapter 2, the morning routine can be implemented in diverse ways (Ross, 2007; Giles-Corti et al., 2010). Mother Debby (Poels family) indicates that in general there is no standard way or ritual in which her children go to school. She does admit that a few steps have to be taken in the house in the morning before the journey to school can begin: "At 7:00 am they are allowed to get out of bed and we get dressed and brush our teeth. Then they can go downstairs and I will do their hair while they have breakfast. We pack the lunch boxes together and we are all ready for school. Then we always check the weather to be sure" (Personal communication, 2020). If these steps are all done on time, there will be no problem in terms of preparation. However, time is another important aspect for both families in terms of *meaning* of the school journey. "If we get up late or the routine does not run in the morning, it becomes the hasty decision. If everything runs smoothly and we have enough time, then there is simply more choice in how we go to school. I think morning routine really affects that too" (D. Poels, Personal communication, 2020). The aspect of time also matters with the other family. For example, parents René and Eveline (Hogenkamp family) indicate that there is a reasonable rhythm in their family so that you know if you have the children out of bed at that particular time, then you know at what pace the morning routine can run. The morning routine within the Hogenkamp family goes as follows:

"It is mainly getting up and having breakfast here in the morning. On Friday they can play with the tablet after they have eaten their breakfast. So those are fairly fixed things. They prepare their own bread to take to school. My wife always prepares the fruit bowls for everyone. When they have eaten, the next step is to put on their shoes and colour or play on the iPad. At some point around 8:10 am you have to call them and then we will leave for school. This always goes like this in this order" (Personal communication, 2020).

When choosing the means of transport for the journey to school, mother Debby especially wants her children to spend as little time in the car as possible: "Because I am so consciously involved with health and exercise, I may not be the standard parent. I encourage my children to go to school actively by letting them often cycle or rollerblade. It is also simply a choice of young investment, so that my children can regularly attend school in different ways" (Personal communication, 2020). In this perspective, it can be said that mother Debby mainly has the *meaning* with their school journey to offer her children an active morning commute. The choice of means of transport, as *materiality*, is therefore based on a more healthy parental point of view.

For parents René and Eveline, a different means of transport than the car or bicycle also means that the family has to leave home earlier: "This sometimes results in moments of struggle within this house in the morning. Because all days actually have a fixed schedule, there is also a certain stability

for the children in their morning rhythm" (Personal communication, 2020). The possibility of having to leave home earlier also means that something is asked of the family in terms of *competences*. The mentioned stability and morning rhythm indicate the preparation for the school journey is also built on certain shared conventions within the family, with this day pattern playing an important role in the family's *meaning* for the school journey. Mother Eveline appoints that on average the family goes to school by car three days a week and by bicycle two days a week depending on their work days: "We ourselves think that we should take our children to school by bike more often, because it is healthier and they benefit from traffic management. Furthermore, the car is not an issue with our children, they think it is fine anyway. I am actually waiting for the moment when one of our children says that the car is bad for the environment" (Personal communication, 2020). This process matches with Sheller's (2004) idea about the 'family car'. If both families decide to go to school by car, this is normally combined with the ride to work (Faulkner et al., 2010; Larsen, Gilliland & Hess, 2012).

However, the realization has also arisen that this car journey is not even necessary: "We recently discussed that this could actually also be done by bicycle, it is actually not very far to school. Whether you go straight to work by car or you cycle home first to catch the car, that does not really matter. So we have also become a bit more aware recently about using the bike more often" (R. Hogenkamp, Personal communication, 2020). However, in addition to the practical reason, there is also a personal reason why people cycle less. Because their second daughter does not feel completely confident about the bicycle, there is sometimes also a moment of protest in the morning, according to mother Eveline (Personal communication, 2020). In this case, the child's *competence* (using the bike) is important for the further *material* implementation of the home-school mobility. "Our practical considerations for explaining our car use are partly because of the babysitter, work and after-school care, because we ourselves are home later", says mother Eveline. Mother Debby agrees and says: "After-school care also has a major influence on the choice of transport in the morning. As a parent, you do not want your child to go with others, so that the bike remains at school all evening. Everything here has to be viewed in a very practical way" (Personal communication, 2020).

My children do not always agree with the decisions that are made at home in the morning, states mother Debby: "Sometimes it just does not work out practically, but then concessions have to be sought" (Personal communication, 2020). She continues by stating that her children really both have a say, but that she makes the final decision: "Sometimes there is nothing to choose in the morning, but often there is always a choice somewhere. Ultimately, parents are the people who determine the choices within the morning ritual at home for their children" (D. Poels, Personal communication, 2020). This matches with Faulkner et al. (2010) who state that parents are the ultimate decision-makers within the home-school mobility.

4.2 The school journey itself

'*This morning it was decided that we would walk to school. The children put on their Lekker Anders Dag bracelet for a while, because after all it was a special day because I (the accompanying student) went to school with them this morning. At 08:10 we left for the school from the back of the house. The four of us walked down the street towards the bridge that connects this new residential area with the existing residential area. Although it was a cold morning, the weather was very pleasant to walk to school with the sun shining brightly. The journey to school was very pleasant because there was a lot of talking and a lot of songs were sung. After the bridge, the journey went along one way directly to the school. During the walking tour, the mutual agreements between Debby and the children were also clearly visible. I was told that these agreements have been made, because Debby also thinks that her children are not yet independent enough to participate in traffic without supervision. Safety during the journey to school is paramount. Each crossing had to be stopped and Debby and their daughters crossed together after having had a careful look.*' (Fieldnotes walk along, Poels family)

'*The backpacks are tucked away in the bicycle bag of the bicycles, so that the children can ride their kick scooters freely. From my position behind the family, I had good space to observe. It is a pleasant journey, with not much talk. The children are especially busy on their kick scooter and I see their parents mainly paying attention to their safety. We follow the same road that goes towards the railway tunnel. On the way from side streets, more families join in this journey to school. The sounds of children and the greetings from parents to each other increased considerably over time. The Hogenkamp family falls apart just before the railway tunnel. The wheel of the kick scooter of their middle daughter has broken. As a result, René is left with her to walk the last stretch together. I continue cycling with Eveline and the other two children towards the rail tunnel.*' (Fieldnotes ride along, Hogenkamp family)

Once they have left home, the families are actually on their way and the journey to school continues. Independence is an important competence that emerges from the interviews with the parents. "This independence is reflected in the recognition of dangers, the overview and the speed with which they participate in traffic" (D. Poels, Personal communication, 2020). This corresponds to the fact that children do not have the same skills (Shove et al., 2012) as their parents when participating in traffic (Van de Craats, 2019). These forms of *competences* also have an effect on how people go to school. Mother Debby, for example, indicates that when they take the bike, she still goes with her children through the dangerous route for cyclists back home (as a form of *material* infrastructure), while she dares to let her children walk independently: "The whole cycling is still going too fast in my opinion. I do not trust that they can do this on their own so that is why I often go along. That bit of independence to be able to do it yourself has to gradually grow" (Personal communication, 2020). Age therefore plays

an important role for parents in giving their children independence (Carver et al., 2013; Shaw et al., 2015). Parents René and Eveline indicate that in the early years they had to pay particular attention to the children when crossing the road and the agreements made that belonged to this. They continue by stating that their children must also learn how to handle all the traffic (in relation to their traffic *competences*), which has also been made clear by Timperio et al. (2006). Mother Debby adds to this point: "For me, the older they get, the more I consider it responsible that they should be allowed to cycle to school alone without my supervision. I think they are too young for that now. I am always working on making them as independent as possible. It would be a positive development to let them cycle to school alone" (Personal communication, 2020). This development can be seen as a valuable *meaning* that the family ultimately wants to achieve with the school journey.

Over the years, the parents realize that their children are doing better in traffic. This could be seen as an elaboration of Valentine's (1997) statement about that parents already realize and accept that they should give their children more freedom to engage in public space. Yet there is also the danger of spontaneous distraction by classmates they see on the road (Ross, 2007), while they must remain focused on the traffic. In addition, "the story about giving priority to road users remains a recurring difficult aspect" (E. Hogenkamp, Personal communication, 2020). In principle, this growing independence (and *competences*) of children can also be seen as a matter of 'letting go' by parents. Father René also explains that in principle their eldest son can cycle the route alone because he usually already cycles a bit ahead to show that he can do it alone. This is in line with the VVN (n.d) image that children between the ages of 8 and 12 improve their skills and often participate in traffic (Van de Craats, 2019). This action could also be observed during the ride along with the Hogenkamp family, where the eldest son was practically ten meters in front of the family for the entire ride. "Moreover, at some point our children will no longer find it cool that mum or dad is still cycling to school. Of course, we as parents have to deal with that properly" (E. Hogenkamp, Personal communication, 2020). When this occurs, it is noteworthy that is breaks certain shared *meanings* within the family, with the child choosing to travel independently over the joint school journey.

The physical route that must be taken to school also makes a significant difference to the experience of the journey to school for parents and children (Faulkner et al., 2010; Giles-Corti et al., 2010). The physical environment is an important (*material*) factor for mother Debby, because a well-designed environment between home and school also creates safe routes. According to her, this combination can change a lot in the choice of parents for their children. However, she also describes that the back and forth school route can also be very different:

"The route on the way to school for walking or cycling is completely fine. The way back is actually not possible for children because there is much more danger there because as a pedestrian or cyclist you

are no longer separated from road traffic. I think that is why many parents easily take their child to school by car and invest less in other transport" (Personal communication, 2020).

Parents René and Eveline also experience a difference in (feeling of) safety during their school route: "Although most of the journey is in fact safe to do, there is the last crossing towards the school street which is a point of annoyance for many parents. This crossing over a busy access road makes it difficult for parents to let their children go to school independently" (see Appendix 7). Eveline is therefore a great proponent of installing traffic lights at this point: "A solution in which the traffic lights are only active at peak times in the morning and afternoon may well be a solution. Although conspicuous signs indicate that they are in a school zone (see figure 4.1), in our opinion many car drivers are not aware of this". Speaking from the parent's experiences of both families, the *materiality* consisting of the physical school route, is of great importance for experiencing and completing the journey to school.

Figure 4.1: The school sign (Photo: own fieldwork, 2020)

4.3 The arrival in the school environment

'As a researcher I can understand that as a parent you really feel a kind of rushed feeling when crossing the road. It certainly did not feel comfortable for me to have to cross this road during rush hour in the morning to get to the schoolyard. In total, this walk to school took about ten minutes. Around 08:20 am the four of us arrived at the schoolyard. The busy situation was noticeable. Pedestrians, cyclists and car drivers emerged from all the streets surrounding the school environment. The result was that the school environment became increasingly crowded. Despite all the hustle and bustle, Debby and I were able to walk up the school yard with the kids to the entrance of the school. At the door, Debby said goodbye to her daughters with a last kiss. Once the children had gone inside, the schoolyard was already a coming and going of parents with their children. Since this school also welcomes the fact that parents bring their children to the classroom, the bustle on this school morning was easy to explain here.' (Fieldnotes walk along, Poels family)

'The action currently taking place around this time is that of crossing parents and children between the two school buildings. The lower and upper classes are separate from each other, which is why you see many parents taking their children to both buildings. It is striking that there is no pedestrian crossing at this crossing place, only some marking on the road surface. As a result, there is a lot of communication with many gestures between crossing parents and the waiting motorists. Because of

this hectic atmosphere, the "giving your child a quick kiss" is currently happening all around us here. The journey to school ends with a central moment for the whole family, during which René and Eveline wish their children a nice day at school. Eveline also quickly gives her daughter a kiss before she lets her cross. She quickly takes her gym bag with her and then disappears inside with other children. I am told that the children are becoming more independent and that a kiss on the sidewalk is the last "permissible" at the moment. At the same time, their son and other daughter enter the other school building together.' (Fieldnotes ride along, Hogenkamp family)

After the preparations have been made at home and the journey to school has been completed, the arrival in the school environment follows. This environment is a space that is characterized due to the morning commute with a lot of traffic, parents and children. At the same time, an enormous influx starts in a short period of time, which generally causes a lot of stimuli and irritation for parents and children. This process is in line with Zukin's (1998) idea about conflicts between users of the same public space. During the observations during the walk and ride alongs, it was clearly visible that upon arrival in the school environment, parents keep their children close to them, whereby spaces were clearly claimed. As if the school environment turns into an archipelago of spatial enclaves (Hajer & Reijndorp, 2001). This caring attitude seemed to last until the schoolyard where the children were subsequently released in many cases. This matches with what the survey data indicates: as Table 4.1 shows, almost 60% of the respondents perceive the traffic situation around school as unsafe.

Question/Proposition	Categories	N	%
The traffic situation around the school is safe (N = 387)	Agree	70	18%
	Neutral	89	23%
	Disagree	228	59%
I am annoyed by (some) road users around the school building (N = 387)	Agree	232	60%
	Neutral	70	18%
	Disagree	85	22%
I see more people coming to school by car than by bicycle or on foot (N = 387)	Agree	167	43%
	Neutral	112	29%
	Disagree	108	28%
I experience bringing my child(ren) to school as a special moment of 'quality time' (N = 387)	Agree	309	80%
	Neutral	66	17%
	Disagree	12	3%
I like to bring and/or pick up my child(ren) to/from school (N = 387)	Agree	333	86%
	Neutral	35	9%
	Disagree	19	5%

Table 4.1: Survey results with parents' opinions (part 1)

Finding solutions for the busyness in the school environment is therefore a complicated task. Mother Debby explains: "No, there are certainly no solutions for the traffic in the school environment. People's routine behaviour still remains the same" (Personal communication, 2020). For example, what was visible in the school environment of De Waai (Cuijk) during the observation, was that a path has been closed that many parents and children used as a shorter route between a parking lot further away and the schoolyard. "For the rest, there was no other physical intervention here, while for a time parents were also fined (as a more social approach) if they were wrong parked with their car", according to mother Debby. Possible adjustments by parents in their behaviour is therefore not an issue, perhaps also due to their own deficient *competences*, so that the school journey cannot be carried out differently.

In contrast to this school, physical adjustments have been made to the school environment at De Speelhoeve (Wijchen). For example, "more logic has been brought into the street scene and various interventions such as raised thresholds and a small roundabout (which according to father René was really a 'must') have helped against the traffic", according to mother Eveline. Furthermore, parents René and Eveline would not change too much in the school environment. According to them, it is mainly the peak times in the morning and in the afternoon that will resolve themselves again as long as everyone remains patient. Such peak time was very visible during the observations because of the morning commute, while it was only in a time frame of half an hour (see figures 4.2 and 4.3). However, it is a story with two sides: "On the one hand, it is good that it is so narrow that people have to be careful and that few accidents happen. On the other hand, the slow flow does not really help people's moods" (R. Hogenkamp, Personal communication, 2020). What is striking about the above is that descriptions about the school environment are predominantly done from a physical point of view. The component of *material* really predominates in the discourse of parents.

Figure 4.2: Different crowds in the school environment (Wijchen) (Photos: own fieldwork, 2020)

Figure 4.3: Different crowds in the school environment (Cuijk) (Photos: own fieldwork, 2020)

What is also worth mentioning, is that the run-up to the schoolyard in particular causes a lot of confusion. For example, mother Debby indicates that the approach to the gate at her school is mixed by cyclists and pedestrians: "The behaviour of getting off by cyclists is hardly ever done and that makes sense, because it is just natural behaviour. Cyclists and pedestrians are brought into close contact with each other in a very small space, while the school environment seems so big" (Personal communication, 2020). This example of feeling annoyed by other road users around the school is shared in the survey results with 60% of all respondents (see Table 4.1). Father René also speaks of an unclear situation in Wijchen, in which groups of cyclists and pedestrians use the sidewalk together because the alternative is lacking: "In itself, the environment is no reason to leave your bike at home. However, we also know many parents who leave their bikes at home, because they argue that other parents also come by car. Then you unconsciously encourage each other to continue to go to school by car" (Personal communication, 2020). In this perspective, parents are 'teaching' each other a kind of shared *meaning* of how to go to school, making the car important. Table 4.1 shows that a majority of the respondents (43%) also indicate that they see more people are coming to the school environment by car. This problem is also recognized by mother Debby in Cuijk, where due to the large influx of cars, there is no longer an overview for parents of where they can go with their children and where you can let them go (see figure 4.4). "The frequent crossing of different traffic flows is therefore seen from a parents' point of view as an infrastructural failure", according to mother Debby.

Figure 4.4: Pedestrian crossing with a lot of traffic (Photo: own fieldwork, 2020)

However, despite the fact that in particular negative experiences and unsafe situations in the school environment are described by the interviewed parents, the journey to school in the previous stages appears to be more positive. According to the survey (see Table 4.1), parents like to bring their child to school (86%). In addition, the survey also suggests that a predominantly large number of parents (80%) also experience bringing their child to school in the morning as a moment of 'quality time' (see Table 4.1). As mentioned, this insight is therefore important for the parents' *meaning* of the journey to school (which LAD responds to).

Finally, it should be noted that the school's policy in which way children should be brought to school also occupies an important place in the behaviour of parents. The school of the children of the Hogenkamp family (De Speelhoeve, Wijchen) does not want the parents in the classroom at the start of the school day, because this makes it very restless for the teachers due to the large group of people in the classroom plus the longer-lasting bustle in the school environment. "We think it is good that it is said that children have to get used to their independence early", say René and Eveline (Personal communication, 2020). In their view, the difference in the philosophy of the school board (and therefore indirectly the *meaning* for parents of a school journey) can make quite a difference. Mother Debby fully agrees with this thought, also because it is customary at her school (De Waai, Cuijk) that parents bring their children into the classroom:

"It also has to do with school policies that encourage bringing your child into class. As a result, parents are used to doing this too, causing you to have routine behaviour. And then you do not stimulate the child's independence and traffic expertise. This also makes the dependence on parents very great for children. In addition, there is an important effect of this school policy, namely that the school environment remains very busy with traffic for a longer period of time because it takes longer for parents to bring their child in the classroom. The message from school is therefore a very important factor in how you let your child go to school" (Personal communication, 2020).

Moreover, the three interviewed parents also wonder why the combination between physical adaptation and behaviour cannot go together better. This may mean that there will be less costs associated with the school environment. "Then perhaps more traffic flows can be removed or children go to school independently sooner. Parents therefore notice that it is less or 'differently' busy. But perhaps this is also an unrealistic thought" (D. Poels, Personal communication, 2020).

4.4 Summarizing the findings

In short, you could argue that the journey to school is an activity that involves more things than previously thought. In the preparatory stage, the aspects of time and morning routines are certainly present within a family at home and these determine to a large extent how the school journey continues, according to a certain *meaning*. Children's *competences* appear to be very important for parents in determining the means of transport.

However, the second stage of the journey itself shows also the greater importance of *material* aspects for parents such as the infrastructure, the route and (other) means of transport. Letting your children go to school alone is possible, but parents regularly accompany their children to school. It is striking that conviviality is not necessarily the main reason for this, but being able to have supervision on the way to school in particular seems to be valuable for parents. The combination of independence and the child's level of *competences* is an essential point of attention for parents during the school journey.

The arrival in the school environment is experienced by parents as an adventurous activity where the feeling of ambiguity and unsafety predominates. Situations and experiences that emerge are mainly dominated from a *material* way of thinking. It seems that the physical space of the school environment and the school's policy largely influence whether people come by car, rather than the behaviour of the parent themselves.

In conclusion, it can therefore be stated per phase, of the home-school mobility, other components of the SPT are perceived as most important and therefore have the most influence during the school journey. In short, it could perhaps be said that the *materials* overrule the *meanings*. The parents' intentions are good, the importance is recognized, but as soon as the physical space of the school environment is considered unsafe, they choose otherwise.

In the next chapter, a link is made between the studied parents' practice and influencing behaviour by means of behavioural policy that is already being implemented within the school environment. On the basis of traffic experts, the situation is outlined about current developments with regard to human behaviour and how alternative approaches, with more attention to social nudging of people's behaviour, can contribute to this.

Chapter 5 – The school environment and behavioural policy

As became clear during the studied parents' practice in the previous chapter, the school environment is an important part for parents and children in the journey to school. What is actually being done nowadays to influence that parents' practice of bringing their child to school?

Nudging is a useful instrument for influencing human behaviour. Because over the years there appears to have been a lot of attention in traffic engineering for the physical design of the school environment, the public space around schools has often already been physically optimized. In terms of traffic engineering, not all problem situations can therefore be solved. In order to be able to bring about a difference in human behaviour, to reduce dangerous situations and irritations among parents, traffic experts are increasingly looking at alternative options. Applying a behavioural policy, in the form of social nudging, therefore seems to be an interesting option. As the conceptual model in chapter 2 indicates, the behavioural policy component therefore influences the factors that partly determine how the studied practice, in the perspective of morning commuting, is experienced and carried out by parents with their children. Therefore, this chapter is related to the second sub-question: *"To what extent does behavioural policy contribute to (the development of) the school environment?"*

On the basis of three traffic experts, the development of the school environment over the years is explained, including a step towards more attention to human behaviour and the initiative of LAD.

5.1 The development of the school environment

Going to school is a daily compulsory activity for all parents and their children. The physical environment between home and school plays a significant role for the journey to school in the morning (Faulkner et al., 2010; Giles-Corti et al., 2010). That is why the school environment is also a space that has an important value for several parties. School boards, traffic experts and parents with their children are examples of parties that are directly related to this space. According to traffic expert Bitter, the school environment can be characterized as a dynamic space that must always be developed in order to be able to anticipate the large flow of traffic that enters the environment in a very short period of time. The design of a school environment therefore has a lot of influence on the perception of various aspects by the users. One of the first things that became clear when collecting data for this part of the research, was that no school environment is the same. A school environment can differ in design, traffic facilities and neighbourhood (e.g. Sirard & Slater, 2008; Pooley et al., 2010). This matches Lefebvre's (1990) idea that every space is produced by and within a society of different people. "Therefore, a school environment cannot be designed with a 'one size fits all' blueprint. The design process of a school environment is therefore a task that must be widely shared from the start. You

have to involve different people and parties in the design process and explain how a certain point is reached, so that support can be created" (K. Gijsbrechts, Personal communication, 2019). In other words: the fact that several parties are involved in the realization of a school environment is very important for the use of this space by the users, although this integral process does not always take place in reality (Verkade & Brömmelstroet, 2020). Traffic expert Noij adds to this: "On the one hand there is relevance and awareness in relation to this process, on the other hand there is hardly any effect on outsiders that the school environment is not only important for traffic experts but also especially for parents as the users of this space".

The development of a pleasant school environment depends on several *material* aspects. First, it depends on the location of a school. In a new housing estate, you can take many things into account when developing a school environment and a lot can be redesigned. Examples include the construction of a school near a cycle path and the main entrance that is further away from the parking spaces, making it less attractive to come to the school environment by car. According to traffic expert Gijsbrechts, this means that an image and way of thinking can already be given to the school about how to deal with mobility. Secondly, a link with the infrastructure is essential here. The latter struck me during the observation of the LAD kick-offs in the municipality of 's-Hertogenbosch at the De Groote Wielen, De Hoven and Het IJzeren Kind schools, all located in a newly built neighbourhood, with targeted infrastructure (footpath, bicycle storage, parking spaces) that benefited all types of traffic. This is in contrast to an older residential area where a school is often located in the middle of the district and the redesign of the public space is much more difficult, because this positioning of schools used to be the overlying trend (C. Bitter, Personal communication, 2019). During the LAD kick-off, for example, it was good to observe that the L.W. Beekmanschool in the old center of 's-Hertogenbosch was located due to the relatively old infrastructure and limited space around the school that could not sufficiently cope with the influx of traffic.

Nowadays, school buildings are increasingly taking on a neighbourhood function. In addition to a school, a building has many more 'cross-pollinations' that take place in the educational and social fields. Then the question is whether you should set up the school environment as a user function or should you add other functions with associated facilities. A school environment is therefore not only part of the school, but also more of a social environment (Lefebvre, 1990). "Within a neighbourhood, the school environment should actually have a social function" (K. Gijsbrechts, Personal communication, 2019). This is recognized by traffic expert Bitter who adds that schools are now being established as child centers, where a village house function or a sports function is also combined. The result is that a school environment is used very differently. Not only during the start and end of school hours, but all other functions throughout the day. The schools visited in the municipality of 's-Hertogenbosch are at the same time also child centers, so that it became clear during the observations

that the school environments had also been designed in an integrated manner, with attention for water supplies and green elements in addition to traffic flows.

Moreover, "the ideal picture of a school environment naturally has a blueprint with bicycle storages, parking spaces or a kiss-and-ride, where parents can easily let their children out of the car close to school, that can certainly serve as a plus" (C. Bitter, Personal communication, 2019). This is in contrast to the idea that a kiss-and-ride acts more like a 'kick-and-ride where parents dump their children out of the car as quickly as possible with hasty behaviour that can create unsafe and dangerous situations (Verkade & te Brömmelstroet, 2020). Separate traffic flows are of great importance here. In addition, the human aspect is playing an increasingly important role in the design of the school environment. According to traffic expert Bitter, the adaptation of public space in the school environment can be adapted to a certain point and this process will stop at a certain point. Traffic expert Gijsbrechts adds that within traffic engineering it is noticed that behaviour can solve more than the traditional traffic engineering measures that are often used:

"The relationship between behavioural change and physical measures is expected to become more and more balanced. (…) In this way, the human factor is increasingly important in the design of public space. Because of this way of thinking, a revolution began to take place within our municipal organization from applying physical measures to the behaviour of people. You must have that realization; with each new development you must think with the human factor in mind. How is the feature used? And then always assume the wrong way in which it can be used. Then you come up with targeted solutions. Then you notice that issues concerning public space and traffic are more complicated than just applying civil interventions. There is needed a shift from policies focused on physical intervention to policies included with more subtle forms of behavioural change."

5.2 Use and behaviour

According to traffic expert Gijsbrechts, a school environment is often set up with facilities in accordance with existing traffic engineering characteristics and the infrastructure is technically correct. In addition to the design of a school environment, the users are just as important. "Although it may be thought that users use the space in the school environment on the right way as intended according to the design, in reality this is not the case. People are always looking for their own routes and ways to use the school environment. That is why the behavioural component has become so important" (P. Ubachs, Personal communication, 2020). Traffic expert Gijsbrechts indicates that you cannot make the use of public space, such as a school environment, happen from the drawing board but that you only notice how the design functions when people use it. At this point it can therefore be stated that the *meaning* that people give to the school environment has become more important again. He also adds:

"It is also often about the aesthetics that you make with a plan about the space, only through practical experience can you notice that your idea does not match the user behaviour of the people. As a designer, this must be taken into account more."

The behavioural component that has become important in the use of the school environment is difficult to influence. People often continue to entrust their own choices, which sometimes leaves little room for change. This corresponds to Kahnemann's 'endownment effect' where people are instantly more hesitant to give or change their travel choices (Vanderbilt, 2007). As a result, parents often continue to take their children to school in the same way. According to traffic expert Bitter, the hardest thing to change is the human motive. Despite certain plans, people still make their own choices, which also includes choosing a means of transport. In the past, this choice was not an issue, people mainly went to school by bicycle. In this perspective, the component of *material* used to play a less important role. "Nowadays you also speak of the 'backseat generation' (Karsten, 2005), because children are always taken to school by car" (E. Noij, Personal communication, 2019). Traffic expert Noij adds that this is also partly because the mentality has changed: "the feeling is that people are busier and that the children should be taken to school as soon as possible". This is an example that parents can also give little *meaning* to the school journey. According to traffic expert Bitter, parents therefore feel that they are obliged to bring their children to school. This matches with Gehl's (2006; 2011) thoughts about necessary use. As mentioned in chapter 2, this type of use includes necessary activities that are compulsory and where participation is requested (by parents). Moreover, it is often laziness that people are more likely to use the car than the bicycle resulting from their routines (Sheller, 2004; Faulkner et al., 2010). "If it later turns out that the bicycle facilities in the relevant school environment are not sufficient either, it is of course an easy choice for the parents to choose the car in the morning" (K. Gijsbrechts, Personal communication, 2019). This degree of school facilities also indicates the importance of *materials* on which parents can base their travel choices for the school journey.

In addition, to the fact that the traffic experts mainly notice that parents see bringing their child to school as a necessary activity, there is also social interaction between parents in the vicinity of the school. To a large extent, this refers to Gehl's (2011) social practice that occurs spontaneously in places where people share space at the same time, in this case the school environment. "However, according the opinion of traffic experts, this side effect is often not the main goal when parents take their child to school" (E. Noij, Personal communication, 2019).

Furthermore, many parents often have the choice of which means of transport is chosen and how it is used in the school environment. "Making the school environment diffuse by attracting as many cyclists and pedestrians as possible is an important goal in this respect", states traffic expert Gijsbrechts. He continues: "For example, a moderately sized car-related design is also being created

and users can mainly anticipate the environment themselves, resulting in a nice interaction". However, according to traffic expert Bitter, it should not be forgotten that each school also has its own customs with what parents are allowed in and outside the schoolyard during the drop-off and pick-up. She continues by stating that the way in which this drop-off and pick-up process takes place is therefore very location-dependent.

5.3 Perception of (un)safety

The aspect of safety and especially the feeling of this is an important issue for parents to determine how they go to school with their child. However, according to all three traffic experts, (traffic) safety is also a difficult concept to tackle. "The subjective safety of parents often differs from the objective safety and that is sometimes a difficult story to explain personally" (E. Noij, Personal communication, 2019). Traffic expert Noij adds that if something feels unsafe, it does not necessarily mean it is actually unsafe. With road safety in a school environment, things are often anticipated that are not yet relevant at all. "Often an unsafe situation has not yet occurred in reality, but there is a perception that the school environment is unsafe" (K. Gijsbrechts, Personal communication, 2019). This matches with Parusel & McLaren's (2010) research where they state the contrast between safety perception and the actual effect always an important aspect within the school environment is.

The visited schools in Cuijk and Wijchen both have a spacious school environment with busy situations. At De Waai (Cuijk) you immediately notice the large parking lot for cars and the relatively narrow access for cyclists and pedestrians. As a result, cars seem to dominate the field of vision and at the same time there seems to be a kind of 'clash' between different parents with their children who are by bicycle of on foot. The busy intersection, as mentioned in the previous chapter, creates an unsafe situation due to the large permanent influx of different users. Traffic jams during the morning commute are often visible (also during the observation), causing a great (and unsafe) pressure on the space at school. De Speelhoeve (Wijchen) lacks many parking facilities for cars. The school is located on two streets where parking is usually done on the side of the road. This ensures that the total school environment becomes less spacious and therefore more crowded. In the relatively narrow space, different incoming and outgoing traffic searches for the way to school or the school environment is abandoned. Cyclists and pedestrians gather on the large sidewalk in front of the school. Because the school consists of two buildings and many children have to go to the other side, this crossing can be described as an unsafe situation. Although it was thought to make this crossing attentive (by lines and conspicuously coloured posts), it was visible during the observation that little attentive driving behaviour by parents in cars was noticeable.

According to traffic expert Bitter, the complaint that it is 'dangerous around the school' is often caused by the parents who bring their child to school by car, thus perpetuating the vicious circle of

permanent crowds (of cars) as discussed in chapter 1. Paul Ubachs (Personal communication, 2020) therefore adds that it is not the danger that parents are at risk, but that the annoyance and irritation about incorrectly parked cars and other rapid actions predominate in the school environment. However, the daily reality remains that there are still often chaotic situations within school environments. "As a result, the feeling of unsafety does not diminish among parents and children who use this space" (E. Noij, Personal communication, 2019).

"For every situation in public space that is perceived as unsafe, the municipality is referred, while it is often safe as long as people behave accordingly", states traffic expert Bitter. All three traffic experts experience the idea that their influence as a municipality is simply very marginal. This is also recognized by traffic expert Noij (Personal communication, 2019):

"If you see that more than 90% of the accidents that happen are caused by human errors, that about 3% are a technical defect in the vehicle in question and that the other 5% is a shortcoming of the infrastructure, then we as traffic experts only 5% influence on public space (including safety), as it were."

However, referring to the above quote, this named 90% caused by human errors may also be caused by parents in the school environment becoming over-stimulated or lacking an overview because the existing layout of the public space is not correct. Traffic expert Gijsbrechts indicates that the difference in perception of safety also has to do with the age of the observer, the degree of risk acceptance and the amount of experience in traffic. "In addition, people also always practice risk perception. As long as someone thinks that nothing is happening, the same behaviour will continue to be displayed" (E. Noij, Personal communication, 2019).

In order to improve safety in the school environment, the municipality of 's-Hertogenbosch wants to divide public space, such as a school environment, less and less for user groups. That is why the concept of 'shared space' is also increasingly used. As a result, the municipality of 's-Hertogenbosch seems to be more sensitive to the ideas of Whyte (1980), in which interactions and behaviour of people influence the particular use (Hine, 2013). However, during the observations at schools in this municipality, there was still little evidence of this concept in the existing school environments. It mainly seemed that an attempt was made to separate traffic flows as much as possible. This in contrast to the municipality of Cuijk and Wijchen. "The magic word now seems to be 'shared space', but the tricky part is that making it subjectively more unsafe makes it objectively safer. Just try to explain that to parents in the school environment", states traffic expert Noij. Traffic expert Bitter is also not a fan of 'shared space' by indicating that there are also vulnerable target groups such as children and the elderly present in the school environment who are likely to not sufficiently understand this concept, resulting

in unsafe situations. Rather, in her opinion, there is generally a more important task for parents to ensure that their own child is made 'traffic proof' as much as possible, so that they are ready to participate in traffic. This will be a good sign for the development of conscious mobility for growing children (Carver et al., 2013), under the supervision of their parents, during their journey to school.

5.4 Summarizing the findings

In brief, it can be said that the school environment is a space that is always in full development and that is important to many people from multiple perspectives. Although the physical layout (as a *material* aspect) of this environment is always at the most relevant item, there seems to be a turning point. The school environment seems to be physically optimized, but (perceived) unsafe situations still persist. Although this degree of unsafety can differ per parents, this observation in the school environment makes it interesting to shift the focus to influencing (or 'manipulating') the behaviour of the users in this space. A more social approach seems to be able to solve the aspects of crowds, irritations and safety in a more targeted manner where there is more attention for a changing parents' *meaning* towards the journey to school. However, the biggest problem seems to be that this change is difficult to convey to the wider public.

In the next chapter, the initiative of LAD will be discussed as a case in which behavioural policy plays an important role in the application of the social nudging of parents and children in relation to their journey to school in the morning. The experiences and findings of the initiative from the perspective of parents and traffic experts will be explained into one analysis.

Chapter 6: Going to school with Lekker Anders Dag

As mentioned in the first chapter, LAD is developed by UBACHS/full contact. According to existing research by UBACHS/full contact, this initiative responds to several social-psychological principles. These principles form the basis for an effect of LAD on parents and children who go to school together during their journey. Behind the basis of LAD are four principles where parents and children can eventually identify themselves with. LAD tries to give the general school run a positive twist, so that all the habits of a family during the morning commute can be refreshed. Experiences and descriptions of parents and traffic engineers are linked to the LAD principles to discover to what extent these principles influence the reality of the journey to school. Therefore, this chapter is related to the third sub-question: *"To what extent does LAD affect the home-school mobility of parents and children?"* First, the origin of LAD will be explained, including the underlying reasons why the initiative was created.

6.1 The origin of LAD

As mentioned earlier in the introductory chapter, several schools have noticed in recent years that the growing traffic in the school environment causes many unsafe situations. This causes a lot of irritation and hurried behaviour in the morning among parents who bring their child to school. Within the municipality of Cuijk, there was also this persistent problem during the morning commute at the schools in Cuijk. The past years, the municipality and the schools have taken all sorts of measures, including infrastructural measures, to improve the traffic situation near the schools. However, without a conclusive result. Reason for the schools and the municipality of Cuijk to find a solution to this complex problem.

In 2017, the municipality of Cuijk thought it was time for the next step. Subsequently, the municipality contacted UBACHS/full contact. This consultancy firm is specialized in behavioural and mentality development. Another project devised by UBACHS/full contact is "De BeestenBende", which focuses on the development of environmental awareness among children by cleaning up litter so that animals are saved in the neighbourhood. This project had been active within Cuijk for a number of years, so the municipality knew what kind of consultancy firm they were dealing with. As a result, UBACHS/full contact has been asked to come up with an initiative that emphasizes the behaviour and mentality of parents who bring their child to school in the morning. It was established that no new emphasis was placed on physical measures only in the school environment. In this perspective, it became clear in SPT terms that the new initiative should pay particular attention to *meaning* of the school journey. As a result, the focus is not on the *material* side within the home-school mobility.

Because of this above, the idea of LAD subsequently arose and is therefore an initiative of cooperating schools and the municipality. In 2018, LAD was started as a pilot at various schools in Cuijk,

while the municipality of Wijchen was also added this year. As a relatively new initiative, LAD focuses on influencing behaviour which leads to mentality development among school visitors, so that consciously different choices can be made during the morning commute to school. With LAD, parents and children are challenged to do that special journey to school together on various ways time to time, giving their own *meaning* of the school journey a new impulse. The ultimate goal is the creation of a less crowded and safer school environment with less traffic and irritation among parents attending to school with their children. Following Cuijk and Wijchen, the municipality of 's-Hertogenbosch therefore also joined LAD in 2019, as has already become clear.

The main reason given by the three traffic experts why this task to devise a new behavioural initiative was given to UBACHS/full contact is that municipalities recognized that public space can continue to be changed, but that ultimately no change in behaviour will take place if parents themselves are not aware of their behaviour and the choices out there. As already mentioned in chapter 2, Panter et al. (2010) acknowledges that implementations in the environment alone will not be enough, there should also be an increased support from parents towards active and joint travel to school. "We can make the public space however we want, but in the end it all comes down to people's behaviour and awareness. It is true that once the school environment has its characteristics, whereby everyone can see that a school is located, then at some point the public space is finished and *it all comes down to behaviour*" (C. Bitter, Personal communication, 2019). The issue of busyness and irritation (and safety) in the school environment is thus tackled in a different, more social approach, which may lead to behavioural change among parents and children within the three municipalities. After all, according to traffic expert Bitter, the behavioural component is the most important thing a municipality should focus on, now and in the near future.

The main idea is that parents should not become aware of the bustle in the school environment at school. Thinking about bringing your child to school should be begin at home a few hours earlier. "The bit of awareness becomes different if it is thought about in advance. The LAD initiative has been started at various schools in the participating municipalities to break the habits of parents and children", states traffic expert Gijsbrechts. He adds that "it is important that parents and children give the journey to school a different value. Moreover, the available time is actually the least valid argument, because time is a matter of priority". According to traffic expert Bitter, it is therefore a strong point that parents and children can determine a school journey in a different way when it suits them. "LAD tries to touch the intrinsic motivation of families to also try to experience the journey to school differently, with more time for socializing and relaxation" (E. Noij, Personal communication, 2019). This corresponds to Vanderbilt's (2007) statement when you can actually feel something as a user, it is easier to change your behaviour in response to it.

In recent years, projects have taken place in the school environment in collaboration with schools that should also influence the behaviour of parents to encourage less car use (Larsen, Gilliland & Hess, 2012), such as "working with red and green thumbs at good and wrong parking behaviour. However, this method only works for the short term, because errors appear to be very repetitive" (E. Noij, Personal communication, 2019). Traffic expert Noij argues that parents are quick to defend or give an excuse for their behaviour, but at the same time this behaviour persists due to the lack of an alternative. "LAD is therefore not a one-off project related to traffic education, but must also be part of the DNA of the participating school" states traffic expert Gijsbrechts. His following quote summarizes this well:

"To be able to get the feeling of security by thinking more consciously about the journey to school. That is simply a new approach that we as a municipality cannot directly propose to parents. That is why Lekker Anders Dag is a great way to get to the parents' alarm clock. And thus, not only to make road safety, but also to make the living environment around the school calmer and more pleasant." (Personal communication, 2019)

In practice, it meant that schools in these participating municipalities were allowed to join LAD on a voluntary basis, as the municipalities approached and invited all schools to participate. In the past years, LAD has started festively at various schools with a kick-off to make parents and children feel actively involved immediately. "In order to keep the participants always engaged, a directed set of incentives is offered, spread over the year. Incentives that not only remind participants of their conscious choice for LAD, but also regularly (visibly) confirm them in that choice: 'I am not only a parent who cares about quality time with my child, but also a parent who helps to keep it pleasant around school'. This method thus follows the behavioural insight that people want to attune their behaviour to how they see themselves and are happy to confirm this to their environment" (P. Ubachs, Personal communication, 2020).

6.2 The principles behind LAD
Self-efficacy: giving the feeling of being able to make a difference

According to LAD-creator Paul Ubachs is the belief of an individual that he is able to take the actions required to achieve certain goals is self-efficacy (Bandura, 1997). It is crucial to understand the actual situation of the school environment and the reasons for the specific travel behaviour of parents and children. "The self-efficacy among parents in the school environment is often low; there is little feeling that one actually has influence. Therefore, the low self-efficacy has an effect on the willingness of parents to contribute to a change in the school environment where people work towards a space with

pleasant traffic without social irritation. This is an important mental challenge" (P. Ubachs, Personal communication, 2020). This is also confirmed by the survey, which shows that almost 40% of the total group of respondents do not feel that they can do something about the bustle around school during the morning commute, although half of the respondents do have this feeling (see Table 6.1). The clearly defined limits of LAD (their own journey from home to school) make the effect of individual behaviour visible and give parents the feeling that they can make a difference. Increasing parents' insight into everyone's own role and responsibility when it comes to a pleasant school and living environment is therefore an ideal goal of LAD. This is consistent with research of Van Vugt & Samuelson (1999) who state that people are more likely to exhibit certain behaviour, in areas like school environments, if they feel they can actually make a difference with their efforts.

Creating a different mentality among parents (and children) in combination with participating schools ensures a (better application) of different travel behaviour within the school environment. Responding to a change in mentality, behaviour change can be realized through this way only. "Because a new shared mentality leads to other (desirable) choices and subsequently to a change in displayed behaviour" (P. Ubachs, Personal communication, 2020).

Moreover, large-scale problems, for example in the field of mobility or the environment are often too abstract for people if they do not have clearly defined boundaries. According to Van Vugt (2009), projects that encourage friendly behaviour in the local environment are often much more successful, because the coherence between actions and results is easier to understand and this creates a strong sense of self-efficacy. LAD is such an initiative that encourages more conscious behaviour in the local environment where the home-school mobility takes place.

Question/Proposition	Categories	N	%
I have the feeling that I can do something about the bustle around the school at the time of bringing and/or picking up my child(ren) (N = 387)	Agree	193	50%
	Neutral	47	12%
	Disagree	147	38%
I experience social contact (with teachers, other parents, etc.) when I bring and/or pick up my child(ren) (N = 387)	Agree	290	75%
	Neutral	47	12%
	Disagree	50	13%
In the past months, have you considered bringing your child(ren) to school and/or picking it up in a different way? For example: different means of transport, different route (N = 387)	Yes	174	45%
	No	213	55%
If the answer to the previous question was 'yes', have you actually done this? (N = 174)	Yes	162	93%
	No	12	7%

Have you ever heard of LAD? (N = 162)	Yes	149	92%
	No	13	8%
Do you know what LAD is? (N = 149)	Yes	145	97%
	No	4	3%
If you (would) plan your own LAD, who will take the initiative? (N = 145)	Parents	87	60%
	Children	58	40%
Which LAD activities did you/your child(ren) participate in this year? (Kick-off at school) (N = 145)	Yes	99	68%
	No	46	32%

Table 6.1: Survey results with parents' opinions (part 2)

Altercasting: placing parents and children in a role

LAD applies the principle of altercasting and places parents in the role of someone who is consciously involved in school mobility. It is known in science that people often behave according to the role in which they are placed and this phenomenon is called altercasting (Terry & Hogg, 2000). "With LAD someone is placed in a role who consciously ensures that both parents and children have a pleasant journey from home to school. Participating parents also start to behave more as such, because they adapt to the role in which LAD places them" (P. Ubachs, Personal communication, 2020). LAD altercasts not only parents, but also their children. After all, children and their parents both make the journey to school special together in various ways.

Altercasting is a powerful tool to get people moving. Miller et al. (1975), for example, demonstrated that altercasting can be used to encourage school children to keep their classrooms clean. In their study, they told children during a period that they were very neat. When the behaviour of the children was looked at a later time, it turned out that the children actually threw their garbage on the floor less often.

Self-identity and commitment & consistency: changing the self-image and acting in line with that changing self-image

Altercasting not only has the effect of making people behave differently, but also causes their self-image to change. According to Paul Ubachs, "LAD encourages parents (and children), through the role in which they are placed, to realize the journey to school in other potential ways and to be aware of the bustle within the school environment. Not only does altercasting cause the self-image of parents (and children) to change. Even though the decision they make to register for LAD means that they will see themselves as persons with more consciousness about a pleasant school environment for everyone". Research of Hogg et al. (1995) complements this by stating that as parents (and children)

adapt to the role in which LAD places them, it is likely that they unconsciously adjust their self-identity (the image they have of themselves) and will see themselves as more traffic conscious.

"People like to act according to the principle of commitment and consistency. In other words: we want our behaviour to be consistent with our beliefs, attitudes, past behaviours and our self-image" (P. Ubachs, Personal communication, 2020). One of the reasons why people put so much effort into conforming to social norms and fashions is that they think others are keeping a close eye on what they are doing (Thaler & Sunstein, 2008, p. 73). This phenomenon that many people have to deal with is also called the 'spotlight effect' (Gilovich, Medvec & Savitsky, 2000).

When people exhibit behaviour that is inconsistent with their self-image, beliefs, attitudes, or previous behaviours, an unpleasant tension arises that we call cognitive dissonance (Abelson et al., 1968; Aronson et al., 1974). According to Paul Ubachs, people are unknowingly motivated to prevent this tension. They will therefore try to act as much as possible in line with their feelings, promises and behaviours. At this point, it can be concluded from the survey that almost half of the respondents (45%) in recent months have already considered bringing their child to school in a different way, without any prior knowledge of the LAD initiative (see Table 6.1). In fact, of this group of respondents who indeed considered this, a large majority (93%) actually carried it out (see Table 6.1). This result shows that this behaviour of people can function well for LAD and other initiatives where behavioural policy in the form of social nudging challenges people to make different choices. This also means that the moment someone sees ('defines') himself or herself as a conscious participant of LAD, he or she is more likely to display behaviour that is in line with this. In this way it is possible to prevent cognitive dissonance.

Moreover, when parents are members of LAD, there will be a change in their self-image. They will define themselves more as traffic conscious. Because children also act according to the principle of commitment and consistency, this means that even in the long term (and when they are no longer a member of LAD) they exhibit traffic-friendly behaviour and are consciously involved with home-school mobility.

Social evidence: changing the social norm

Parents (and children) who are members of LAD propagate a certain social norm to other parents and classmates. Paul Ubachs indicates that they show that it is normal to go to school in a different way than the car, to reduce the pressure in the school environment and to increase safety. Due to the striking attributes out of the LAD box from LAD members, they are clearly visible, so that their actions and behaviour stand out even more during their journey to school. As a result, it becomes more normal for the rest of parents and children who go to school to make their journey and school environment

more enjoyable with less traffic and social irritation. Moreover, the survey shows that as many as 75% of the total group of respondents do experience social contact when they bring their child to school in the morning (see Table 6.1). So, participating in an initiative like LAD will certainly be seen by others on their way to school. Ultimately, a clear example of a practice performed is often very important to willing people.

The above has to do with the fact that social influence has great power over people (Thaler & Sunstein, 2008). A basic category of social influence relates to group pressure. If you find it important what other people think of you, then you may participate to compete for the favours of the group (Thaler & Sunstein, 2008, p. 66-67). "Namely, people have a natural tendency to show their behaviour. We look at how others behave and conform to this. We call this the principle of social evidential value", according to Paul Ubachs. This matches with Cialdini (2009) who shows that if the majority behaves in a certain way, people (without thinking about it) start to see this as the norm and therefore as correct.

6.3 Bringing your child to school with LAD

Self-efficacy

As the name LAD says, it is simply different. According to traffic expert Bitter, this entails a whole new dynamic in introducing your children to the routine within a family and the route to the school environment. "The 'different' comes to the fore with the fact that everyone belongs, whatever means of transport you come to school. This influence of this initiative is considered particularly important", says traffic expert Bitter. "The frequently heard complaint from parents that it is dangerous around the schools is related to the feeling of unsafety. However, these same parents who bring their children by car cause the dangerous situations. Taking responsibility is often a step too far for many parents" (E. Noij, Personal communication, 2019).

According to traffic expert Bitter, it is possible that with the help of LAD, it can be realized that parents and children do have conscious choices in the morning: walking, cycling, or combining the car with a walking tour. Therefore, mother Debby indicates that especially special means of transport such as kick scooters or inline skates in turn stimulate many different reactions from other parents, so that you can really show that you can also come to school differently (Personal communication, 2020). This was certainly the case with the observation during the LAD kick-offs at the schools; parents gave many reactions to each other when choosing the means of transport for their children. However, on a critical note, this example of the use of different means of transport also has to do with the *competences* of not only the children, but also of the parents. Will parents manage to make things run smoothly at home in the morning to free up time for the journey to school? And when their children attend school

in a different way, parents need to master other aspects along the way, such as (more) patience and support.

Parents René and Eveline (Personal communication, 2020) add that their children really enjoy having that influence on how the family goes to school. The small-scale environment in which the effect of actions and self-efficacy grows better, which Van Vugt (2009) refers to, therefore also seems to be of value here. The use of the different *material* LAD gadgets, such as a flag or saddle cover, immediately gives the children that recognition.

Furthermore, traffic expert Bitter states that LAD ensures that the freedom is maintained for families and that there is always a free choice in how and when they go to school differently. Mother Debby is therefore happy that LAD has different moments of activities during the year, which rekindles the initiative. However, she also states: "For some parents it becomes routine, for some parents it remains incidental. A real reaction from many other parents in relation to LAD is currently often not yet necessary" (Personal communication, 2020). Parents René and Eveline therefore indicate that they do not experience direct influence themselves: "We put it on the agenda to cycle or go differently, but actually not with the idea that we thereby positively influence traffic density. I do not think the children actually realize that it also contributes positively to a pleasant school environment" (Personal communication, 2020).

Altercasting

"In fact, LAD is an interesting and good concept because the intrinsic motivation of my children is beautiful to see" (D. Poels, Personal communication, 2020). Mother Debby further indicates that the initiative motivates her children and thereby she and her husband are also positively involved. Subsequently, her children enjoy talking about the school journey, which makes it very appealing to them at the same time. Especially when your children get older, it is great if they can ask when the journey to school could be a bit more special. "Then the initiative in the morning or the previous evening could also come more from the children" (C. Bitter, Personal communication, 2019). From the number of surveyed parents who indicated that they also consider going to school differently, it becomes clear that parents and children both actively participate in the initiative for planning their own LAD with the family. Table 6.1 shows that parents (60%) and children (40%) feel involved in LAD and both allow themselves to be measured by the role of LAD participant in the perspective of taking the initiative for a day to go to school differently.

Parents René and Eveline indicate that the initiative has made them a little more aware as a family that they can actually leave the car at home those two days that they would normally go to school by car: "Although this has sometimes been done, it was not always conscious. And according to our children it is also funny and interesting to go to school really different sometimes, because you do

not do that often as a family" (Personal communication, 2020). The question raised by parents during the LAD kick-offs is also about how long this initiative will retain value. After the conducted interviews, it turned out that parents enjoyed taking on the role of a 'traffic-aware' parent for a while, but parents also doubted how long others would hold on to this momentum. The question is therefore to what extent parents and children continue to behave in accordance with the conscious role in which they have been placed (Terry & Hogg, 2000). And not only the changed behaviour per individual, but every year there is also a new cohort of parents and children who go to school. LAD must therefore be an ongoing initiative.

At this point the incentives, as mentioned by Paul Ubachs, (such as a scavenger hunt, special season days etc.) emerge throughout the year. The social approach is therefore that the LAD team physically visits each school about three times a year and in other (digital) ways contact is also sought with incentives during the year. This is in line with what is important for the children according to parents René and Eveline: "The personal communication of LAD by means of cards and other incentives aimed at the children, give our children a reminder that they have to go to school again and this really pushes them back into their role". However, that parents and children are really placed in a conscious role by LAD is perhaps a bit too optimistic:

"Mentality is a big aspect, but we can say that Lekker Anders Dag has set something in motion. I really think so, that people think more about how they go to school and pick up their children. It has been going on for a little over a year now and here and there you know that people are still working on it" (R. Hogenkamp, Personal communication, 2020).

Self-identity and commitment & consistency

"All effects around LAD are related to whether you have the parents involved in the 'LAD story' or not", according to mother Debby (Personal communication, 2020). She also thinks that all children enjoy going to school differently and that you quickly involve them in a different morning pattern. Parents should especially be involved by having a clear message with regard to the school environment. This message is mainly about taking a little longer before and during the school journey. Based on the personal taste of traffic expert Bitter, "this awareness that LAD brings is very strong". LAD has contributed to an increased awareness among our children, according to parents René and Eveline: "Now and then the children suddenly suggest that they want to go by kick scooter or on foot the next day. Moreover, we see more often an initiative with our middle daughter to go to school differently. But we believe this is more out of self-interest, because she does not like the bicycle very much" (Personal communication, 2020).

Changing the self-image and the associated actions naturally differs per parent. For a parent who has always been walking or cycling to school, a change could be to go to school with a different

group, for example. "This will be different for a parent who has in their routine that they always go to school by car, then a routine is really broken" (D. Poels, Personal communication, 2020). Therefore, mother Debby thinks that it depends on location to what extent the effect of LAD comes in. She knows that parents mainly go to school differently and that the initiative is alive again when the LAD team has visited again. Moreover, as noticed during the observations, the LAD kick-offs also bring a lot of new life to the initiative. This could be seen as a form of the 'spotlight effect' (Gilovich, Medvec, Savitsky, 2000), where all eyes are again focused on everything from LAD. According to parents René and Eveline, there is a contradiction in which their children still know and remember the concept of LAD for their feelings, even though the new effect of LAD has disappeared over time (Personal communication, 2020). This means that children try to display behaviour that they think is nice or good, which largely prevents cognitive dissonance (Abelson et al., 1968; Aronson et al., 1974). Although it may go too far to speak of mentality development among parents by LAD, parents René and Eveline do observe a different pattern:

"We think the effect of Lekker Anders Dag is somewhere between awareness and mentality. There is awareness and now we feel there is a tendency among several people to go to school differently by taking the bicycle or another means of transport instead of the car. That is not to say it is every day of the week, but we do see some movement happening. In general, we think that more and more parents are cycling to school with their children. One day you feel you see fewer cars than normal and that is a good sign for awareness" (Personal communication, 2020).

Social evidence

"By implementing LAD, as a municipality you can clearly show together with participating schools that you are working on the issue of the school environment and at the same time you can positively involve the parents. However, you should not make parents feel like they have to. Parents should especially include you in the social story, so that they can use their behaviour in a different way" (E. Noij, Personal communication, 2019). According to traffic expert Gijsbrechts, in a few years, people may start to wonder whether bringing your child to school by is still the right and responsible thing to do. This hopes for Cialdini's (2009) principle of social evidential value, in which the majority behaves in a certain way and convey this to other people. In this way you have to break through the chain of habits with your parents, resulting in a more enjoyable school environment. "Perhaps that could happen with LAD in 's-Hertogenbosch", states traffic expert Gijsbrechts. In Cuijk, where LAD has been active for two years now, the initiative is generally well known to parents. This can also be related to the outcome of the survey, where of the respondents who actually go to school with their child differently, slightly more

than 90% also heard about LAD (see Table 6.1). Subsequently, almost everyone of this group of respondents (97%) knows what this initiative actually entails (see Table 6.1).

Parents (including mother Debby) recognize each other when families come to school differently and the realization that this makes the journey to school more joyful seems to be recognized. Mother Debby adds to this point by arguing that there are also opportunities for the school in this area, although schools have certainly participated actively in setting up LAD: "The school must take more responsibility in communicating about pleasant traffic and participating in the initiative of LAD. Just a note with a positive approach why it is also difficult to do something about the school environment itself, but that together we can ensure that it becomes safer" (Personal communication, 2020).

LAD is therefore always introduced at schools with the mentioned real kick-off, which makes the initiative really a topic of conversation among parents. This was also clearly visible during the observations at the four schools in the municipality of 's-Hertogenbosch. The social desire among parents (and children) to register with LAD is therefore very great. The survey also confirms this because Table 6.1 shows that of the group of respondents who knows LAD, 68% also let their child participate in the relevant kick-off. According to traffic expert Noij, the social peer pressure (Thaler & Sunstein, 2008) is therefore very important: "Parents must therefore see that others do participate in LAD, which means that it will be felt to register as a parent with his or her child". According to traffic expert Bitter, the hopeful development that children and friends influence and encourage each other in which way they want to go to school is therefore a social aspect that belongs to LAD. Parents René and Eveline admit that they do have the feeling that several families come to school by bicycle, but they do not dare to say whether there is also a link here with any form of social peer pressure from LAD. The social influence (Thaler & Sunstein, 2008) can thus be expressed even more strongly. Mother Debby is very clear about this:

"I do not think there is any social peer pressure at all. I think most parents who already cycle are doing well. It is especially difficult to get those parents out of the car who have that as their own morning ritual. It is mainly that piece of awareness that is good to be stimulated in one way or another. Above all, you have to emphasize the benefits" (Personal communication, 2020).

Parents René and Eveline do point out that LAD has been passed on to parents and children in a very understandable way: "Because the beginning is still remembered by many parents, the initiative remained active for a longer period of time. However, after a year, LAD has faded a bit more into the background". Nevertheless, there is more recognition:

"When we arrive at school with our children on their kick scooters, other parents talk to us about LAD. Such conversations remain somewhat in your memory, but for the rest LAD is not necessarily a topic of conversation all the time. As a result, we think it is not too bad how many people are 'lit' by LAD" (Personal communication, 2020).

Moreover, the survey also showed that social peer pressure or the urge to prove towards other parents was not an important reason for the surveyed parents to register. From the total number of responses to this part of the survey (N = 145), the following reasons emerged to the question of "*what was the main reason for registering the family for LAD*?": "something different for once", "trying to make a difference", "more time together", "consciously dealing with the journey to school", "setting a good example", "a nice and good initiative" and "the initiative came from my child".

6.4 Summarizing the findings

Briefly, it should be clear that LAD is an initiative where behavioural policy in the form of social nudging of parents (and children) plays an important role during their journey to school. Although it seems that the socio-psychological principles mentioned behind the initiative are not fully reflected in reality, it can nevertheless be stated that there is a certain degree of belief among traffic experts and families that LAD contributes somewhat to the *meaning* of the journey to school that everyone can enjoy. LAD tries, as it were, to get into the heads of the people to introduce a new mindset. Going to school in a different way sometimes generally brings new dynamism to families from the intrinsic motivation of parents and children. However, although little attention is paid to *materials*, physical space continues to play an important role (or a 'starting point') for parents in their choices before and during the school journey. In addition, the (different) choices made must also be in good harmony with the *competences* that parents and children possess within a family.

In the next chapter, all the results described in this chapter and the previous chapters will be translated into a conclusion featuring the answer to the main question of this research.

Chapter 7 – Conclusion and discussion

The daily recurring morning routine of families in relation to home-school mobility, where the journey to school often ends in an unsafe school environment, is a relevant issue in our society. This research focused on the topic of the parents' practice of bringing their child to school. In order to address this topic, this research was conducted with the following question in mind: *"In what ways is the parents' practice of bringing their child to school influenced and experienced?"*.

In order to answer this question, data was collected in various ways: by participatory observing (two walk/ride alongs and four LAD-activities at schools), interviews (N=6) and a digital survey (N=387). The data resulted in an overall 'journey' describing the reality of the parents' practice of bring their child to school, the school environment in relation to behavioural policy and the LAD initiative as social approach, which was presented in the previous chapters (chapter 4, 5 and 6).

In this final chapter, those findings and results are translated into a conclusion, including an answer to the main question of this research. Subsequently, this chapter will discuss a critical reflection on the research process combined with recommendations for praxis and further research.

7.1 Conclusions for the studied practice

First of all, this research shows that home-school mobility is a very interesting and topical theme in relation to the journey to school. Traveling from home to school is a regular part of daily life for children and parents (Pooley et al., 2010). The studied parents' practice of bringing your child to school is a broad practice that is influenced by multiple aspects. The current reality is that within families there is a daily morning routine in which the children are brought to school and are often confronted with unsafe situations in the school environment. As became clear, the journey to school is an activity that involves more things than previously thought. Through the different stages of this journey during the morning commute, the studied practice is for parents not a generally one-sided activity. The SPT-model (Shove et al., 2012) is therefore used to further investigate this parents' practice.

As found by various researches (i.e. Faulkner et al., 2010; Parusel & McLaren, 2010; Larsen, Gilliland & Hess, 2012), the way in which the journey to school is interpreted by a family can be very different. The interviews and the survey have shown that bringing your child to school is an activity that every parent is engaged in, stressing or having a lot of fun with in his or her own way. It has been established that taking your child to school is generally seen as a necessary activity (Gehl, 2006; 2011), but that the social aspect of this activity is also recognized by more parents.

A family often uses a morning pattern because a process of several steps has to be followed (Ross, 2007; Pooley et al., 2010). That is why the journey to school begins at home, the stage of preparation. The aspects of time and routines are very important during the preparation process

within a family. This is related to a certain *meaning* that parents attach to the school journey. After time and routine, parents then mainly look at the own *competences* of their child (personal characteristics) to determine what means of transport will be used. The extent to which his or her child can handle traffic (Timperio, et al., 2006) largely influences the method of transport chosen for the journey to school.

During the journey itself, it shows that the *material* side acquire a greater importance for parents. The chosen route, the available infrastructure and the choice of which means of transport are all aspects that are important to parents within their decision-making process. Supervision (Ross, 2007) during the journey to school seems to be very valuable for parents. That is the main reason why parents accompany their children to school. It is striking that the social aspect of sociability/conviviality is less prominent here. The child's independence and *competences* are crucial points of attention for parents.

Concluding about the arrival in the school environment is that the physical space seems to be a starting point for parents. This *material* way of thinking is related to (perceived) unsafe situations and experiences. The layout of the physical space within the school environment and the school's policy on rules and habits regarding bringing your child largely influence whether people come by car, rather than the behaviour of the parent themselves. It is therefore interesting that the school environment is not always about danger around cars, but that is also often seems to be a clash between cycling and walking parents who often use the same space. However, according to the traffic experts, municipalities do have the feeling that they cannot physically optimize the school environment any further. There is a strong belief that there should be less focus on physical measures, but that (with a more social approach) more focused attention should be paid to influencing the behaviour of people in the school environment. From a certain point it *all comes down the behaviour* of parents. And when this behaviour changes, the school environment, and with it the journey to school, can be changed differently.

In order to influence the parents' school travel behaviour for the long term, more awareness has to be given to the social and mental aspect. A more social approach seems to be able to solve the aspects of crowds, irritations and safety in a more targeted manner where there is more attention for a changing parents' *meaning* towards the journey to school instead of the continuous focus on the *material*. From this point, parents (and children) can make more conscious travel behaviour choices for their journey to school. So, there is actually a kind of change going on in planning thinking that you cannot achieve the desired goal with the physical layout alone. But with this, the responsibility for the school environment is apparently also passed on to the parents: they are 'to blame' for being unsafe in first instance, not the municipality.

In relation to the home-school mobility of families, it can be stated that all SPT components have their own influence on the journey to school. However, it differs per stage which component is

most present and dominant for parents in relation to making choices and taking decisions. Returning to the question of whether going to school is a valuable or stressful journey, it can be concluded that the data obtained shows that is a combination of value and stress experienced by parents. On the one hand there is that feeling that bringing your child to school is a special and valuable moment. On the other hand, there are the chaotic and unpleasant situations experienced by parents during the school journey process (at home and in the school environment) that seem to belong to this parents' practice. It should be clear that the journey to school for parents with their children is certainly not only a displacement in space, but that there is much more to it.

7.1.1 LAD as a form of behavioural policy

The initiative of LAD served as the case for this study. LAD is an example of a social approach where social nudging plays an important role. LAD wants to take the grind out of the morning routine and emphasize the positive and valuable sides of the trip to school. The results also continue to show that parents continue to be annoyed and irritated by other people's behaviour in the school environment. Conflicting behaviour between users (Zukin, 1988) has therefore not disappeared quickly. The question is whether an initiative with a social approach such as LAD can reach so far that this annoyance and irritation among parents can actually be reduced. Most importantly on the one hand, LAD has a local effect in the participating schools. In the schools studied, there can be talk of an equivalent local effect, because the interviewees indicated that LAD has brought a new dynamic to schools, that parents and children more often use other vehicles than the car. Moreover, also the whole initiative of LAD still has a lot of recognition among parents.

On the other hand, what can be concluded from the parents' interviews is that there are also many parents who do not break through their daily patterns. However, this can also be explained by the fact that some parents already do not consider going to school in other ways, while some parents imply cannot do this due to, for example, lack of means of transport or their own shortcomings in terms of *competences*. What is certainly also a positive point is that the results also show that children do play a significant role in taking the initiative to go to school in a different way. As a result, children become involved with this topic early in their development and will increasingly incorporate LAD into their habitual behaviour over the years.

If we take some distance from LAD as a case, it is clear that social nudging to influence people's behaviour is a relatively new social approach. What a positive point is, is that an initiative such as LAD brings a lot of enthusiasm to teachers, parents and children at school. It seems like it really dawns on people that their own behaviour can be the key to a safer and calmer school environment and a more enjoyable journey to school. Nevertheless, it is also difficult to include as many parents as possible in the ideas of an initiative such as LAD where social nudging plays an important role. The fact remains

that people's behaviour is simply very difficult to control. Especially in the school environment, usage patterns and the parents' routine are very difficult to change. People are naturally less likely to adjust their behaviour because of adhering to routines and patterns, making pointing to the physical environment around the school an easy way out. There are simply several difficulties associated with influencing people's social behaviour. The initiative of LAD, in which an attempt is made to involve parents and to get families to think about the school journey at home and thus show other (desired) behaviour, is a unique concept in the field of safety projects at schools. In this case and after the gained insights, it also seems interesting for new initiatives to adopt a social approach in which social nudging plays a role. Influencing behaviour remains difficult to nudge in a social way, but it seems that it is no longer possible to continue to focus on the physical environment only by municipalities, schools and parents.

Looking at the conceptual model (as seen in figure 2.1), after the insights obtained, it can clearly be noted that the SPT components and behavioural policy (in the form of LAD) do influence the various designated aspects that jointly determine and compose the parents' practice of bringing their child to school.

7.2 Reflection and recommendations

A researcher in general should be reflexive of his own work (Herbert, 2000). Therefore, in this final paragraph, there will be given a reflection on the study itself and during the entire research process combined with recommendations for praxis and further research.

Personally, I strongly believe that the combination of qualitative and quantitative research has worked out well. The choice of multiple interviews, participating observations and a survey has yielded a large amount of data. The choice of interview three traffic experts gave me clear explanations about the school environment and the development of it with a shifting focus from physical measures to a behavioural approach (with LAD). Although the role of the school in this study has been disregarded in its entirety and the focus is mainly on the municipalities and the parents, it has become clear that the policy of schools has an important role in making their environment safer. For example, how are children supposed to be brought in the morning? Moreover, it influences the choices made by parents for the school journey during the morning commute. Follow-up research could pay more attention to the role of the school in the process of this studied practice. It can also be examined what other schools mainly do now. Is this also behavioural policy in the form of social nudging or will there be more focus on the physical element?

The interviews with parents showed me as a researcher that the journey to school is by no means just a displacement in space, but a whole process of weighing up and making choices. This research has only focused on the school journey during the morning commute. The afternoon, when

children are picked up from school, would be an interesting time frame for further research (also in relation to the use of the SPT components). Performing the walk and ride along was a completely new experience for me. Although contact with the selected families has consistently been good and they voluntarily agreed to participate, this form of actively participating observation was nevertheless a very adventurous experience. At the same time, this method was a useful introduction to interviewing the parents of both families. It may be questioned to what extent a walk/ride along is a suitable research method for understanding processes and choices made. We cannot really see what is going on behind the front door. My own presence has also been very influential for the eventual course of the walk/ride along. Both families were neatly prepared for my arrival and certain choices for the journey to school were made because an 'outsider' accompanied this journey. For example, the Hogenkamp family opted for the bicycle so that I could easily join the family. And the children of the Poels family walked along extra cheerfully and neatly and wore various LAD attributes around themselves. Chaotic families probably would not want me (as a researcher) in the house and during the school journey. As mother Debby may have indicated, "I am not the standard parent". Actually, the journey to school literally and figuratively changed for both families because I went along as a researcher.

Furthermore, the other participating observations provided me many insights. During the first few observations with LAD activities at schools I thought a lot about my own role as a (participating) observer. Because I was able to experience LAD activities in schools through my traineeship at UBACHS/full contact, I learned a lot from the development of this initiative. However, because I also had a functional role during these observations, it was sometimes difficult for me to stay focused. The choice to sometimes step out of my role as LAD team member to transfer to the role of researcher was sometimes difficult to implement. This is related to the fact that my role as a researcher during the research process has also been a bit double due to my employment at UBACHS/full contact. Because I learned everything up close about LAD during my traineeship, I was partly influenced by all the positive and enthusiastic stories surrounding the initiative. However, for this research I did try to constantly present a solid and objective picture with results from my data.

Zooming in on LAD has taught us that social nudging is a useful approach and form of behavioural policy as long as you get people moving towards desired behaviour. Zooming out, the question can be asked how long behavioural policy is tenable. Do social nudges have a worn off effect on people and how do you keep initiatives such as LAD alive with attractive incentives? It is important to note that changing behaviour is relevant for each individual, but that new parents and children come to school every year, so the initiative must also be ongoing. Future research in a few years' time could also focus on a survey specifically designed to further investigate the long-term effects of LAD.

One last note can be devoted to the present time. For follow-up research it is also interesting to investigate this parents' practice at the time of COVID-19. All fieldwork of this study was conducted when there was no pandemic yet. Nowadays parents are allowed to bring their children to the edge of the schoolyard. What further consequences does this policy have for the crowds and irritation among parents in the school environment? Now would be a good time for further research whether this policy would cause more or less nuisance. Because in conclusion, the parents' practice of bringing their child to school is definitely a topic that should not be ignored.

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