

“Where you grow up as a child matters”

A study on the factors that contribute to the development place attachment and a sense of place of children living in the neighbourhood Hoge Vucht



Master's Thesis Human Geography

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Preface

Dear all,

This master's thesis is the result of a half year of research on place attachment and child-friendly neighbourhoods, under the supervision of Dr. Martin van der Velde as a representative of the Radboud University Nijmegen. I have always been passionate about the relationship between the living environment and humans and how they get attached to a place. During this research, I gained insights into the concept of child-friendly neighbourhoods and the perspectives of people living in the Hoge Vucht. Writing this master thesis has been a dynamic process. I enjoyed writing this thesis, but at some points, I experienced some difficulties. Nevertheless, I am proud of the end result, of course this is not only a personal achievement. In the first place, I would like to thank all of the respondents for being so open and sharing their stories with me. Without this cooperation, I would not have been able to conduct this analysis. I do not come from this place myself, but because of their stories, I could understand the characteristics of this neighbourhood. I have broadened my knowledge about the neighbourhood Hoge Vucht and learned that a focus on child-friendliness can revive the transformation of a neighbourhood. Because "a neighbourhood that is good for children, is good for everybody".

As a student it's important to reflect about the experiences to develop new skills, new attitudes or new way of thinking. Writing this master's thesis has been a personal journey for me in the world of human geography. As a student of applied science (HBO) they always encouraged me to think on a practical way. This is in contrast with the academic approach of the university. For this reason, doing this master program was a tough challenge for me. Writing this master thesis was of great value and provided me with the opportunity to improve my academic skills. There is no doubt that writing a thesis requires hard work. Since I started my master's thesis I gained knowledge about different research methods, analysing academic literature and the concept of child-friendly neighbourhoods and place attachment. I learned that research is a systematic and stepwise procedure and to think critically. I sometimes struggled with narrowing down the research area. As a curious and analytical person, I have the tendency to collect as much data as possible, but sometimes this results in a less focused perspective.

I would also like to take this opportunity to thank some people who have been a great support for me during this process. Firstly, I would like to thank my supervisor Dr. Martin van der Velde for his excellent guidance and support during this process. It was always helpful to bat ideas about my research around you. I would also like to thank my internship organisation, SpaceValue for having me at the office and allowing me to participate in the project 'Verbeter Breda'. Special thanks to the director Marty van de Klundert for accepting me as an intern and for supervising this research. I would also like to thank the other colleagues for their help and suggestions during my internship. I also feel grateful for my friends, boyfriend and family who supported and always kept me motivated during this process. I am proud of the thesis that I wrote.

I hope you enjoy reading

Isa Bosmans,

Nijmegen, Juli 30 2022

Executive summary

In the last couple of years, there is a growing interest in the development of disadvantaged neighbourhoods in the Netherlands due to increasing segregation in Dutch cities (SCP, 2021). According to research done by the Dutch government, this growing segregation has a negative impact on the liveability of some neighbourhoods. In terms of possibilities in life, being born in a deprived neighbourhood has a detrimental effect on children's futures. The social and emotional health of a kid is impacted by the neighbourhood they grow up in (Rijksoverheid, 2021). Deprived neighbourhoods (also known as vulnerable neighbourhoods) are characterized by a larger number of residents without work, on a low income, or living on welfare (SCP, 2021). It appears too often that there are not enough investments being made in disadvantaged neighbourhoods, resulting in badly managed public spaces compared to other neighbourhoods. Besides that, we frequently tend to create cities and neighbourhoods from an adult perspective and neglect to include a child's perspective in the design of public spaces in neighbourhoods. What do kids value most in a public space and how do they experience their neighbourhood? Emphasizing the concept of 'child-friendly neighbourhoods' can be a valuable perspective to integrate the needs of children in their living environment to create inclusive, connected, safe, accessible, multi-functional, and liveable places for children. The main objective of this research is to gain an understanding of the factors that contribute to the development of place attachment and the sense of place of children living in the neighbourhood Hoge Vucht. Hoge Vucht is one of the 'vulnerable neighbourhoods' of the Netherlands and located in Breda North.

This research aims to get an understanding of the factors that contribute to the place attachment and sense of place of children living in the neighbourhood Hoge Vucht. As stated by Rubinstein & Parmelee place attachment can be defined as a set of feeling about a geographical location that emotionally binds a person to that place as a function of its role as a setting for experience (Rubinstein & Parmelee, 1992, p. 2). Existing theories related to child-friendly neighbourhoods and place attachment are used to formulate factors that contribute to the place attachment and sense of place of children living in the neighbourhood Hoge Vucht. These factors are safety and security, sense of belonging, greenspace, and playground and lastly social interaction. A qualitative analysis is conducted to get an in-depth understanding of the lived experiences of the children living in Hoge Vucht. Parents of children between the age of 0-12 years old and living in the neighbourhood Hoge Vucht have been interviewed to gather data.

The results of this research present that the factors safety and security, sense of belonging, playgrounds and green spaces and social interaction all influence the place attachment and sense of place of children living in Hoge Vucht. According to the study's findings, Hoge Vucht children's place attachment is most influenced by the variable safety and security. The caring attitude of respondents results in a need for a safe neighbourhood. The public safety as well as the traffic safety both play an important role in improving the safety level. The traffic safety is experienced as a threat for children playing outside by themselves. The public safety is negatively affected by the youth taking over public spaces in the neighbourhood. It can be concluded that a high safety level is an important condition to ensure the safety of children and is associated as top priority.

The findings of this research also emphasize the importance of public spaces such as playground and green spaces. This concerns the factors playgrounds and green spaces. The Hoge Vucht has a relatively high number of young children living here. For this reason it's important to have a enough public spaces designed for this population group. Additionally, Hoge Vucht is also a low-income neighbourhood and some inhabitants are very much dependent on the facilities in the neighbourhood. The respondents find it important that there are enough facilities for children to further develop their social skills and to fulfil their needs to explore and play with other children. Besides this, the respondent also stress the lack of playground that take into account all the age groups of children. Especially the play facilities for the youngest children are relatively dangerous and not accessible for this group.

The other factors sense of belonging and social interaction are closely linked to each other, based on the findings of this research. The respondents have different opinions about the social cohesion in the neighbourhood. Nevertheless, all respondents agree on the fact that a neighbourhood with a high social cohesion and social networks improves the liveability of the children. The research also highlights the importance of a high sense of belonging (and consistent relationships) since this improves the safety level in the neighbourhood. Lastly, the different kinds of cultural groups living in the neighbourhood sometimes creates a barrier for the social cohesion in the Hoge Vucht. Different ways of raising children and language barriers are often mentioned as barrier for the social interaction.

It can also be concluded that an area that has a positive influence on the development of place attachment for children, increases the degree of child-friendliness. Children feeling connected to a place can be seen as neighbourhood that is child-friendly and a good place for children to grow up. The advantages of doing this qualitative study make it an appropriate method for studying the elements that foster children's connection to their neighbourhood the Hoge Vucht. Nevertheless, this research still has its shortcomings and limitations. The most important limitation in the research sample and how this influences the external validity. External validity is related "with the question of whether the results of a study can be generalized beyond the specific research context" (Bryman, 2012, p.47). The larger the research sample, the more a researcher can generalize the results of this research. The research sample of this research included 10 respondents (parents living in the Hoge Vucht. The generalizability focuses on the extension of research findings and conclusions from a research conducted on a specific research sample to the population at large. It was sometimes difficult to find respondents. When the research sample included more respondents the external validity of this research was relatively higher.

Nevertheless, this research can be seen as one small part in the growing literature on child-friendly neighbourhoods and the place attachment and sense of place. This research provides new opportunities for further academic research and new possibilities. Future research could for instance investigate the significance of place attachments for children's well-being and how this is different for different kinds of age groups.

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1. Introduction

1.1 Problem definition and societal relevance

Emphasizing the concept of 'child-friendly neighbourhoods' can be a valuable perspective to rethink urban design and support policymakers and urban designers to create safe, liveable, and playful places for children and their caregivers. Jack emphasizes the role of the living environment of children in developing their place attachment. According to Jack, children develop their personal identity through their place attachment in their early years. During their childhood, young children develop (initially unconsciously) positive and negative associations with their surroundings and the place where they live (Jack, 2008). The quality of the living environment and the public spaces in a neighbourhood play an important role in the development of place attachment. According to Danenberg, children are largely influenced by the quality of public space for their emotional, cognitive, physical, and social development. Public spaces give children the opportunity to interact and to further develop their social skills (Danenberg, 2018).

In the last couple of years there is a growing interest in the development of disadvantaged neighbourhoods in the Netherlands due to increasing segregation in Dutch cities (SCP, 2021). The Netherlands Institute for Social Research claims that there are large contrasts in society between groups with high and low resources (work, income, education, social network, and health). Deprived neighbourhoods (also known as vulnerable neighbourhoods) are characterized by a larger number of residents without work, on a low income, or living on welfare (SCP, 2021). It appears too often that there are not enough investments being made in disadvantaged neighbourhoods, resulting in badly managed public spaces compared to other neighbourhoods (SCP, 2021). Growing up in a disadvantaged neighbourhood as a child can negatively affect their chances of success as adults. Researchers discovered that a child's local neighbourhood has a substantial impact on their life outcomes, and those results might be very different from those of children who live only a few kilometres away. In fact, according to their research, a child's neighbourhood has a bigger impact on future income than the community they eventually settle in as adults (Kramer, 2020). After decades of policy development for disadvantaged neighbourhoods, national attention has declined in recent years. Various studies carried out before the corona pandemic show that the social problems in these neighbourhoods have not diminished. The liveability is under pressure in these vulnerable neighbourhoods (SCP, 20221).

Besides that, we are living smaller and smaller and we attach less value to the size of our house. The importance of open spaces become more important, especially in less developed neighbourhoods. (Mehta & Bosson, 2009). It can be argued that high-quality public space is more important than ever before. The city center needs to transform into a comfortable and healthy 'place to be', instead of a 'place to buy'. It needs to function as a magnet where you want to be and want to stay because of the recreation facilities. According to urban sociologist Ray Oldenburg, we should emphasize the importance of 'third places'. Oldenburg states that a third place is a valuable place or refuge outside of one's home or working place, where people can meet up with friends, neighbours, co-workers, and even strangers regularly (Oldenburg, 1999 as cited in Mehta & Bosson, 2009). But are children seen as integral part of society and therefore involved full co-users of public space, or are they only allowed to use specifically designed play areas? According to geographer Helleman, municipality policies focus too much

on the creation of formal play areas such as playgrounds and sport fields. These fenced-off places are designed especially for children. As a result, playing has become an activity that takes place on a delimited area rather than making sure children can play everywhere in the neighbourhood (Helleman, 2021). Playing on sidewalks and in parks should also be safe enough in the neighbourhood. Additionally, more and more parents perceive outdoor play as a risky and dangerous activity, due to the increased automotive traffic (Karsten & Felder, 2016). The ambition to create healthy and liveable environments for residents should also include the rights of vulnerable groups such as children. We should not under-prioritize the needs of children during the planning phase of urban development (Danenberg, 2018).

According to Danenberg, using a child-friendly lens to develop or redevelop a public space, can support policymakers and urban practitioners to “envision safe, inclusive and resilient cities and human settlements for all, reinforcing both the right to the city and the right to childhood” (Danenberg et al., 2018, p.12). A child-friendly neighbourhood includes principles that are important for every citizen: space for sidewalks and bike lanes, safe and green public spaces that stimulate social interaction, and a sense of safety. Nevertheless, there is still not enough awareness of integrating the rights of children into the process of urban design. Riggio claims “In an inclusive, transparent, responsive system of governance, all citizens are given due consideration, regardless of age, ethnic origin, income, gender or ability” (Riggio, 2002, p.45). This illustrates the need for a change in the current decision-making process of urban policies. The decision-making process should transform into a more inclusive system in which we put the user of the city at the heart of the process.

Placemaking is a well-known phenomenon that has already been largely recognized in the world of urban development. According to Project for Public Spaces, placemaking contributes to a stronger connection between the people and the places they share. The main goal is to maximize shared value by reshaping the public realm in a collaborative sphere (Project for Public Spaces, 2018). City planning occurs in an open urban system that includes many individual and collective actors with diverse (and sometimes conflicting) interests and visions. Formulating a long-term strategy for resilient liveable cities that brings all stakeholders together is a rather complex task (Bibri et al., 2020). Nevertheless, we often tend to design the city from a perspective of an adult and forget to integrate a child's perspective in the process of placemaking. What do children prioritize in a public space and what are their needs in a living environment? Placemaking focused on developing child-friendly neighbourhoods, could play a crucial role in reshaping the urban strategy thinking and redesigning public places that are inclusive parts of the neighbourhood to improve the quality of life of all citizens.

1.1.1 The case Hoge Vucht Breda

In a number of areas in Dutch cities, liveability and safety are under pressure. The problems in these vulnerable neighbourhoods are getting worse and this has a negative effect on the quality of life of these inhabitants. Education, health, housing, and safety are important factors for the liveability. The Dutch government wants to tackle problems together with municipalities and their local partners and residents. With the National Programme Liveability and Safety, various ministries are investing in improving the liveability in these areas. For example, investments are being made in better public housing (€ 600 million), preventing youth crime (€ 82 million), and tackling poverty and debt (€ 20 million). 19 municipalities are involved in this program which leads to 20 different urban focus areas geographically spread through the Netherlands

(Rijksoverheid, 2022). One of the selected areas is Hoge Vucht, a vulnerable neighbourhood located in Breda North. Figure 1 shows all the vulnerable neighbourhoods in Breda, illustrated in the red category. The map of Breda (figure 2) shows that the area's Geeren-noord, Geeren-zuid and Wisselaar are part of the neighbourhood Hoge Vucht (Google Maps, 2022). For this reason the neighbourhood Hoge Vucht has been selected as research area. Within this research, I aim to gain an understanding of the perspectives of young families that influence their attitude towards the neighbourhood they are living in. The selected case for this research is Hoge Vucht and the main focus will be on how different factors influence the development of place attachment of children living in this neighbourhood. This master's thesis is conducted on behalf of the company 'SpaceValue' which is integrated into a project (called Verbeter Breda), to improve the living environment of the so-called 'vulnerable neighbourhoods' in Breda. Especially in those neighbourhoods, there is an urgent need to increase the quality of life of all children to create equal chances.

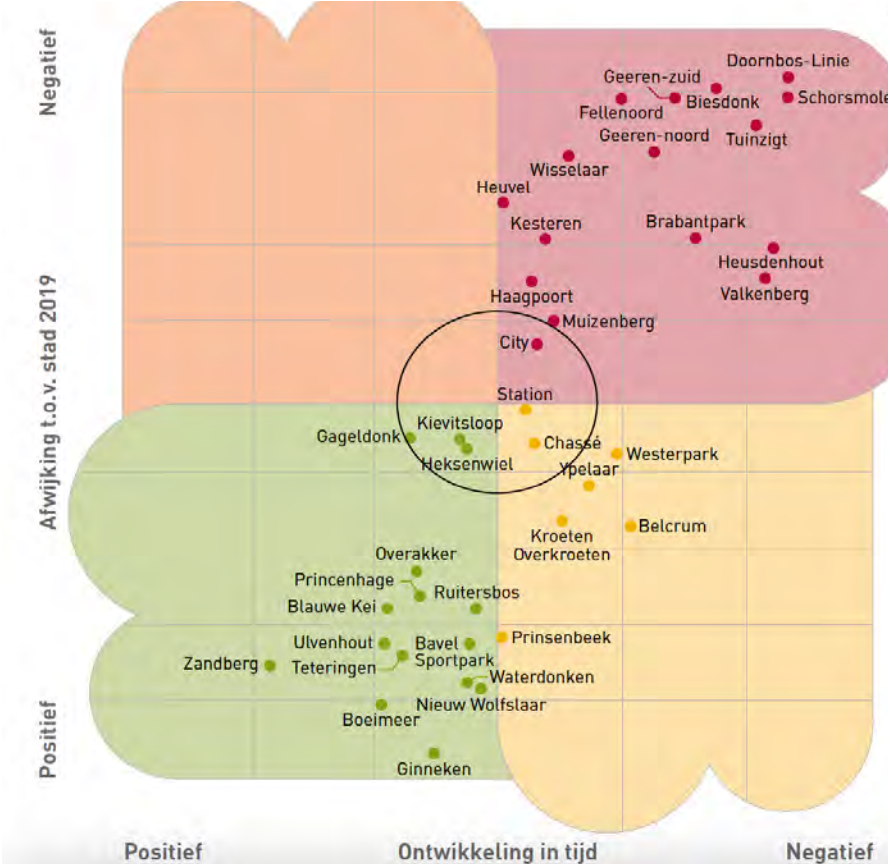


Figure 1: Vulnerable neighbourhoods Breda in red category (Rekenkamer Breda, 2021)

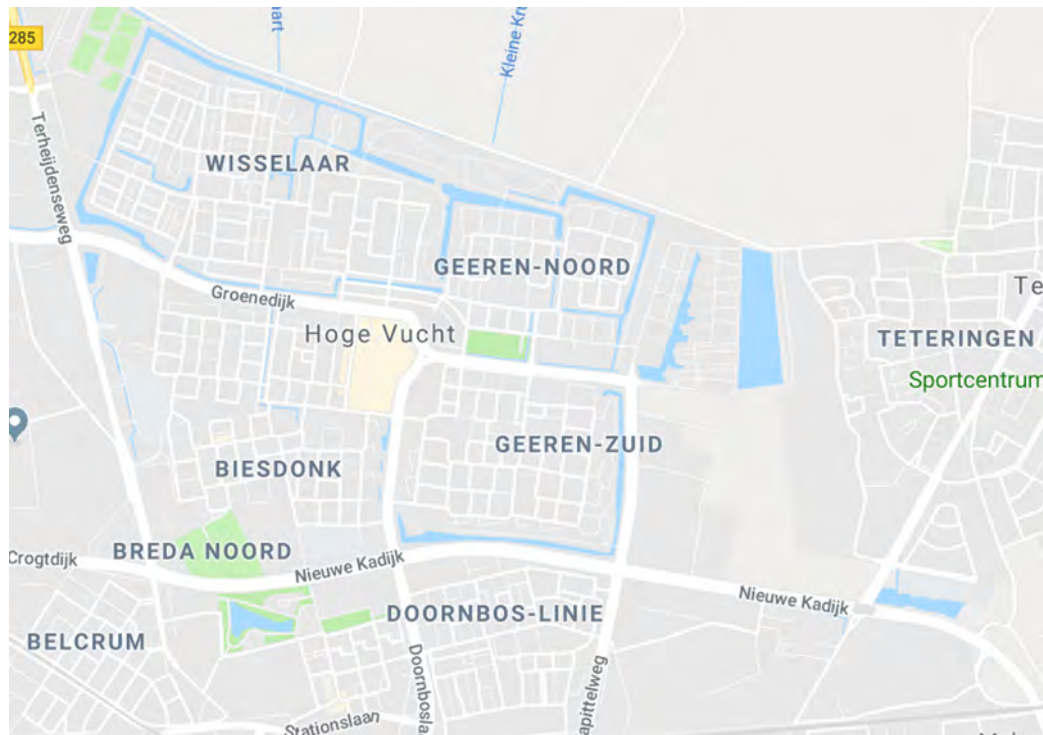


Figure 2: Hoge Vucht in Breda (Google Maps, 2022)

1.2 Scientific relevance

The concept of ‘child-friendly places’ has been of significant concern to scientists and is not a new topic in the scientific field. For this reason, this thesis will also build on existing literature that will function as a basis for this empirical research. Various scholars have researched the principles of child-friendly places and the opportunities to rethink urban design with vulnerable groups such as children in mind. All this research varies depending on different urban scales, such as city scale, neighbourhood scale, and national scale. In research from Brown et al. (2019), it becomes already clear that the concept of child-friendly places has been of significant concern to the scientific world. This research focuses on the city scale of living environments. According to Brown et. Al (2019), child-friendly cities are future-proof and are increasingly used as a "barometer for good local policies that increase liveability for all residents". In other words, said: If children are satisfied with the facilities in the city, the city can be seen as a caring city that improves the quality of life of all citizens. Enrique Peñalosa, former mayor of Bogotá also believes that "if children are satisfied with the facilitates in the city, the whole city is satisfied" (Donkers, 2021).

Consequently, this topic is relevant since reshaping urban strategy thinking is crucial for the future of cities and neighbourhoods. In the last decade, there is a growing interest in initiatives for child-friendly cities, also called ‘CFCs’ (Corsi, 2002). For instance, The City At Eye Level For Children emphasizes the value of children’s participation in city governance (Danenberget al., 2018). This project has been initiated to promote using a child-friendly lens in developing urban strategies. According to Sharif (member of the UN), "A child-friendly lens that create a public space can help city leaders, policymakers and urban practitioners envision safe, inclusive and resilient cities and human settlements for all, reinforcing both the right to the city and the right to childhood" (Danenberget al., 2018, p.12). The program includes methods and toolboxes for

participation design through the lens of placemaking. Action research that stimulates interaction with children and caregivers is central to this program.

Social scientist Jack has also highlights the importance of investigating how the attachment of place of children can influence their well-being. He elaborates on the concept of the 'shrinking world of childhood'. This concept states that children's independent access to their surroundings is becoming ever more restricted as a result of parental fears'' (Jack, 2008, p.755). The development of this trend has implications for the development of children's place attachment. Government policies should focus more on including strategies to create more child-friendly communities. According to Jack children are most attached to their home because of their young age. Home can be seen as the main source of play attachment. Nevertheless, when they leave primary school, children will start to realize their understanding of their geographical place in the wider world. They will start to explore parts of their local neighbourhood independently and together with adults or peers. The living environment should encourage children to play outside and should be safe (Jack, 2008).

As stated before, the chosen subject for this master's thesis is not a new topic in the scientific world. The added value to the existing literature is that this research focuses on the neighbourhood scale, specifically vulnerable neighbourhoods. Within this area of research, not much research focuses on the motives and factors of people living in vulnerable neighbourhoods, taking their attitude towards the public space of these groups into consideration. The factors that influence the place attachment of children in vulnerable neighbourhoods have not yet been clarified. For this research, the empiric insights will give an overview of factors that have a positive impact on the place attachment of children.

1.3 Research objective

As stated earlier, the main objective of this research is to gain an understanding of the factors that contribute to the development of place attachment and the sense of place of children living in the neighbourhood Hoge Vucht. It's important here to gain insight into the motives of young families living in vulnerable neighbourhoods in Breda, that influence their attitude towards the neighbourhood they are living in. The central focus of this project is to gain insights into the living environment and to evaluate these based on the theoretical framework. The main theories will be further explained in the theoretical framework. Especially in those vulnerable neighbourhoods, there is an urgent need to increase the quality of life of all children to create equal chances. This needs to be done by better integrating the needs of children into city policies. In other words, this research aims to investigate the possibilities of creating inclusive, safe, resilient, and sustainable human settlements by investigating factors that enhance the place attachment of children living in Hoge Vucht. This research objective has led to one central research question with three sub-questions, which are presented in the next paragraph.

1.4 Research questions

To conduct this research, the following main research question will be applied to conduct this research: *"Which factors contribute to the development of a positive place attachment and sense of place of children living in the neighbourhood Hoge Vucht and why?"*

Three sub-questions have been formulated to answer the research question in an organised way. These are important because they provide the core structure of the main research question and make the topic measurable. The following research sub-questions have been formulated according to the main research question. First, it is useful to gain insight into the current attitude of the parents that will be interviewed. For this reason, the current living situation of parents with a child between the age of 0-12 years old will be studied. This question aims to capture the children's perspective and lived experience in the public spaces in the neighbourhood Hoge Vucht. This will be researched by answering the following sub-question:

1. *“What’s the current attitude of the parents towards the neighbourhood Hoge Vucht focusing on the liveability of their child?”*

Secondly, the presence (or absence) of a feeling of place attachment to the neighbourhood Hoge Vucht will be researched. For this question, it will also be important to positive and negative aspects in the neighbourhood. The following sub-question will be used to provide insight into this topic:

2. *“What aspects in the living environment in Hoge Vucht influence (both negatively as well as positively) the sense of place and the place attachment of children and why?”*

The first two sub-questions will be used to identify the neighbourhood influences on children living in Hoge Vucht. For the third sub-question, the data will be interpreted based on the theoretical framework. The perspectives of the parents living in Hoge Vucht will be analysed by using the theory. The theoretical framework will provide an overview of factors that enhance the place attachment of children. The chapter that follows will elaborate on this theoretical concept and the related academic literature that this thesis is built on. The following question has been formulated:

3. *“To what extent does place attachment influence the child-friendliness in the Hoge Vucht and why?”*

1.5 Reading guide

This chapter introduces the background and the orientation of this research. In the following chapter, the theoretical framework will be described. The theoretical framework is the foundational review of the existing theories related to child friendly neighbourhoods. The conceptual model represents the researcher's synthesis of the literature on child-friendly neighbourhoods and concepts of places. The third chapter aims to reveal the main methodological background of the research and illustrates the research design. It will become clear how the data is collected and how the data analysis is carried out in order to answer the research question. Having argued in the previous chapter about how this research is done, chapter 4 provides insight into the findings of this research. First, the interview results are presented. The answers to the research questions and the three sub-questions are formulated in the concluding part of this chapter. These insights are used to analyse the data (chapter 5). Chapter 6 is the concluding chapter of this master's thesis and gives a summary of the main results and present the answers to the research question established in the introduction of this thesis. The overall reflection on how the data process and data analysis were conducted and how this could be improved for further research are also included in this research as well as the recommendations for further research.

2. Theoretical framework

There's a growing awareness of emphasizing children's values in geographical research. The following chapter will elaborate on the theoretical framework of this study. The first part will give insights into the developments that increased the need for a greater presence for children in urban planning research. The second part of this theoretical framework contextualizes the concept of place attachment and sense of place, based on the different visions of theorists. The factors that enhance a positive development of place attachment will follow after this part. The operationalisation of concepts such as vulnerable neighbourhood and liveability are also included in this chapter, to turn these abstract concepts into measurable indicators.

2.1 Deprived / vulnerable neighbourhood

Growing liveability disparity between neighbourhoods

In contrast to most neighbourhoods in the Netherlands, the quality of life in several areas in Dutch cities the liveability has worsened. Recent studies from the Leefbaarometer show that the liveability continues to improve in the Netherlands but not in vulnerable neighbourhoods. The Leefbaarometer is a measuring instrument of the Dutch Government that provides socio-demographical information about the liveability of all neighbourhoods in the Netherlands. Liveability is defined as the extent to which the living environment meets the conditions and needs that inhabitants have in an area. To visualize the concept liveability, 100 indicators are used, divided into 5 different dimensions in the Leefbaarometer. These 5 dimensions are housing stock, physical living environment, amenities/facilities, social cohesion, and nuisance/insecurity (Leefbaarometer, 2002). Research of the Leefbaarometer shows that relatively more Dutch people rate their living environment as good or even as excellent. The group that rates their living environment as poor or insufficient is becoming smaller. In contrast to this positive development, some vulnerable neighbourhoods are under pressure due to a decreased level of liveability. Some neighbourhoods are falling when behind compared to more liveable neighbourhoods. Figure 3 shows that in areas with a 'very insufficient score' on the liveability index, the problems that are persistent and there is a consistently insufficient level of liveability. The areas that score 'insufficient' or lower have made little or no progress in terms of liveability. The gap between vulnerable and liveable neighbourhoods keeps growing, in terms of access to resources such as work, income, education, social network and health (Rijksoverheid, 2022).

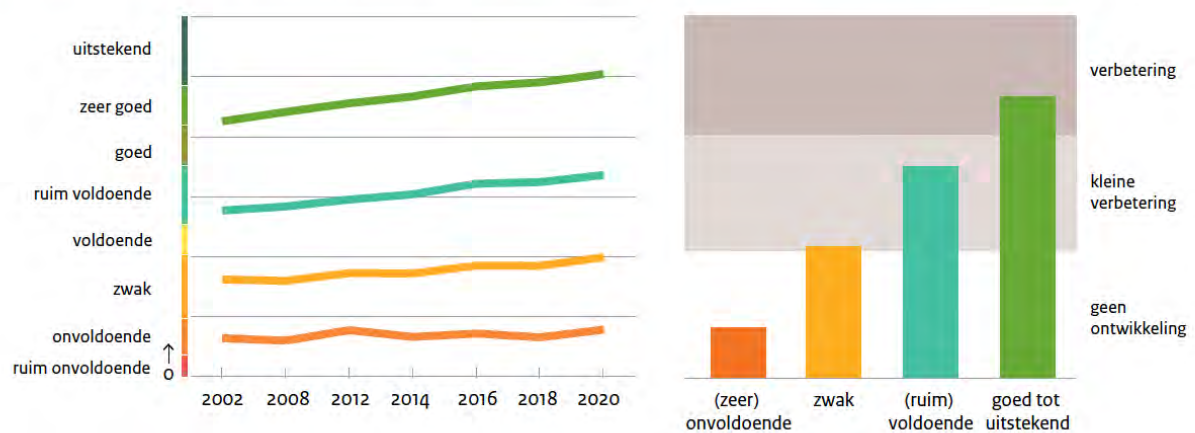


Figure 3: Development score Leefbaarometer 2002-2020 (Rijksoverheid, 2022)

Deteriorated liveability and safety in vulnerable neighbourhoods have multiple causes. Platform317's research shows the causes are the combination of the economic crisis of the previous decade, decentralizations such as the Participation Act (Participatiewet), and the changes in the social domain due to systematic changes in public housing (Woningwet 2015) (Rijksoverheid, 2022). The government needed to prevent the quality of life in vulnerable neighbourhoods from deteriorating further. For this reason, the Dutch government announced the National Programme Liveability and safety in 2022, which aims to invest in deprived neighbourhoods to improve the quality of life. For example, investments are being made in better public housing (€ 600 million), preventing youth crime (€ 82 million), and tackling poverty and debt (€ 20 million). 19 municipalities are involved in this program and 20 different urban focus areas have been selected (Rijksoverheid, 2022).

The geographical scope of this research is Hoge Vucht in Breda north, which is one of the 'deprived neighbourhoods' in the Netherlands. To make clear what is exactly meant by the term 'deprived neighbourhood' the definition is explained. This gives an understanding of the concept of 'deprived neighbourhood' and the contextual information that will be discussed throughout this thesis. The Statistics Netherlands (Centraal Bureau Voor Statistiek) states that there are "A total of 40 deprived neighbourhoods in 18 Dutch municipalities in which, as a result of a large cumulative number of problems, the quality of the residential environment is significantly worse than in other urban neighbourhoods. The deprived neighbourhoods are all located in cities that fall under the Dutch government's official urban policy" (CBS, 2016). The term deprived neighbourhood has also been discussed by various scholars: "A deprived neighbourhood is defined here as a geographically bounded area with a high proportion of adults with low SES (socio-economic status), as characterised by indicators such as unemployment, low income, low education, and low-paying jobs" (Algren et al., 2015, p.2). To make this definition measurable, the 'Index of Multiple Deprivation (IMD) is a measure to distinct dimensions of deprivation. The 7 dimensions are income deprivation, employment deprivation, health deprivation, education/skill/training deprivation, barriers to housing and services, living environment deprivation, and crime (Shaw et al., 2022). Over the last few years, there has been attention to changing the word 'deprived neighbourhoods'. Disadvantaged neighbourhoods, deprived neighbourhoods or problem areas were generally used to refer to those areas that needed extra attention. Nevertheless, the stigmatisation negatively influences self-confidence and attachment to the neighbourhood. In order to avoid any stigmatisation in the future, the aim of the Netherlands Institute for Social Research (Sociaal Cultureel Planbureau) used the term 'vulnerable neighbourhoods' (SCP, 2021). For this thesis, the term 'vulnerable neighbourhood' will be used.

Children growing up in a vulnerable neighbourhood

Researchers discovered that a child's local neighbourhood has a substantial impact on their life outcomes, and those results might be very different from those of children who live only a few kilometres away. In fact, according to their research, a child's neighbourhood has a bigger impact on future income than the community they eventually settle in as adults (Kramer, 2020). The Netherlands Institute for Social Research (SCP) claims that there are large contrasts in society between groups with high and low resources (work, income, education, social network, and health). Studies carried out by the Dutch Government indeed show that there is a growing concern about the inequality of opportunity in Dutch cities especially, for children. Being born in a vulnerable neighbourhood has a negative impact on the rest of children's lives in terms of

opportunities in life. The neighbourhood that a child grows up in impacts the social and emotional well-being of a child (Rijksoverheid, 2021). The National Programme Liveability and safety focuses on three objectives. First of all, this program aims to improve the physical living environment. This results in investing in more high-quality housing in a safe and liveable neighbourhood. The second objective focuses on offering a bettering perspective to enable children to develop their talents. The last objective is formulated to increase the security level in vulnerable neighbourhoods. It must be prevented that young children in vulnerable positions get involved in criminal activities (Rijksoverheid, 2022).

2.2 Need for implementing child friendly perspective in urban planning

Growing liveability disparity between neighbourhoods

It can be concluded that there is more attention for the growing disparity between neighbourhoods in the Netherlands and an urgent need for policy improvement especially for vulnerable neighbourhoods. Next to this change, there has also been a growing interest in emphasizing the importance of child-friendly environments in the last decades. The concept of child-friendly cities can be traced back to the 1989 United Nations Convention on the Rights of the Child (UNCRC), which states that children should have the right to express themselves so children can develop themselves as healthy as possible. Since 1989 political world leaders made a historic commitment to all children on a global scale, by adopting the United Nations Convention on the Rights of the Child. In 1996 Unicef and UN-Habitat launched the 'Child-friendly Initiative' (CFCI). According to Unicef (2019), a city, town, community, or any system of local governance should be committed to improving the lives of children. In other words: the voices, needs, priorities, and rights of children are an integral part of public policies, programs, and decisions. It's well known that city planning occurs in an open urban system that includes many individual and collective actors with diverse (and sometimes conflicting) interests and visions. Therefore, formulating a long-term strategy for resilient liveable cities that brings all stakeholders together is a rather complex task (Bibri et al., 2020). Biggs & Carr (2015) are stressing the lack of attention for children in the development of urban policies. They claim "If urban spaces are designed with certain groups in mind, principally adults of working age, either as producers or as consumers, then the question arises, how far are other groups taken into account, in terms of inclusion or separation and their importance to the main project of urban life" (Biggs & Carr, 2015, p.2).

Despite this complex challenge, Alamdari and Habib (2012) emphasize the importance of taking action and designing neighbourhoods that meet the needs of children and improve the living environment. In research from Alamdari and Habib (2012) children are considered a 'vulnerable group' that is still rather underappreciated in urban design. Alamdari and Habib claim that there is little knowledge about this vulnerable group and their different ways of enjoying public space and how this is influenced by the factor of age. Adults, consciously or unconsciously, develop places based on meeting their everyday needs. One of the basic needs of children is playing. Especially in vulnerable neighbourhoods with a poor living environment, there is not enough attention for children to participate and fulfil their needs (Alamdari & Habib, 2012). Riggio further emphasizes the importance of the concept 'child friendliness' and states that "the concept of "child-friendly cities" has been developed to ensure that city governments consistently make decisions in the best interests of children and that cities are places where children's rights to a healthy, caring, protective, educative, stimulating, non-discriminating, inclusive, culturally rich environment are addressed" (Riggio, 2002, p.45). According to Riggio,

young citizens should have the right to influence decisions about their city and express their opinion on the city.

Child-friendliness as barometer for good local policies

Child-friendliness is not only in the interest of children, according to various scholars the perspective of children can revive the transformation of areas. According to Brown et al. (2009) child-friendly cities can be seen as "the barometer for good local policies that increase liveability for all residents" (Brown et al., 2019). In research from Brown et al. (2019), it becomes clear that the concept of child-friendly places has been of significant concern to the scientific world. Children can be seen as indicator species; if children are satisfied with the facilities in the city, the city can be seen as a caring city that improves the quality of life of all citizens. Enrique Peñalosa, former mayor of Bogotá also believes that "if children are satisfied with the facilities in the city, the whole city is satisfied" (Donkers, 2021). Thornton also claims that planners are starting to recognize the benefits and added value of putting children's welfare at the centre of the urban design process. He believes that "child-friendly policies can have long-term social benefits and environmental benefits" (Thornton, 2020, p.1). Policies that are child-friendly are beneficial for inhabitants as well as the environment. For instance, the need for more cycling and pedestrian-friendly areas designed for children results in more sustainable transportation networks. The networks are essential to minimizing carbon emissions and air pollution. Another example is the green environment that is beneficial for the environment as well as children. A lower risk of acquiring psychiatric problems and greater mental health have been associated with access to green place (Thornton, 2020).

2.3 Sense of place

The studies above have shown that there's an urgency to integrate children's priorities into public policies. A large number of existing studies in the broader literature have examined the definition of a 'child-friendly city' (in this research a child-friendly neighbourhood). The concept 'sense of place' can be seen as a crucial concept when researching child-friendly neighbourhoods. The emotional relationship between people and places determines how children experience a place. Relph's theory on the concept of place (1976), states that a sense of place comes from a feeling of connectedness (in a physical, emotional, or spiritual way) to a particular geographic area. Children's social and emotional foundations are built via geographic experiences that support them to develop of sense of place (Relph, 1976). In research by Hashemnezhad et al. (2013) sense of place is defined as "a complex concept of emotion and attachment to the human environment which is created from people's adoption and use of places" (Hashemnezhad et al., 2013, p.7). Hashemnezhad et al. (2013) emphasize that this concept is two-sided. On the one hand, the sense of place is affected by subjective experiences of people, such as memories, traditions, history, culture, and society. The other side of the concept illustrates the objective and external influences of the environment that create a certain association of a place, for instance, landscape, smell, and sound. Steel (1981) has provided a deeper understanding of factors that influence the sense of place by dividing the factors into two categories: cognitive and perceptual factors and physical characteristics of a place. People create different senses of place, depending on their intellectual background, personal motivations, experiences, and the characteristics of the environment (Steel, 1981). For this reason, in the last 25 years, there is an increasing awareness to investigate the social effects of places of urban design as well as a sense of place for various vulnerable groups in society, such as the elderly, homeless people, and children (Hashemnezhad et al., 2013). Some

authors have driven the further development of implementing children's perception of place in the framework of urban planning. Researchers of developmental psychology believe that children and youth experience places and space differently compared to adults. Children play a lot of the time in the outdoor environment, compared to adults (Nordström, 1990).

Gandy further elaborates on this and states that children develop their sense of place during early childhood. Their curiosity to understand the world around them with their senses explains their explorative perspective. Scientist Björklid (2012) further explains that children can be characterized as a group with a sense-oriented attachment to the physical environment they are living in. In addition, they have a strong physical interest in the environment and their orientation to the world is strongly influenced by sense impressions (Björklid & Nordström, 2012).

2.4 Place attachment

Next to sense of place, the concept of place attachment is also important to express the meaning that is attached to a spatial setting by humans. According to Rubinstein & Parmelee place attachment can be defined as: "a set of feeling about a geographical location that emotionally binds a person to that place as a function of its role as a setting for experience" (Rubinstein & Parmelee, 1992, p. 2). According to Spencer & Wooley (2000), children gain their personal identity through their place attachment. Jack further emphasizes that positive cognitions linked to a specific place have an influence on the place attachment of children at a very young age: "From a very young age, children develop (initially unconsciously) positive and negative feelings about their everyday surroundings. Place attachment depends on developing clusters of positive cognitions linked to the meaning of specific places" (Jack, 2008, p.758).

2.5 Factors stimulating place attachment and sense of place

Over time, an extensive literature has been developed on how what makes a neighbourhood liveable for children. This section presents a review of recent literature on the factors that contribute to a positive place attachment and sense of place. How can the sense of place of children be influenced by these factors?

1. Sense of belonging

According to Epstein, developing a sense of place is associated with the degree of a sense of belonging. Epstein claims that when children feel accepted as a member of a group, their overall social and emotional development will improve (Epstein, 2009). An important point to make here is the distinction between 'place' and 'space'. Cresswell (2014) emphasizes that space is characterized as a location, while the place is the concept human geographers use to define the attachment of human beings to specific locations. Riggio also claims that a child should be able to participate in family, community, and social life. Various basic services are therefore crucial for young children. For instance, access to basic services such as health care, education, and shelter. These basic services also include safe sidewalk lanes and green spaces to play and interact with other children. Riggio also emphasizes the importance of equality. Every citizen should be able to have access to every service, regardless of ethnicity or religion, income, gender, or disability (Riggio, 2002, p.48). Lastly, Nordström (2009) highlights the importance of creating opportunities for children to create close social relationships with family, kin, and peers within a community/neighbourhood. She indicates this by defining a child-friendly structure. Horelli promotes child-friendliness as "a network of places with

meaningful activities where young and old can experience a sense of belonging whether individually or collectively. Participation of children and young people plays a central role in the creation of child-friendly environments "(Horelli, 2007, p.225).

Children develop and experience attachment with people from the moment they are born. A sense of belonging and positive consistent relationships contributes to a feeling of safety and security. When a child is able to build these close connections, the parental perception of the neighbourhood also improves positively. For instance, parents' willingness to let their kids play in the neighbourhood is likely to depend on how the neighbourhood facilities for children (parks and playgrounds) are experienced. Social processes such as creating a sense of belonging can play an important role in the considerations of parents when deciding which environment is in the best interest of their child (Edwards, 2016). It has become clear that a sense of belonging and being part of a social network is a fundamental human need and especially for children who are growing up. As stated earlier, how children develop their place attachment depends on developing positive emotions linked to the created meaning of a specific place. The factor sense of belonging is essential for children to develop a healthy social and emotional development and to develop a positive place attachment with their neighbourhood.

2. Greenspace and playgrounds

Besides the importance of a sense of belonging, there have also been numerous studies that investigated the influence of green space and playgrounds on children's wellbeing. The health benefits due to neighbourhood greenery exposure among children include various benefits. First of all, ARUP (2017) states that adding green space in neighbourhoods has a positive effect on the physical and mental health of children. A green environment stimulates children to move and it helps to reduce the chance of obesity, depression, and stress among children. Another study that focused on the effectiveness of playgrounds for physical activity behaviours also shows that a playground promotes physical activity. In response to the rising rates of childhood obesity, there is a growing awareness of the importance playgrounds in the neighbourhood; playgrounds boost the physical activity of children and less screen time (Mayfield et al., 2017). Other theories focus more on the cognitive development of children and the relationship with a green neighbourhood. Reuben et al. (2019) have provided a new study on the influence of a green environment on the cognitive development of children. This study confirms that if children grow up in an environment surrounded by greenery, children experience enhanced cognitive development over a short period of time. Moreover, the presence of nearby green in the neighbourhood multiplies the opportunity to create friendships and develop socio-cognitive skills (Hay et al., 2007). This theory claims that a green environment stimulates children to foster social interaction and facilitate prosocial behaviour development in their early years of growing up.

As mentioned earlier developmental psychology believes that children and youth experience places and space differently compared to adults. Children use the outdoor environment more often since they want to discover the world around them. (Nordström, 1990). Various studies highlight the urgency to capture children's perspectives and lived experiences in the public spaces of the neighbourhood they are living in. Children value public spaces that create opportunities for active play and social interaction by providing good facilities and amenities (Egli et al., 2019). When integrating the needs of children in the process of developing child-friendly neighbourhoods, it's important to distinguish different kinds of areas. Krishnamurthy

claims that next to designated play areas (such as the playground, sports field, schoolyard and park), it's also important to facilitate good undesignated playing areas (such as streets, sidewalks, or green spaces). Playing outside is not only limited to designated play spaces, but covers the whole public space of a neighbourhood. Children playing games in undesignated play areas encourages them to think of more diverse types of playing, increases the frequency of social interaction, and promotes more problem-solving skills compared to traditional playgrounds (Krishnamurthy, 2019).

Besides the added value of green spaces for only children, a green environment is also beneficial for the environment. According to ARUP, the child-friendly perspective acts as a catalyst for urban sustainable innovation (ARUP, 2017). Danenberg elaborates further that "A child-friendly lens to create a public space can help city leaders, policymakers and urban practitioners envision safe, inclusive and resilient cities and human settlements for all, reinforcing both the right to the city and the right to childhood" (Danenberg et al., 2018, p.12). The child-friendly perspective plays an important role in supporting the sustainable development of cities (including green spaces).

3. Safety and security: space for movement

Traffic safety

An important requirement to make sure children can play outside is to ensure that the neighbourhood is safe. The third factor focuses on the importance of safety and security in a neighbourhood (Nordström, 2009). In this research, safety is divided into two categories: traffic safety and public safety. According to UNICEF, traffic safety (also known as road safety) is everyone's responsibility, and not only the responsibility of police or institutions. Ensuring traffic safety for children is influenced by many factors. For instance, the number of pedestrian crossing and a good policy that enforce the law for all road users and especially speed limitations for car drivers (Unicef, 2022). Car-dominated streets are a barrier to creating safe and secure streets in neighbourhoods. The of rise car-free areas is a result of planning for more car-free neighbourhoods that prioritize space for pedestrians, cyclists, and children's recreation and playtime. Studies show that the independence of children and the ability to move has decreased due to the growth of car usage from 1970 until now (Krishnamurthy et al., 2018). ARUP further emphasizes the problems of cars; cars decrease the physical activity of children as well as the safety in traffic (ARUP, 2017). A high level of street safety and a more pedestrian-friendly design is often linked to the possibility for children to play free and be careless in the neighbourhood (Veitch et al., 2006). The walkability and street connectivity of a neighbourhood also improve when there is more space for human activities. Children will further develop their social network and it also fosters nurturing child-caregiver interactions (Christian et al., 2017).

Public safety

Children at an early age are willing to discover the world around them and for this reason, it's important to give children opportunities for independent mobility and allow them to walk to school, make use of the local playgrounds and engage with other children. The parents' perception of safety and fear of crime is associated with the choices parents make about playing outside. There is a relationship between the association of neighbourhood safety and the children's physical activity outside. Parental concerns increase when there's a high presence of risks in a neighbourhood. The perception of fear is associated with violence and different kinds of criminal activities (McDonnell, 2007). According to a recent study, "parents

living in neighbourhoods they perceived as safe were significantly more likely to have their children walk or bike from school, irrespective of the gender of the child” (Salahuddin et al., 2016, p. 1303). This study also claims that the perception of safety is not only determined by objective measures of safety but is also influenced by the subjective assessment of how residents experience their community. According to Pebley & Vaiana (2002) social networks play an important role in improving the social support among inhabitants and consequently increasing feelings of safety. Scientist claim that when families in neighbourhoods collectively maintain safety in their neighbourhood by watching the children’s behaviour the violence in the community will reduce (Morenoff et al., 2001). Social control and the social cohesion have a positive impact on improving the degree of safety in a neighbourhood.

4. Social interaction

The last factor highlights the importance of social interaction in a neighbourhood for children to develop a positive place attachment. As stated earlier, according to Pebley & Vaiana (2002) social networks play an important role in improving the social support among inhabitants and consequently increasing feelings of safety. As reported by Catling & Willy (2009) for developing a place attachment the children’s freedom of movement should be stimulated. We should encourage and facilitate children’s interaction and contribution to the neighbourhood and community. Children’s sense of place is based in the physical environment but constructed around the social environment and their feelings for places, evolving from their sense of the affordance of places, and is closely linked to their place attachment” (Catling & Willy, 2009, p. 8249). Children feeling a sense of connectedness with a place is influenced by the degree of social interaction and creates a positive sense of place in the neighbourhood they are living in. According to urban sociologist Ray Oldenburg, we should emphasize the importance of ‘third places. Oldenburg states that a third place is a valuable place or refuge outside of one’s home or working place, where people can meet up with friends, neighbours, co-workers, and even strangers regularly (Oldenburg, 1999 as cited in Mehta & Bosson, 2009). Nonetheless, the available playground for children in public spaces is often rather limited for children because of building more high-density housing areas. This results in limited access to outdoor play spaces (Goldfeld & Sewell, 2021). The ambition to create healthy and liveable environments for residents should also include the rights of vulnerable groups such as children. We should not under-prioritize the needs of children during the planning phase of urban development (Danenberg, 2018).

2.6 Conceptual model

Based on the previous paragraphs a conceptual model (figure 4) has been constructed. The conceptual model visualizes the factors that have a positive impact on the sense of place development of a child living in a specific neighbourhood. This conceptual model hypothesizes the influence of four factors developing a positive place attachment to the neighbourhood children are living in. The place attachment and sense of place are the depend variable. Relph’s theory on the concept of place (1976), states that a sense of place comes from a feeling of connectedness (in a physical, emotional, or spiritual way) to a particular geographic area. Children’s social and emotional foundations are built via geographic experiences that support them to develop of sense of place (Relph, 1976). Next to sense of place, the concept of place attachment is also important to express the meaning that is attached to a spatial setting by humans. According to Rubinstein & Parmelee place attachment can be defined as: a set of feeling about a geographical location that emotionally binds a person to that place as a function

of its role as a setting for experience (Rubinstein & Parmelee, 1992, p. 2). These two concepts are influenced by four different factors. The first factor that has a positive influence of the place attachment of children is sense of belonging. Horreli promotes child-friendliness as “a network of places with meaningful activities where young and old can experience a sense of belonging whether individually or collectively. Participation of children and young people in the shaping of their settings plays a central role in the creation of child-friendly environments” (Horelli, 2007, p.225). The second factor is the availability of green space and playgrounds in a neighbourhood. The benefits of nearby green in the neighbourhood have been recognized by various scholars. Children value public spaces that create opportunities for active play and social interaction by providing good facilities and amenities (Egli et al., 2019). A green environment and playgrounds can be seen as a stimulator for social interaction and the sense of belonging. A feeling of safety and security (factor 3) also has a positive impact on the experienced place attachment and sense of place of children. A sense of belonging and positive consistent relationships contributes to a feeling of safety and security. When a child is able to build these close connections, the parental perception of the neighbourhood also improves positively (Edwards, 2016). Again, the factors are closely linked to each other, since a feeling of safety and security is influenced by the degree of sense of belonging. The last factor is social interaction and highlights the importance of the role of the social environment that influences the place attachment of children. Children’s sense of place is based in the physical environment but constructed around the social environment and their feelings for places, evolving from their sense of the affordance of places, and is closely linked to their place attachment” (Catling & Willy, 2009, p. 8249). The four factors are also conditions for a liveable neighbourhood, as visualized in the conceptual model. This conceptual model also hypothesizes that a positive place attachment influences the degree of a ‘child’ friendly environment.

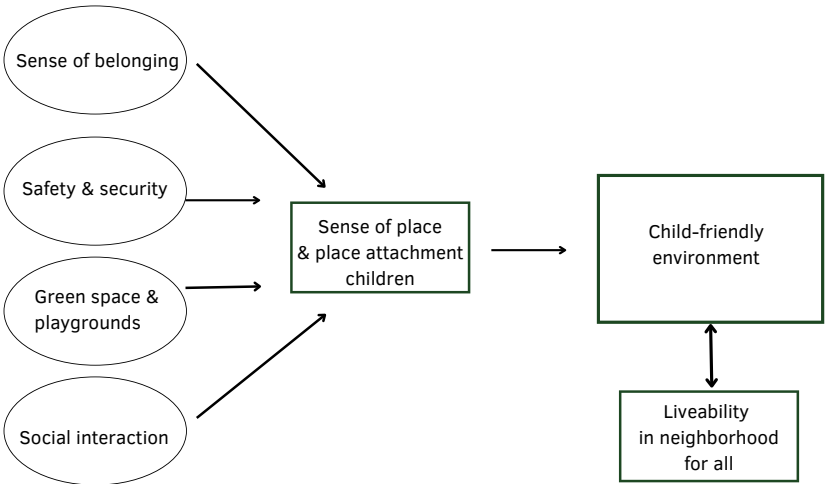


Figure 4: Conceptual model

3. Methodology

Now that we have established the theoretical framework, the following chapter will provide a methodological framework that will be utilized. This chapter aims at revealing the main methodological background of the research and illustrates the research design. Data collecting must follow particular scientific guidelines such as integrity and reliability standards. Within this chapter, the research design will be explained and include an overview of the data collection method as well as the data analysis method. To understand the author's arguments and choices for the research design, the pros and cons of the research methods will be discussed to provide a clear overview of the values of this research.

3.1 Research approach

According to YanowPeregrine & Schwartz-Shea "research design refers to the basic structure of a research project, the plan for carrying out an investigation focused on a research question that is central to the concerns of a particular epistemic community" (YanowPeregrine & Schwartz-Shea, 2011, p.16). This chapter presents the methodological framework. An important part of this framework is the research approach. The research question is central in choosing this research approach. The research question formulated as follows: *"Which factors contribute to the development of a positive place attachment and sense of place of children living in the neighbourhood Hoge Vucht and why?"* According to various theorists two types of research approaches are suggested for scientific research: the deductive approach and the inductive approach. The deductive approach starts from a theoretical framework, from which any number of alternative hypotheses could be deduced. The inductive approach on the other hand involves defining empirical observations about a particular phenomenon in order to develop concepts and theories based on these observations (Woiceshyn & Daellenbach, 2018). For this research there is chosen to use a flexible form of research design, a combination of an inductive and deductive research design, which is called a 'abductive research approach'. Dubois and Gadde (2002) stress the importance of continually reviewing the theoretical/analytical framework during a research process by using an abductive research approach. According to the founders "The abductive approach is to be seen as different from a mixture of deductive and inductive approaches. An abductive approach is fruitful if the researcher objective is to discover new things – other variables and other relationships" (Dubois & Gadde, 2002, p. 559).

An abductive research approach is present since the scope of the researcher was continually evolving which resulted in a dynamic and iterative research process. This research started from a general perspective that illustrates the concepts of place attachment and child-friendly neighbourhoods. The relevant theories were used as a starting point to conduct a theoretical framework that functioned as a guideline during the phase of data collection. The deductive characteristics of research is embedded in developing a hypothesis that is based on existing theory. The hypothesis was formulated based on factors that might contribute to the development of place attachment of children living in the Hoge Vucht. This research also has a flexible approach, since it's not only focused on theory generation but much more on theory development. Similar to the grounded theory, the abductive approach focuses on the generation of new concepts and development of theoretical models, rather than only confirming existing theories (Dubois & Gadde, 2002). The qualitative research was executed in the form of taking semi-structured interviews with inhabitants of the neighbourhood Hoge

Vucht. The outcomes of this interview illustrated whether the hypothesis could be supported and which factors should be added to the conceptual model that was created before the start of the data collection. As stated by Dubois & Gadde "This approach creates fruitful cross-fertilization where new combinations are developed through a mixture of established theoretical models and new concepts from the confrontation with reality" (Dubois & Gadde, 2002, p. 559). The results of the research were used to explain the relationships between the existing and new variables to redevelop the existing theory with new insights from the data collection. The data was analysed to determine if the hypothesis was supported and could be proven right. Chapter four provides insights of the findings of this research and chapter five gives an answer if the author found support from the hypothesis. It will become clear if the formulated factors indeed have an influence on the place attachment and sense of place of children living in the Hoge Vucht.

3.2 Research philosophy

Another important element of the research design is the research philosophy. The research philosophy "refers to a system of beliefs and assumptions about the development of knowledge" (Saunders, 2009, p.124). Saunders (2009) claims in every stage of research, a researcher makes assumptions about the realities that encounter in a research, based on prior knowledge, values and human knowledge. "A well-thought-out and consistent set of assumptions will constitute a credible research philosophy, which will underpin your methodological choice, research strategy and data collection techniques and analysis procedures." (Saunders, 2009, p. 124). The research was conducted from an interpretivism stance. Saunders claim that "the purpose of interpretivism research is to create new, richer understandings and interpretations of social worlds and contexts" (Saunders, 2009, p. 140). Interpretivist researchers aim to consider what is meaningful to the research participants and the participants' lived experiences. Baxter and Eyles elaborate on this by claiming that interpretive geographers are concerned with investigating the understanding and analysis of meanings in specific contexts. In-depth interviewing is often used when an interpretivism research philosophy is taken as perspective (Baxter & Eyles, 1997). This research aims to investigate the factors that contribute to the development of place attachment and the sense of place of children living in the neighbourhood Hoge Vucht. For this reason, the interpretivism research philosophy allows the researcher to get an understanding of the respondents' thoughts, values and meanings of the subject child friendly neighbourhoods.

3.3 Research strategy

3.3.1 Qualitative research

According to Cresswell (2009) three main types of research design can be distinguished: qualitative methods, quantitative methods and mixed methods. The research methodology that has been adopted to investigate the factors that contribute to the place attachment is a qualitative research approach. A qualitative analysis allows for an in-depth understanding of the research subject to be acquired. Especially in the field of Human Geography, in which the relationship between human activities and their spatial environment is being investigated, it's important that people can express themselves in a comfortable environment (Clifford et al., 2016). Many scholars have acknowledged the value of interviewing face-to-face with spoken interaction in a particular and social context. According to Cresswell (2007) the philosophy of qualitative research is interpretive, humanistic, and naturalistic. Qualitative analysis is suitable for research in which the subject of research that involves a significant degree of study of

behavioural attitudes that cannot be expressed in using quantitative study (Hitchings & Latham, 2019). The choice for qualitative research is made because this research aims to get an understanding in the factors that contribute to the place attachment and sense of place of children living in the neighbourhood Hoge Vucht. Especially for this liveability research the emphasis is on investigating the spatial environment of Hoge Vucht and the relationships between this neighbourhood and the target group.

3.3.2 Unit of analysis

Before research could be conducted, the case needs to be defined. First of all, the unit of analysis is crucial in this operationalization. According to Baxter & Jack (2008) a unit of analysis can be defined as a spatial bounded phenomenon that is being researched over a particular period of time. In this research the unit of analysis the Hoge Vucht is the geographical unit of analysis. A geographical unit is a spatial location. The scope of this research focuses on vulnerable neighbourhoods and this thereby the neighbourhood Hoge Vucht was selected to gain in-depth knowledge about the concepts place attachment and child-friendly neighbourhoods. Hoge Vucht (Breda North) is involved in the National Programme Liveability and Safety, in which various ministries are investing in tackling the accumulation of problems (Rijksoverheid, 2022).

Characteristics Hoge Vucht

The neighbourhood Hoge Vucht is the research area for this research and has been used as location to investigate the factors that contribute to a child friendly neighbourhood. As stated earlier, before starting the empirical fieldwork, a research area was chosen in order to collect in-depth information on a specific area. A demographical analysis has been done to study the population-based information such as population, age, race, income rate etc. Hoge Vucht is the collective name for the neighbourhoods that together form the Northern part of the municipality Breda. These neighbourhoods are: Wisselaar, Geeren-Noord, Geeren-Zuid and Biesdonk (see figure 5). Hoge Vucht is located north of the center of Breda. It is a typical 1960s neighborhood, spaciouly laid out with wide avenues, canals and parks. Hoge Vucht, also known as 'Breda north' has an area of 883 hectares, of which 847 are land and 36 are water (100 hectares is 1 km²). The average density of addresses is 2,376 addresses per km². Compared to other parts of Breda, this is relatively low (Alle Cijfers, 2021).

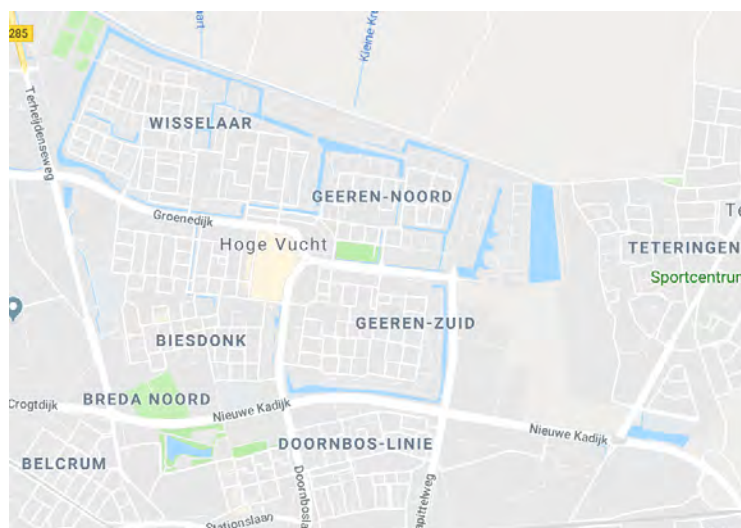


Figure 5: Hoge Vucht in Breda (Google Maps, 2022)

Population Hoge Vucht

In 2021, 25,475 people lived in Hoge Vucht, which is about one-eighth of Breda's population (figure 6). There are 12,320 households living in district Breda north. Forty-four percent of the inhabitants have a migration background, making it one of the most multicultural districts of Breda (Alle Cijfers, 2021). The number of residents with a migration background in the Breda North district is estimated at 14.285 residents. This number has not changed since 2013.

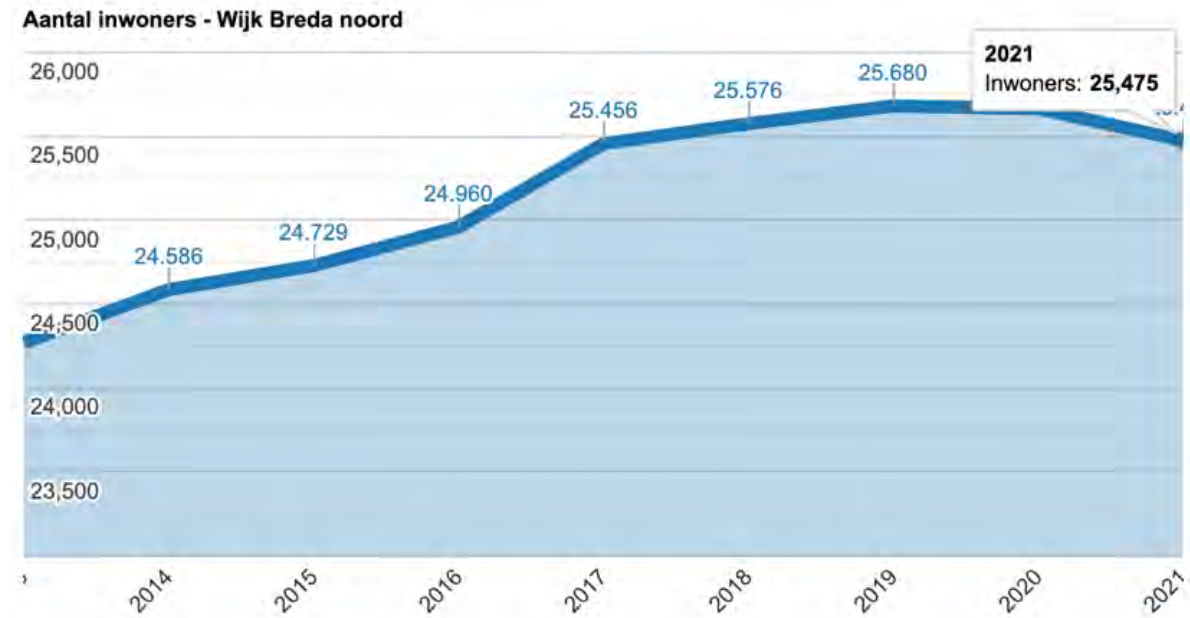


Figure 6: Population growth Hoge Vucht (Alle Cijfers.nl, 2021)

As illustrated in figure 7 the number of residents between the ages of 0 and 15 is estimated at 4220 children. The proportion of children in Hoge Vucht (Breda North) is compared with the area 'Breda Centre'. Figure 8 shows that the age group 0-14 years old is 16% of the total amount of inhabitants living in Hoge Vucht. In contrast to Hoge Vucht, the city centre of Breda counts significantly less children between 0-14 years old. Based on this socio-demographic factor (age) the Hoge Vucht is a child friendly neighbourhood in terms of proportion of children.

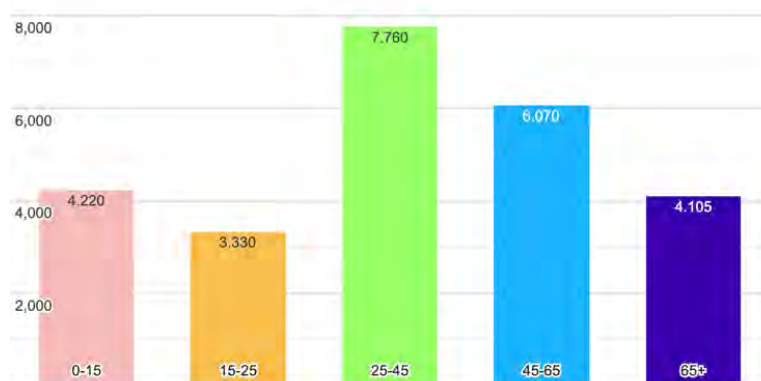


Figure 7: Age distribution Hoge Vucht (Alle Cijfers, 2021)

Breda centrum



Breda noord



0% 20% 40% 60% 80% 100%

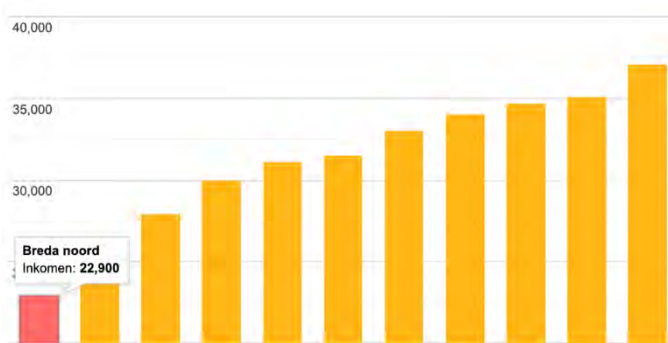
● 0-14 ● 15-24 ● 25-44 ● 45-64 ● 65+

CBS KWB | 2022

Figure 8: Number of inhabitants in Hoge Vucht by age groups (Breda in Cijfers, 2022)

Income segregation Breda

The average gross annual income in Breda North district is estimated at €22,900 (figure 9). Income segregation in Breda has increased during the past years. While Breda is characterised by high standards of living and a high liveability, there is also a high-income inequality and differences in living standards. To provide insight into segregation in Breda; the district Breda South is estimated to have an average gross annual income of €37,100 (Alle Cijfers, 2021). The Hoge Vucht has a high number of social housings. 87% of the rental properties is social housing (Cubiss, 2022).



Gemiddeld inkomen per jaar voor de wijken in Breda (wijk Breda noord is rood)

Figure 9: Average gross annual income Hoge Vucht (Alle Cijfers, 2021)

3.3.3 Unit of observation

The unit of observation is any item from which data can be collected and measured. The unit of observation is for reason also known as the item that actually is being observed or measured, in the course of trying to gain insights about the unit of analysis. The population that is being studies are parents living in the vulnerable neighbourhood 'Hoge Vucht' with children between the age of 5 and 12 years old. Even though the main focus for this research is child friendly

neighbourhoods, parents are selected as the unit of observation because young children may not report their choices correctly. Parents know how to formulate the needs, tendencies and desires of their child based on their instincts and the experiences they have lived with them.

3.3.4 Sampling strategy

The sample for research should represent the population that's being studied. The sampling strategy refers to how the respondents in research can be selected from the overall study population. The sample is used as a basis for making inferences about the population group. The strategy that has been used for this research includes the method 'simple random sampling'. According to Turner, "when simple random sampling is used, all elements have an equal probability of being selected. Because this sampling method gives equal probability to all elements, it is useful when researchers are interested in associations that would apply to the whole population" (Turner, 2020, p.8). To find respondents living in Hoge Vucht and parent of a child between 0-12 years old people were asked on various ways (online and offline searching). When the first respondents were selected, the method 'snowball sampling' was chosen as a method for the sampling strategy, since respondents might also know other people and appoint these potential respondents. A sampling procedure may be defined as snowball sampling when the researcher accesses respondents through the social network that is provided by other earlier interviewed respondents (Noy, 2008). Each time an interview was done, the respondent was asked to think of other potential respondents. 'In total 10 respondents were interviewed. After 10 interviews, theoretical saturation for a general answer to the research question was reached.' saturation refers to the point in data collection when no additional issues or insights emerge from data and conceptual categories have been identified, explored and exhausted" (Hennink et al., 2016, p.592). Table 1 provides an overview of the characteristics of the respondents.

Gender	Children	Age child(ren)	Living in Hoge Vucht since
1. Woman	1 girl	1 year old	2015
2. Woman	1 girl	6 years old	2016
	1 girl	8 years old	
	1 boy	12 years old	
3. Woman	1 boy	1 year old	1991
	1 girl	6 years old	
4. Woman	1 girl	4 years old	2010
5. Woman	1 boy	4 years old	2011
	1 girl	6 years old	
6. Woman	1 boy	3 years old	1991
	1 boy	7 years old	
7. Woman	1 girl	9 years old	2013
8. Woman	1 boy	6 years old	2020
9. Woman	1 boy	3 years old	2012
10. Woman	1 girl	8 years old	2009

Table 1: Overview of respondents

Semi-structured interviews

In order to gain insights in the factors that influence the development of the children's place attachments, semi-structured interviews were conducted with 10 parents from the target group. The choice for semi-structured interviews is made to encourage two-way communication. Semi-structured interviews have some degree of predetermined order but still ensures flexibility in the way concepts are addresses by the respondent. In other words: there is more room for interpretation and follow up questions that could reveal new interesting topics (Clifford et al., 2016). Moreover, by choosing questionnaires as research method, there is a risk that respondents are more likely to answer with more socially-accepted responses. They will be more likely to answer with the first thing that comes in their mind. When using interviews, the interviewer has the possibility to ask follow-up questions so the interview will provide richer data with more extensive information.

An interview guide was created before conducting the interviews. The interview enables the interviewer to structure the way the interview is conducted. In other words: structuring the discussion you want to have with an interviewee. The interview guide was ordered according to the theoretical framework. The four factors that contribute to a child friendly neighbourhood: green space, sense of belonging and safety. For each factor/theme different questions were asked. A number of questions are presented below to give an idea of the types of questions:

- *What do you think of when you hear the term 'child-friendly neighbourhood', which terms come up in our mind and how does this neighbourhood look like?*
- *How much does your child spent outside to play with other children? And is playing outside being encouraged through the public space in Hoge Vucht?*
- *How do you experience the safety level for your child? Think of the traffic safety and the public safety on streets.*
- *What do you think of the degree of green spaces in Hoge Vucht? And what are places that you associate with a green environment*
- *Do playgrounds and other facilities in Hoge Vucht provide opportunities for your child to interact with other children?*

Please find attached the overview of the complete interview guide (appendix number 8.1). This will allow you to better understand the type of interview and the related interview questions. The interviews were conducted in Hoge Vucht (or online) and lasted approximately 1 hour. Answers were recorded anonymously.

3.4 Data analysis

The recordings of the interviews were used to make transcripts. Transcribes interviews can help a researcher to code the data on an organized way and to discover relationships between topics that have been discussed during the interviews. Moreover, transcripts guarantee accuracy because it allows the researcher to review exactly what was said by who in the exact words: it improves the reliability and validity and trustworthiness of the research (MacLean et al., 2004) The transcripts were used to conduct the coding phase. The conceptualization of raw data is known as coding, which also involves interacting with the contrasting thoughts, and finally conceptualizing theories. The data analysis (coding) was performed using the programme ATLAS.ti. According to various scholars, "the researcher can create an analysis framework with the key question in mind and then code specific sections of the articles, which allows a smooth

and referenced way when writing up the review” (Smit & Scherman, 2021, p. 2). This research seeks to investigate the factors that enhance the sense of place of children living in the neighbourhood Hoge Vucht in Breda. Using ATLAS.ti is useful for this type of question since an in-depth understanding of the textual outcomes can be drawn. The outcomes of the interview could easily be analysed by using the coding strategies with the program ATLAS.ti. This research has a flexible approach, since it uses the guidelines of the grounded theory and focuses on the generation of new concepts and development of theoretical models, rather than only confirming existing theories (Dubois & Gadde, 2002). Corbin & Strauss (1990) outline an approach with the different steps of grounded theory: The phases of the data analysis process are illustrated in this paragraph. The three-step coding process include the following steps: open coding, axial coding and selective coding.

3.4.1 Open coding

First the transcripts of the interviews were uploaded in the programme ATLAS.ti. The first coding phase is known as ‘open coding’ and is used to reflect on the collected data. Open coding helps the researcher to divide the collected data into discrete parts and create “codes” to label them. It’s used to open up to new theoretical possibilities (Saldaña, 2009). This phase focuses on researching the data with an open view and assigning categories to all the knowledge that could be valuable regarding the research objective of the project. To show an example of the open coding phase the following sentence shows the open code that belongs to this phrase: *“I often go to this playground with my son, but there are so many young people here who are causing nuisance and making noise that I would rather not go there with him. As soon as I turn around, I am afraid that they will bother my son. My son is very calm, very much in his own head. As a child you don’t feel like someone is coming to bother you, the playground should be a relaxing place”* – open code influence youth on playground.

After reading through the data several times, tentative labels were created for parts of data that summarize the meaning of the text. As mentioned earlier, the interviews for this research were conducted based on the concept of semi-structured interviews. This is a type of researcher in which the interviewer asks only a few predetermined questions instead of following a strict list of questions. This allows respondents to open up about their most important issues and it becomes clear which topics are most important for each respondent. The questions of the interviews are based on the theoretical framework, so semi-structured. Even though the questions are based on the theoretical framework (the factors that improve child friendliness) the respondent still has the opportunity to raise each topic. Appendix number 8.2 illustrates a part of the open coding list after assigning categories to all the different phrases in the transcripts of the interviews. Some quotations appeared to have the same open code. The second column in this figure shows all the quotations that belong to a specific quote (orange symbol). The groundedness function in ATLAS.ti shows the code frequency so how many different quotations are linked to an open code. For example, the code ‘financial struggle: housing shortage’ is used for 6 different quotations.

3.4.2 Axial coding

Axial coding was the second step in conducting the analysis. Axial coding focuses on reading over the labelled codes and dividing them into categories. In this category it becomes clear how the codes are connected to each other (Saldaña, 2009). The categories were based on the pre-devised indicators in the theoretical framework. The factors that enhance a sense of place for

children and improve the child friendliness were used as categories. The open codes were connected to each other and divided into categories. The table with all open codes are presented in appendix number 8.3 Codes that belonged to each other were merged and codes that did not have enough supporting data (quotations) were removed. This phase focuses on identifying relationships among the open codes. The indicators sense of belonging, safety, green environment and social interaction were used as categories. The categories 'involvement municipality' and 'living situation' were also created as categories (see appendix).

3.4.3 Selective coding

The final stage of the data analysis is selective coding, and focuses on connecting all the categories around one core category. For this research the purpose is to modify and existing theory based on the findings. Creswell formulates this step as follows: "The final steps, then is selective coding, in which the researcher takes the model and develops propositions (or hypotheses) that interrelate the categories in the model or assembles a story that describe the interrelationships of categories in the model" (Cresswell, 2007, p.65). All the codes that were identified through the open and axial coding phase were reviewed again and are organised to construct a deeper theoretical meaning. This was done by creating hyperlinks, that shows the relationship between two codes. Appendix number 8.4 gives an example of the link manager in ATLAS.ti and how some of the codes are related to each other. For instance, the code 'concern about child' is connected to the code 'responsibility for child'. The relation 'is associated with' was used to show the relation. After providing all the categories with hyperlink, networks were created for each category to represent the relationships. The function 'networks' allows the researcher to conceptualize the collected data by connecting codes together in a visual diagram. To create a concluding network and networks of the subcategories. Chapter four gives an outline of the findings of this research. The networks are also included in this chapter to provide a deeper understanding of the categories.

3.5 Validity & reliability

According to Bryman, "reliability and validity are presented as criteria for assessing the quality of social research" (Bryman, 2012, p.45). The definitions of these concepts and the practical guidelines how to deal with these concepts of Bryman are used to illustrate the validity and reliability related to this research.

3.5.1 Validity

Bryman formulates validity as the integrity of conclusions that are generated from research (Bryman, 2012). There are two types of validity, that both reflect whether or not the results of a research are trustworthy and meaningful. First of all, internal validity "is concerned with the question of whether a conclusion that incorporates a causal relationship between two or more variables hold water" (Bryman, 2012, p.47). Internal validity focuses on causality between the variables in which the independent variable is the factor that has a causal impact on the dependent variable. For this research, the variables sense of place and place attachment are labelled as the dependent variables as well as the child-friendly neighbourhood. The conceptual model (illustrated in chapter two) hypothesizes the influence of four factors developing a positive place attachment to the neighbourhood children are living in. The sense of place and place attachment are influenced by the independent variables (factors) sense of belonging, safety and security, green space and playgrounds and social interaction. Additionally, the conceptual model also hypothesizes the influence of place attachment on the degree of child-

friendly neighbourhoods. Internal validity is linked to the concept 'credibility' that measures how believable the findings of a research are. Using an well-structured interview guide and having an overall strategy (research design) to integrate the different variables of the study contributes to maximizing the validity. The interview guide and a thorough research plan helped me to minimize the potential researcher bias. The theoretical framework has been used as starting point for developing the interview guide. Because this data collection method relies on asking questions within a predetermined theoretical framework, I was able to guarantee the validity of this research. Validity in this case, refers to the degree to which this study accurately assesses the concept place attachment and child-friendliness that I was attempting to measure. Next to internal validity, external validity is related "with the question of whether the results of a study can be generalized beyond the specific research context" (Bryman, 2012, p.47). External validity can be measured by the degree of 'transferability' that questions if the findings are likely to be apply to other contexts.

3.5.2 Reliability

As stated by Bryman, "reliability is concerned with the question of whether the results of a study are repeatable" (Bryman, 2012, p. 46). According to Bryman, a researcher should prepare his or her research procedures in greater detail to maximize the reliability. The reliability is associated with the concept 'dependability' hat shows to what extent the findings apply at other times. According to Lincoln and Guba, to increase the trustworthiness, researchers should adopt an 'auditing' approach. Ensuring that complete records or are kept of all research phases can increase the reliability. The selection of participants, interview transcripts, data analysis decisions should be included in the research in an accessible manner. Chapter three illustrates the choices that are made to conduct this research. The research design of this research presents the basis structure/the plan for carrying out this investigation focused on the research question how the place attachment and sense of place of children in Hoge Vucht can be influenced. Furthermore, the records of the interviews are transformed into interview transcripts. Lastly, the process of data analysis is illustrated in chapter three (methodology) and four (findings). Using ATLAS.ti is useful for coding and getting an in-depth understanding of the textual outcomes. The outcomes of the interview could easily be analysed by using the coding strategies with the program ATLAS.ti. All these resulted in a strategy to maximize the reliability of this research.

4. Findings

This chapter gives insight in the results of the research. I address the question how the factors of a child friendly neighbourhood influence the place attachment of children living in the Hoge Vucht. This chapter is divided into different paragraphs. In the first section the experiences of the respondents about the safety & security level are presented. Secondly, attention is paid to the importance of a green environment and playgrounds. After that, the chapter moves on to describe in greater detail the indicator 'sense of belonging'. The part that follows focuses on how the social interaction is experienced in the neighbourhood Hoge Vucht. Additionally, the importance of citizen participation is illustrated. Finally, a clear and well-under pinned answer is provided to the research question.

4.1 Safety & security level

Of all interviews, all respondents find it important to improve the safety level in the Hoge Vucht at first. The category safety & security level is an important indicator for a child friendly neighbourhood, according to all parents living in the Hoge Vucht. 8 respondents formulated 'safety improvement' as most important action to transform the neighbourhood to a more child-friendly area.

4.1.1 Pedestrian and road safety

During the interviews it came forth that the high traffic volume in the neighbourhood and the high vehicle speed are of the main reasons children and parents feel unsafe. This becomes clear in a number of interviews, when respondents were asked to assess the pedestrian and road safety in Hoge Vucht. The following quote illustrates that this respondent is fearful of allowing their child to play alone outside unsupervised, because of the fast-moving traffic: *"Yes, you have a lot of people there who drive way too fast. Children often cycle through the dangerous roads. It's just a matter of time for something to go wrong. They should place those speed blocks, or speed bumps or a hedge around the playing area"*. This respondent has a son of three years old and lives in Hoge Vucht since 2012. Cars driving too fast has always been a problem according to this respondent. Another respondent states that the safety level at roads is especially a problem when the schools are opening or closing. The respondent explains this with the following statement: *"There are many cars every morning and evening. Your child is almost driven upside down because of the high number of cars. My child walks to school with, I don't allow my kids to take the bike alone"*. The respondents state that they are afraid to let their children play outside or bike alone.

The problem that cars are driving too fast makes the respondents concerned and makes them take measures to guarantee the safety of their children. For instance, it was stated by a respondent that the neighbourhood has a restricted area in which her son is allowed to play: *"My son is not allowed to play outside. It's pretty quiet on my street. So, I have a good view of him. Yes, I think that's a good street he can play there. But no, I won't let him go any further"*. Likewise, another respondent expresses this concern by stating that she even bought a watch for her child to make her feel safe: *"She can go there to play at the fountain at the playground. I prefer to go along, there is a dangerous road that she has to cross. She now also has a smart watch with which she can call, which gives me a nice feeling that if there is something, she can always call me"*. Another example of taking measure is choosing alternative cycling routes to

school from home. As stated by a respondent: *'I used to cycle with them all the time, and when they didn't cycle alone, I chose a route that was safer. I take it into account'*.

4.1.2 Public safety in the neighbourhood

Additionally, a high sense of public safety in the neighbourhood is also as an important condition to ensure the safety of children, as stated numerous respondents during the interviews. All respondents referred to the public nuisance that is created by the youth living in the neighbourhood. Neighbourhood disturbance is caused by various actions of the so called 'loiters'. Nevertheless, the extent to which the respondents are bothered by the young people varies. This is due to the location where residents live in Hoge Vucht. Besides the location, the mindset of the respondent also influences if they see the youth as a problem. The following respondent stated the following: *"I really don't mind that they hang there, because there are also days when they don't bother me"*. Some places are mentioned quit often as a hangout for youth.

The actions carried out by youth varies from taking over the playground of children to destruction of public poverty (also known as vandalism). The figure below provides an overview of the activities mentioned by respondents that negatively influence the sense of safety. The segments in the figure do not show how often the actions were mentioned during the interviews. The actions that were mentioned the most are explained in the following part. Not all actions are explained to highlight the most important actions. For each action the most expressive quotes have been selected to provide insight into the mindset of the respondents.

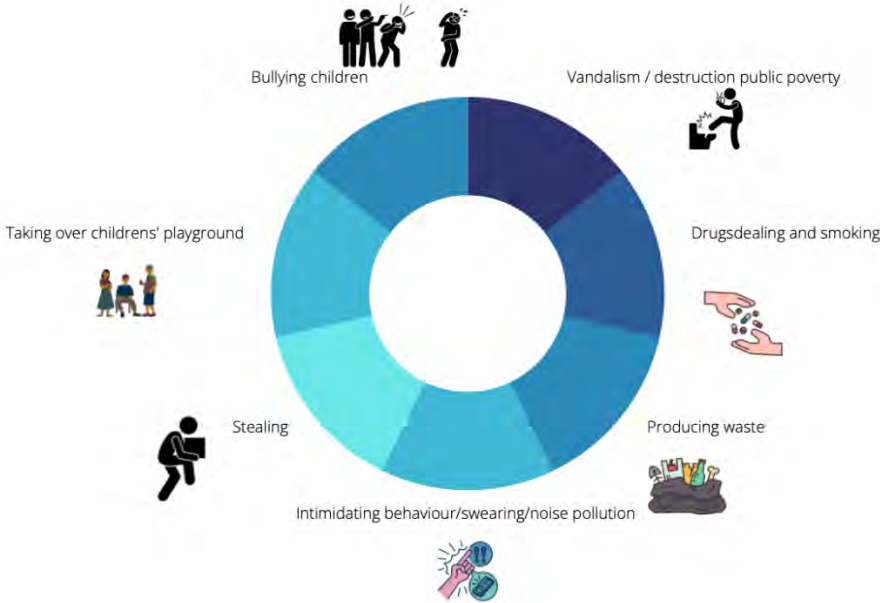


Figure 10: Actions mentioned by respondents that negatively influence sense of safety

Producing waste

Pollution and waste are mentioned frequently during the interviews when the respondents are asked about the environment and sphere on the street. Figure 11 shows an example of the waste. For example, a concerned respondent said: *"I hope people will one day clean up their mess. That young people do not leave pizza boxes or bags of weed in the schoolyard. That group 8 children don't have to clean up with their clothespin the next day. They shouldn't do that"*.

This respondent illustrates her frustration and dangers of improper drug disposal caused by youth. Dangerous materials such as drug packets strewn across children's playground. During the interviews it also became clear that children are using the waste on a dangerous way: *"Every now and then I look outside and then I think, what a mess it is again. Old closets are put out on the street, within a day they disappear everywhere in the district. Kids use it to chase each other and play with these dangerous materials"*. Types of waste mentioned during the interviews range from drug waste to rotten eggs. The following respondent illustrates the situation regarding the growing garbage crisis: *"What I find very unfortunate is that there is often a lot of waste in the neighbourhoods. Many people throw garbage from the flat. There are also many mice and rats. There are warning signs but people do it anyway. Even rotten eggs are thrown down the path. I hear from other flats, such as the flat next door, that people are working with nitrous oxide there. I don't feel that is the case here in the flat"*. This quote shows the effects of the waste, even rats are entering the neighbourhood.

Not only youth are producing waste in the neighbourhood. According to most of respondents the problem is caused by various inhabitants. Besides the fact that all respondents find it antisocial behaviour, they also believe that the municipality doesn't encourage inhabitants enough to clean up their waste. The following statement provides an explanation why cleaning up waste could be a struggle for inhabitants: *"We have a nice lawn here in the park, but everyone lets their dog out because there are no facilities for cleaning up dog poop"*. This respondent states that is also about stimulating good behaviour and investing in enough facilities for waste production. The role of the municipality plays an important role in this issue. According to the following quote of a respondent, inhabitants of Hoge Vucht are not cleaning up their big waste since they need to pay for this: *"People will no longer pay 25 euros to pick up their waste. They just dump it there; this is not good. But I saw it coming when they said we are going to ask for money for this. That's not the solution either. Since a lot of people can't afford this because of low-income"*. Hoge Vucht is known as low-income neighbourhood, as stated by the respondent their priority is not to invest in cleaning up waste.



Figure 11: Example of waste produced in playground

Loitering: taking over children's playgrounds

As can be seen in figure 10, the activities taking over children's' playground, and intimidating/swearing are mentioned by the respondents. According to all respondents, the streets and especially playgrounds should be a safe spot for children living in the Hoge Vucht. A respondent stated the following in the interview about this concern: *"I often go to this*

playground with my son, but there are so many young people here who are causing nuisance and making noise that I would rather not go there with him. As soon as I turn around, I am afraid that they will bother my son. My son is very calm, very much in his own head. As a child you don't feel like someone is coming to bother you, the playground should be a relaxing place". Another respondent states that youths are also gathering outside at the schoolyard, which supposed to be a place for children. The following quote expresses the naissance: *"But in recent months I have noticed that in the evening very large groups also gather in the schoolyard. The young people cause a lot of noise nuisance, but also pollution. They meet on the playground. When I want to take me to school like this, it is again full of plastic bottles from the night before".*

It's made clear that the loitering issue in Hoge Vucht is a factor that negatively influences the liveability of all inhabitants and especially children. Some of the respondents might know the cause of the loitering. *"Yes, I often hear people from the neighbourhood complaining about youth causing nuisance, but the young people have no place to go either. They hang out because they have no other options or facilities to make use of".* This quote implies that youths older than 12 are too young for some adult activities and too old for children's playgrounds. During the interviews the importance of community centres for youth was mentioned frequently. There used to be more community centres in the past for youth. This quote indicates the importance of these locations for youth: *"And I know there used to be a community centre for youth. When I see the number hanging on that field, I think there is not enough to do for young people right now".* All respondents were willing to think about this concern on a realistic way. As stated earlier, the municipality should invest more in stimulating good behaviour and invest in creating enough facilities for youth. The following quote expresses this clearly: *"Yes, it's very easy to say that we have loiterers, but why do they bother us? The children have nowhere to go and there is nothing. You have a football club in the neighbourhood and that's where it ends".* Another respondent states the following: *"I think that it's also about taking the youth more seriously. They are now seen and approached as loitering which is negative. We need to look at what the needs are for the young people. If the older children/youth are causing less problems in the neighbourhood, the liveability of young children will automatically improve".*

Vandalism/destruction public poverty

Another issue that is often mentioned is the youth crime that is taking place in the Hoge Vucht. Especially vandalism and the destruction of public facilities is seen as a disturbing factor that has a negative impact on the liveability of children and the environment. Vandalism includes graffiti, trash dumping, breaking or defacing of poverty, setting fires and every other activity involving deliberate destruction of a damage to public or private poverty. An inhabitant that has been interviewed says the following about this: *"Everything you can think of will be blown up or destroyed here".* All respondents believe that the vandalism activities are seen to negatively affect the liveability of children. The following statement shows vandalism as a concerning phenomenon: *"Yes, a number of incidents have happened last couple of years. For example, two years ago there was an explosion near a playground. Incidents like that make you think 'I don't really live in a nice neighbourhood'. When my daughter is older, I will be careful about letting her walk down the street".*

The impact of illegal activities results in parents who are worried about their child. The influence of neighbourhood safety on children's wellbeing is relatively high in Hoge Vucht. According to the respondents, high rates of crime occur often during particular times of the

year. For instance, during new year's eve: "During new year's eve, Hoge Vucht is not a nice neighbourhood at all. This area is during new year's eve called a high-risk area. I always flee out of this neighbourhood during this time of the year. My children need to be safe, and it's way too dangerous then. A lot of destructions, fights and arson".

4.1.3 Safety & sense of place

As stated in the theoretical framework, children develop positive and negative feelings about their everyday surroundings. Sense of safety is important in order to develop positive cognitions linked to the meaning of the neighbourhood. Figure 12 shows the visualization of the linkages between the codes (topics) that have been discussed during the interviews. The following section moves on to describe in greater detail the created network. The upper section of the network contains the relationships about the public safety in Hoge Vucht. The biggest concern in the neighbourhood results in a need for a safer neighbourhood. The problem of loitering is a cause of young people getting bored and their mentality. The network shows the actions that are associated with the loitering problem, for instance criminal activities and youth taking over the playground of children. The second type of safety is presented in the lower part of the network. This part of the network shows that the traffic safety negatively influences the environment. As shown in the network, parents are concerned about their child and this results in a need for a pedestrian friendly neighbourhood.

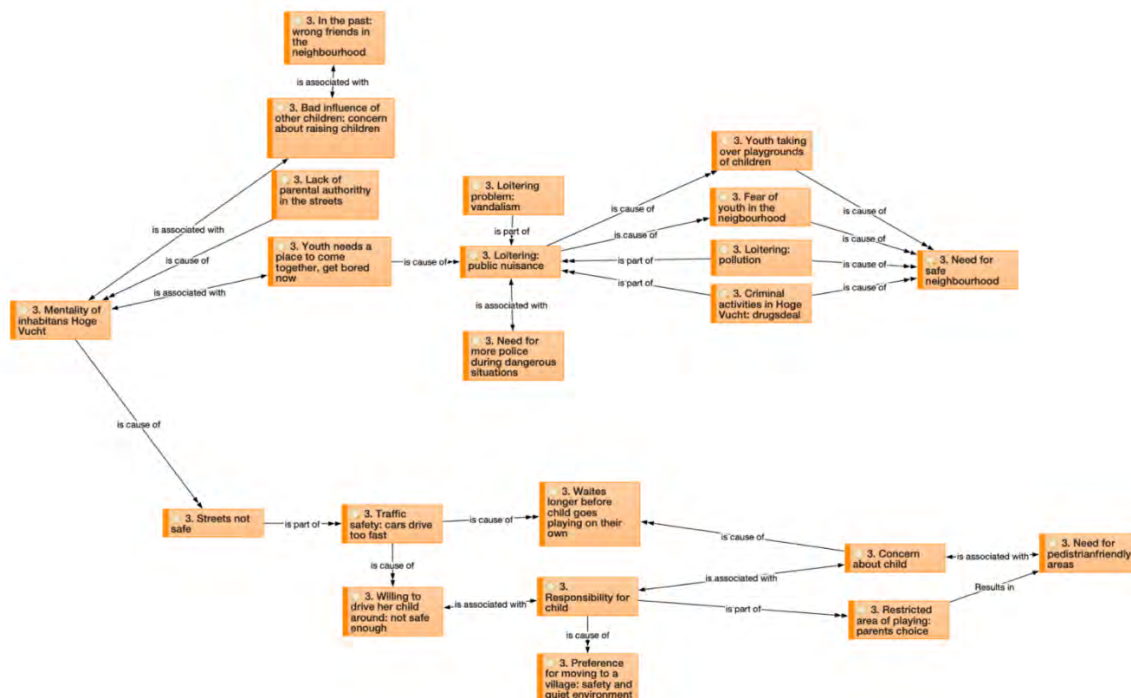


Figure 12: Network Safety & security level

4.2 Green space access to high quality playgrounds

The second indicator of a child friendly neighbourhood that has been researched in the Hoge Vucht is 'Green space and access to high quality playground'. As mentioned earlier in the theoretical framework green environment stimulates children to move and it helps to reduce

the chance of obesity, depression, and stress among children. It has become clear in the theoretical framework that many scholars have stressed the importance of playing outside.

Child-friendly neighbourhood in terms of amount children

The number of residents living in Hoge Vucht and between the ages of 0 and 15 is estimated at 4220 children (Alle cijfers, 2021). During the interviews it became clear that the number of children living in Hoge Vucht is relatively high: *"I really like living in the neighbourhood, I think it's a very nice neighbourhood. It is a multicultural neighbourhood and that suits me well as a person. And we also live in a very child-friendly neighbourhood, there are a lot of families with children living in Hoge Vucht. You can see good developments over the years"*. Another respondent states that *"I live in a flat in Hoge Vucht. In this area, I guess there are already 60 children living here. They all live in one of the four flats"*. Given the large number of children living in Hoge Vucht, there should be sufficient play opportunities for children and enough space for them to play. Some respondents claim that sometimes the high number of children and not enough playing facilities creates a certain tensions between children: *"We have a football field nearby; a lot of children make use of this facility. When there are too many children who would like to play here, the most articulate children will win and will be able to play. You can see it as the right of the strongest"*. Another respondent claims that *"Many playgrounds are too small for the number of children living in Hoge Vucht. I think it's a shame"*.

Quality and number of playgrounds in the Hoge Vucht

All respondents agree that access to parks or playgrounds in the neighbourhood, offers benefits to children. Playgrounds provide children the opportunity to practice and improve their social, emotional, cognitive and physical skills. Despite the fact that the respondents all have children of different ages, all respondents claimed that their child discover on their own way. The following quote shows the need of their children to engage with other children and discover on community playgrounds: *"My son is now six years old; he likes to explore and a playground is the best place to discover the world around them"*.

Respondents were asked during the interviews about the number and quality of playgrounds in Hoge Vucht. The minority of the respondents are satisfied with the playing facilities for children in Hoge Vucht and state that there are enough adequate playgrounds for their children. As stated by a respondent with a positive opinion about this topic: *"I also think that there are enough playgrounds and there is enough greenery in the neighbourhood. I'm happy with that, even with water. As far as I'm concerned, not much needs to be changed there. Nevertheless, the majority of the respondents indicated that there are not enough playgrounds available in the neighbourhood. As stated by the following respondent: "Yes, I think the play facilities here in the neighbourhood are very bad and not enough. It used to be better, but they have removed a lot of things for the reason that fewer loiterers come here. But the municipality forgets the most important reason why playgrounds are there: a place for children to play"*.

Apart from the availability of playgrounds, the quality of existing playground needs to be increased, according respondents. *"Some playground in the Hoge Vucht have not been changed the last 10 years. The playing equipment is often outdated and results in unsafe playing areas for children. A number of playgrounds have been renewed, these places look inviting and provide a safe space for children to move and have fun"*. This quote illustrates the need of high-quality playgrounds for children living in Hoge Vucht to engage with other children and enjoy

themselves. Some of the respondents even choose to visit other playgrounds outside Hoge Vucht, due to the scarcity of high-quality playgrounds. A respondent mentions the following *“I often drive to amusement park ‘The Efteling’ so the children can play there. It’s disappointing that I need to go to the Efteling to visit a good playground. I would like to have more playing facilities at a short distance”*. This respondent has the ability to travel by car to these kinds of locations. But still a lot of inhabitants living in Hoge Vucht are dependent on the facilities in the Hoge Vucht due to limited mobility options. *“I think it’s a shame that there is so limited attention for playground. I can’t travel by car, since I need to watch 6 children. Traveling with the public transport isn’t an option as well, since I need to pick up my older children by car. I’m so sick of sitting in my backyard, or the small playground here. It’s time for something new in the Hoge Vucht”*.



During the interviews the respondents showed appreciation for the playgrounds that were transformed to better playgrounds. For instance, the relatively new playground with the cable car was often mentioned as valuable contribution to the neighbourhood: *“The park located in the centre of Hoge Vucht is a very great addition to the supply of playing facilities for children”*. Still, there are some arguments to be made about this park. Again, the importance of a safe environment is mentioned several times during the interviews: *“If my daughter wishes to go to the cable car, I prefer to go with her. There is dangerous road that she has to cross in order to get there”*.

Figure 13: Example of well rated playground Hoge Vucht

Inclusive play facilities for all ages

Besides the number of playgrounds, four respondents also emphasized the importance of taking the needs of all different age groups into consideration. *“Yes, preferably I would aim for a combination of playground equipment for different age groups. Then I can go to the same playground for both of my sons. The slide here in the playground is so high I can’t even reach it. It is dangerous and many children already fell down of this slide”*. Especially the respondents with children from 0 to 3 argued the lack of facilities available in Hoge Vucht. *“There are not enough facilities for the little ones. As a child you really need to reach the age of four and have the skills to walk and climb, in order to be able to participate at the playground”*. Respondents mentioned that at some places it can be difficult to keep an eye on them. *“The municipality*

recently added water elements to a park. This improves the quality of the park, however it's not safe for very young children, since they have not placed a fence around the water. If you lose sight of your child, there is a chance that they will fall down into the water". As a solution, some respondents have invested in their own garden with regard to play equipment. "I want to play with my child, so for this reason I decided to invest in my own garden. I bought a lot of playground equipment, but I find it fortunate that there are no more public facilities".

Degree of green areas in Hoge Vucht

Respondents were also asked to rate the distribution of green areas in the Hoge Vucht. The figure below shows an overview of the opinions of the respondents regarding the share of greenery in the neighbourhood. A green environment focuses on the proportion of green parks and lawns, the green appearance in the neighbourhood (share of trees and shrubs instead of stones), and the proximity to close nature reserves.

Three respondents indicated that the Hoge Vucht can be seen as a relatively green neighbourhood. The following quote covers the opinion of this group respondents: *"In terms of greenery, I think there is quite a lot in the neighbourhood. Lots of plants and trees. Sometimes you are in Amsterdam and you think 'I miss Brabant, I miss Breda and the green surroundings. I think there is a lot of green".* This quote illustrates the value of the neighbourhood surrounded by nature. Especially the polder 'Vuchtpolder' is mentioned frequently as an added value of living in Hoge Vucht. The Vuchtpolder is located on the border of the built-up area, as shown on the satellite picture below (Google Maps, 2022). The Lage Vuchtpolder has traditionally been a wet, swampy area (see figure 15 for the impression picture). The word 'Vucht' refers to a moist area. It is one of the most valuable wet areas in Brabant. Meadow birds are protected here and get the chance to breed in the spring. You walk along and through the meadows. You will come across sheep, bridges and ditches, according to a respondent. Another stated: *"I think there is a lot of green. But a park or something is missing. Behind this you go into the polder, which is a very nice part to walk. There are many people walking and many people cycling. Many people are there with the dog. I wouldn't walk here in the dark, but during the day it feels very nice to walk here. After dinner you see that a lot of people go for a walk here. People from the neighbourhood next door Waterdonken also come here".* This quote clearly summarizes the meaningful connection between the respondent and the nature.



Figure 14: Satellite picture Hoge Vucht (Google maps, 2022).



Figure 15: Impression picture Vuchtpolder Hoge Vucht (Daalderop, 2020)

Nonetheless, two respondents have a rather critical attitude towards the greenery in the neighbourhood. One argument that has been made is the need for more variation in green spaces in the Hoge Vucht. The following respondent mentioned the opportunity for implementing more variations in plant diversity within the neighbourhood Hoge Vucht: “I

believe there's quite some green in the neighbourhood in terms of trees and bushes, nevertheless I miss flowers in this area. So, more variation in the overall greenery of the Hoge Vucht. I have the idea that Breda is improving in terms of variety in greenery, but Hoge Vucht is lagging behind. For instance, the plants in the playground in our street are full of thorns. My son hurt this cheek because he fell in this plant''.

The other half of the respondents stresses that there is not enough greenery in the Hoge Vucht. During the interviews it became clear that a lot of respondents highlighted the importance of greenspaces, including parks, recreation ground and green playgrounds for children's everyday activities. *"Currently, I miss a recreation park in the Hoge Vucht. Why do I need to go to the city centre to visit a park? The greenest areas are less inviting to sit here with your children, in comparison to other parks in Breda "*. The respondents who mentioned the lack of inviting green recreation parks mentioned that they prefer other locations in the vicinity. Preferred locations that were mentioned are: Brabant Park, Valkenberg park, Teteringen, Dorst and Asterplas. This suggests that a lot of families in Hoge Vucht travel to other locations to visit accessible, safe and inviting green spaces to spent them outside. The Hoge Vucht has the potential to transform to a neighbourhood with a more green character. *"I think we have enough locations in this district that could be transformed to recreation parks. Park Valkenberg is a good example of a successful recreation park. The park is well maintained and is clean. Furthermore, different age groups come together and there is a relaxing sphere''.*

Importance of public facilities in low-income neighbourhood

The average gross annual income in Breda North district is estimated at €22,900. To provide insight into segregation in Breda; the district Breda South is estimated to have an average gross annual income of €37,100 (Alle Cijfers, 2021). During the interviews it became clear how the degree of incomes influences the liveability of households. Especially for low-income neighbourhoods, there is a need for high-quality public spaces or affordable facilities. Moreover, parents should also stimulate their children to play outside. According to Izadi, lower-income parents must focus primarily on the family's day-to day survival. For this reason, children living in lower-income neighbourhoods are more likely to play less. Izadi states that *"making sure their kids get outdoor playtime, may not be the top 1 priority if parents need to focus on working multiple jobs and stressing about bills"* (Izadi, 2012). As stated earlier, there's a high demand for recreation facilities at a short distance, due to limited mobility options or a limited financial status. One respondent explained that her vulnerable financial position affects the choice of the children's activities: *"It's not affordable for me to go to the pool every day during the summer vacations. It can be hot here sometimes, so you look for a place where the children can enjoy themselves. In the Hoge Vucht there is no recreation location during summer. We need to go other locations''.*

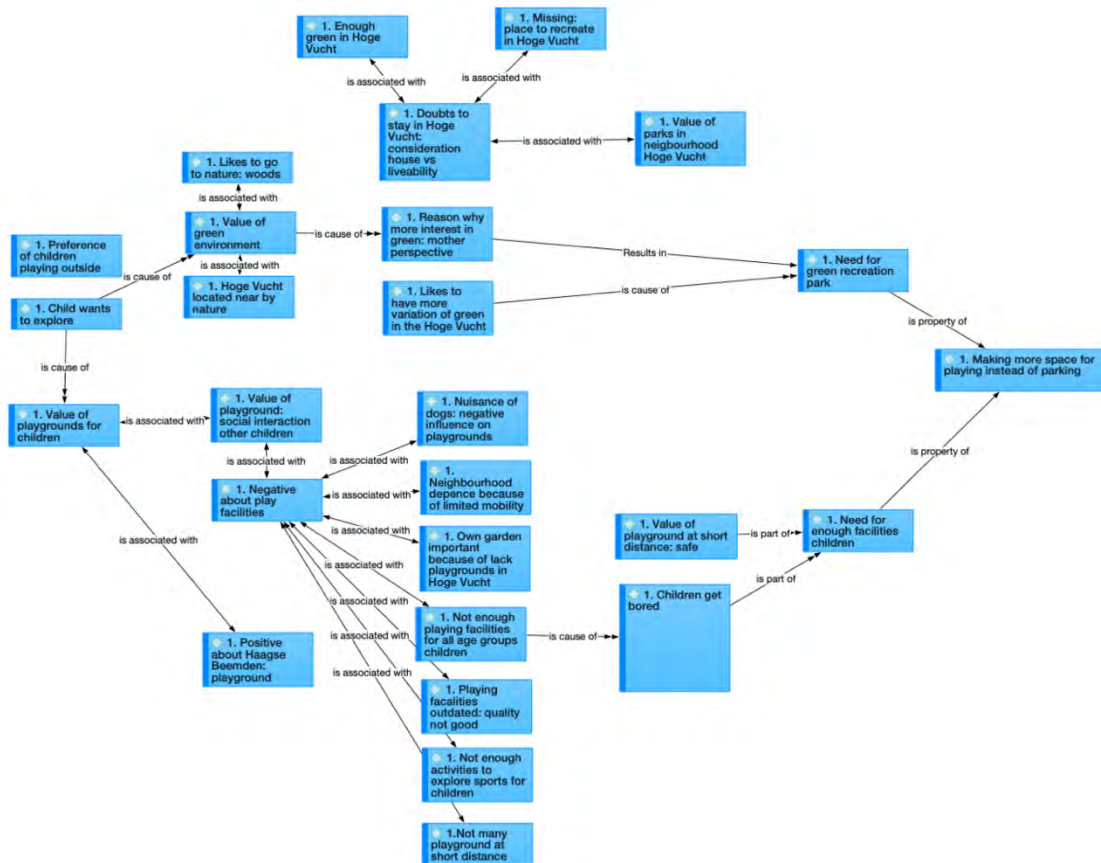


Figure 16: Network Green environment & playgrounds

The network that is presented above, shows the relationships between the variables of the factor playgrounds and green environments. First of all, the network shows that all children of the respondents have the need to explore and this results in a respondents having the preference of green playground. The network shows that there is a need for a bigger green recreation park. The networks also indicates that the quality of the playgrounds could be improved and that respondents value a playground at short distance because this is safer for the children. Additionally, the playgrounds are outdated and the playgrounds should take into account all age groups of children.

4.3 Sense of belonging

The following part of this chapter moves on to describe in greater detail the factor 'sense of belonging'. As described in the theoretical framework, a network of places with meaningful activities where children can experience a sense of belonging. The respondents were asked if their child feels accepted/welcome as a member of a group. A child should be able to participate in family, community, and social life. Therefore, enough various basic services in the neighbourhood are important for children.

Multiculturality

Hoge Vucht is a known as a multicultural neighbourhood, where a relatively large amount of the residents is from countries different from one, they reside in. This means that the inhabitants of Hoge Vucht form a mixed ethnic community where multiple resulting in a high social diversity. The figure below provides an overview of the different migration backgrounds

of the inhabitants of Hoge Vucht. The Moroccan immigrants, western immigrants and the category 'other migration background' represent the largest group of immigrants.

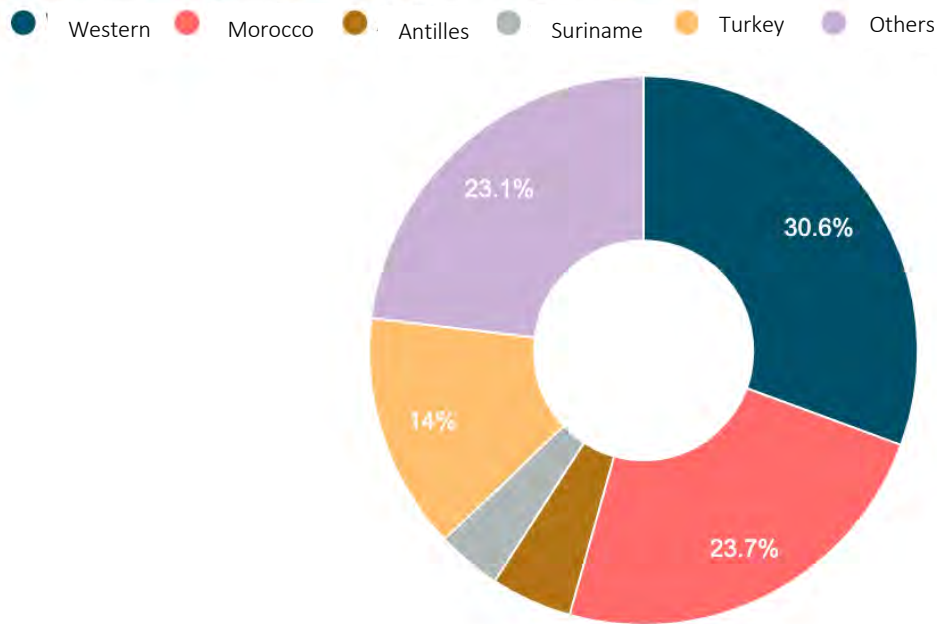


Figure 17: Migration background inhabitants Hoge Vucht (Alle Cijfers, 2021)

This demographic insight, emphasizes the importance of focusing on the social inclusion in Hoge Vucht. This means involving children with a migration background in the integration process as well as the Dutch children. Opinions are divided on how the social inclusion and integration is experienced in the Hoge Vucht. Some respondents believe that the Hoge Vucht is a neighbourhood that is a multicultural area where multiple cultural groups live together peacefully. The following quote illustrates a positive view of a respondent regarding the social integration in Hoge Vucht: *“Until high school I did not see the difference between myself and, for example, a Chinese. My kids don’t see that either. My children go to a black school, as it is called. But my children thrive at the Fountain much better than at John F Kennedy’s previous elementary school. This school offers a lot of quality. There is only a handful of native children, but you can’t see it. I am a stay-at-home mother myself; you can’t even see it when playing outside. Even with playing outside in the neighbourhood, everyone is equal. We help the Moroccan neighbours, Turkish neighbours or Dutch neighbours, it doesn’t matter. And that’s very nice”.*

Another part of the respondents feels barriers in making the neighbourhood more social inclusive. The Hoge Vucht is characterized by a multitude of cultures and a relatively high percentages of people who do not have the ability to speak and write in the Dutch language. Some respondents indicated that they felt a dichotomy between people with a migration background and the native Dutch in the multicultural neighbourhood. For example, some parents experienced cultural differences in terms of raising children in the neighbourhood. For example, some children are allowed at an earlier age to play outside alone, compared to their own child. Some young children do not have parental supervision and their brother or sister is responsible for them while playing outside. *“Especially here in the neighbourhood I think there are many young people who are walking alone outside. I sometimes see 2-year-olds at 8/9 pm walking around with a diaper on the street. Their parents have no idea what they are doing and*

they don't have supervision to hold them accountable for bad behaviour. Sometimes they are outside with older brothers or sisters but they cannot take the responsibility. I think that is the mentality of the children here and the culture". This quote illustrates the different ways of raising children and the different cultures in the Hoge Vucht. The language barrier plays an important role in the integration process and the degree of solidarity in the neighbourhood. Because some children do not speak the language in the classroom or outside on the playing field, Dutch children are more likely to visit children who speak the Dutch language. The language barrier makes it difficult for children with a migration background to make contact. Other residents indicated that they experience a mixture of cultures in the neighbourhood and that there is a great social bond in the city. The neighbourhood should be a pleasant environment for children with a migration history. At the same time, children without a migration history should also be involved in outdoor play. By facilitating a wide range of play options at various points in the neighbourhood, encounters between children are stimulated. At the same time, children without a migration history should also be involved in outdoor play. By facilitating a wide range of play options at various points in the neighbourhood, encounters between children are stimulated.

4.4 Social interaction

The last factor that has been researched in the Hoge Vucht is 'social interaction'. Respondents were being asked to give their opinion about the facilities for children and to what extent this contributes to a social environment. A playground for instance provided the perfect opportunity for children to practice and develop their social skills. Social play stimulates children to deal with social justice challenges and develop meaningful relationships with other.

Equal sport participation

For children it's important to adopt an active and healthy lifestyle and to grow up in a neighbourhood that has enough sport facilities. Sufficient cycle paths, footpaths, playing field and playgrounds make outdoor activities safer and more fun for children (Rijksoverheid, 2021). All respondents consider that sport activities at outdoors or at sport clubs can contribute to the social development of their child. The program 'discover your talent' was mentioned relatively often during the interviews. The following quote illustrates the value of children discovering sports: *"Breda offers a program called 'discover your talent'. Children are able to discover different sports. This is organised by the municipality. In my opinion, this is a very good way to make children familiar with sports. Unfortunately, for many sports we need to go to other neighbourhoods. For example, the neighbourhood does have a gymnastics school or a dancing school. I think if we had more sport facilities in Hoge Vucht children will also have more opportunities to meet other children".* The 'discover your talent' program is designed to challenge children to try different forms of sports. Every type of children is able to find a sport they like. Nonetheless, the Hoge Vucht is not associated as a neighbourhood with a lot of sport facilities. *"When I was searching for sport facilities in Breda, the Hoge Vucht does not promote themselves as a area with a lot of sport clubs or facilities".*

Other respondents mentioned that the Hoge Vucht does have sport facilities but they can not afford this easily. *"If you live in Breda and have a low income, you can apply for the free BredaPas. This is discount card and you are able to request a contribution for your children for*

school stuff, sport lessons or a day trip. I am not eligible for a BredaPas, since they do not take into account my liabilities but only focus on how your income is. The BredaPas needs to become more accessible. I cannot always afford social activities for my sons and I don't want them to miss out on things". Another statement shows the importance of support of organisations for low-income household, so children can participate in sport activities and play with other children: *"Fortunately we had a conversation with the sport fund, we now receive a contribution for swimming lessons. Otherwise, the swimming lessons for my children could not be paid"*. Hoge Vucht has a high number households with a low income. That is precisely why it is important to have high-quality public space and affordable facilities in the neighbourhood. This following quote illustrates the need for better amenities in the neighbourhood: *"I don't have the money to go to the pool every day in the summer with my kids. I regret that there are not many facilities in the area. You have a children's farm, but for many facilities I still go outside the neighbourhood"*. These quotes shows that lower-income parents are less likely than higher-income parents to involve their children in sports because of financial obstacles such as rising costs of sport activities or having financial debt. The BredaPas is already an existing program that helps low-income families to increase their children's participation in sports by reducing the costs. Still there is more needed to decrease the sports participation gap between youth from lower-income and middle/high-income families.

Playgrounds

Playgrounds are associated as places that stimulate social interaction between children, according to all respondent: *"Yes the playground is a good place to meet other children, having fun and engaging with other children is important for young children"*. Respondents were being asked if the playgrounds in Hoge Vucht are suitable to be used for children (see figure 18). 2 respondents are positive about the playgrounds in this neighbourhood. As stated by the following respondent: *"I think the playground is the best way for children to make new friends and develop their social skills. My son likes to play outside with his classmates, they also live in this part of the neighbourhood so it's good that he has his friends close by"*. 3 respondents claim that the playgrounds are not safe so they play less in Hoge Vucht. This quote shows the importance of safe playgrounds in order to meet other children in the neighbourhood: *"Because some streets are not safe enough, I don't allow my daughter to go alone to the playground. I do understand that not every street can have its own playground, but in our street, we have a lot of children living here. Now I often go to other neighbourhoods to play with my child"*. 5 respondents stated that they were not satisfied with the atmosphere in Hoge Vucht, so they chose to visit other playgrounds in the vicinity: *"I regularly visit playgrounds outside Hoge Vucht. He is an only child so I think it's important for him that he comes into contact with other children. I also often go to Avontura or Monkey Town. I just don't like the environment and ambiance in this neighbourhood"*

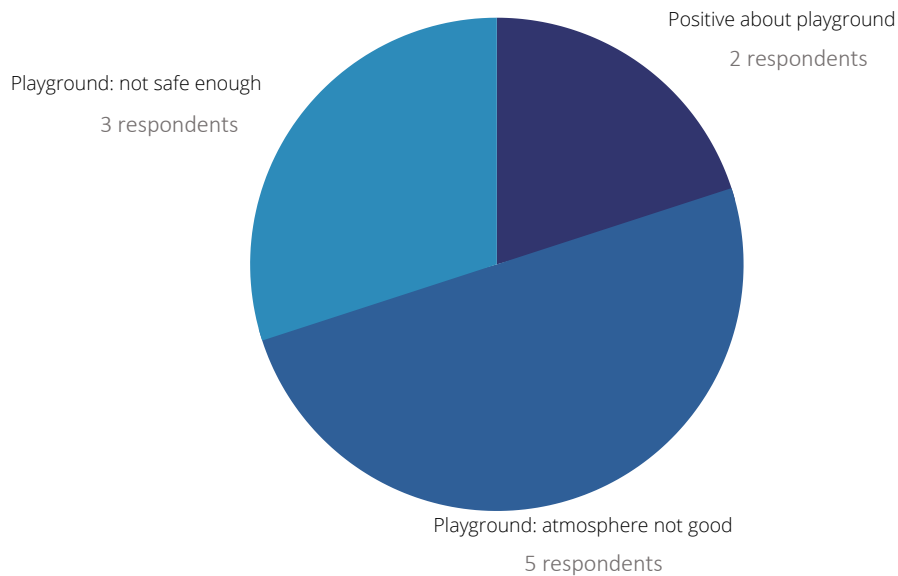


Figure 18: Playgrounds in Hoge Vucht opinion respondents

Social cohesion in Hoge Vucht

Strengthening the social cohesion in a neighbourhood can improve the liveability. Four out of ten respondents associate the Hoge Vucht as a community-based neighbourhood with a high social cohesion: *“It’s a very close neighbourhood, almost everyone knows each other. That’s the reason why I like Hoge Vucht so much. Of course, there are people living here who don’t like to have a lot of contact with neighbours. Especially parents living in this area have a lot of contact. When our children are playing outside, we all take the responsibility to lookout for suspicious behaviour of other people. For instance, people driving too hard or bothering our children”*. The need to watch out for each other’s children created a bond between parents. Another respondent mentions that you have the same shared values as parents, since you perceive the neighbourhood from a child friendly perspective.

Two respondents mention that they only have good contact with their neighbours in the street: *“We mainly know the people living here in the street. I would like to live in a residential area, with a shared playground for children. This stimulates meeting other people for both parents and children”*. Next to more shared playgrounds, the importance of community centres and neighbourhood parties are also often mentioned by the respondents: *“We used to have neighbourhood events a lot. Such as an outdoor play day for children. Many inhabitants came together. The last couple of years there are less activities in the neighbourhood”*. Another respondent describes the social cohesion as an important factor that can positively impact children’s outdoor play. This quote suggests that neighbourhood social cohesion may be particularly important characteristic to stimulate children’s outdoor play and engage with each other. During the interviews it also became clear that community centres are highly valued by parents living in the Hoge Vucht: *“Once a month they organize activities for children in the community centre such as cooking together. I think a lot of parents do not know it exists and still a lot of other activities in the community centre are organized for old people. It would be a valuable addition if the activities in the community centre could be more focused on children and also would be more promoted”*. The financial status of parents also plays a role in the social activities of children. *“Some parents can’t afford the activities in the community centres or other*

activities. I do understand that activities cost money, but some people do not have enough money and other priorities. Children should not bear the consequences of the financial situation of their parents. Children need to play and engage with other children during activities". Besides the playground, sport activities and the community centre the public library is also frequently mentioned by the respondents. The following quote expresses the value for children of a public library in the neighbourhood: "I am not going to the library at the moment since I need to go to the city centre for that. I believe children should have the possibility to go to the library by bike with their friends. I can take the car to visit the library but not all parents have a car". The old library disappeared in Hoge Vucht due to cost cutting. The respondents mentioned that the plans have been made to invest in a new public library in Hoge Vucht: "I think a library is very valuable for children who do not speak the Dutch language. The library can help them to get familiar with the language with other children. Libraries for children are essential for information and their development. I am very satisfied that the public library is coming back". The public library disappeared in 2013. The municipality interviewed a lot of respondents and they all aimed for a new public library.

The other four interviewed respondents felt a lower sense of social cohesion in their neighbourhood. What is interesting in this group is the nuisance caused by people living in the apartment or due to cultural differences. This quote illustrates the nuisance negatively affecting the social cohesion: "My neighbour recently tried to set his house on fire. And the neighbours that just left made noises that were consistent with domestic abuse. They were screaming to each other. This is not a good environment for my daughter". Cultural differences are effecting the way how children play outside: "I feel like the children that live here don't match with my child. They have another culture and they have other values, my daughter plays with her classmates in Teteringen".

4.5 Citizen participation

Stigma of vulnerable neighbourhood Hoge Vucht

The Hoge Vucht is described as 'vulnerable neighbourhood'. According to some respondents many negative reports in the media about the Hoge Vucht have contributed to a negative stigma around the Hoge Vucht. The negative media attention amplifies and cements the quotidian prejudices that are experienced by people living in the 'vulnerable' neighbourhood Hoge Vucht. The following quote illustrates the malign effects of stigma: "The Hoge Vucht is always represented as a negative neighbourhood with a lot of problems, while there are plenty of people who love to live here. That's fortunate, we as inhabitants are confronted with the stigmatizing labels such as deprived area and negative narratives in our everyday lives. Ofcourse, a lot of things could be improved in the Hoge Vucht. But we should focus on the optimistic mindset". Another respondent states that she feels devalued because of the negative reputation of the Hoge Vucht. "The negative stigma also determines the actions the municipality takes for our neighbourhood. Right now, the focus is mainly on making sure the neighbourhood is safe and there is not enough attention for the public spaces and the facilities for inhabitants".

Nevertheless, the negative news regarding Hoge Vucht is there for a reason. According to some residents, the problems in the neighbourhood are getting worse and the liveability is under pressure. Inhabitants who experience disturbance have concerns such as cars driving too hard, young people causing nuisance, vandalism and pollution. Respondents emphasize a more

targeted deployment of police in the neighbourhood and more police enforcement. The following quote shows the importance of police enforcement to guarantee a safe neighbourhood for the children living in Hoge Vucht: *“When the police is needed, they are not present. And if the police are active, I mainly see them handing out fines for people who parked their car not correctly. I would prefer more enforcement from the police to tackle the nuisance in the Hoge Vucht”*. Another quote illustrates this issue *“I also understand that the police don’t know what to do anymore. Young people are pushing the boundaries of the police. When I was young, you were scared of the police, even if you had not done anything you still got nervous. Today’s young people here really don’t care, they are more confrontational and bored so they start with acting inappropriate behaviour”*.

Need for more citizen participation

De Hoge Vucht is a neighbourhood with many children. There is therefore a lot of involvement from parents and a wide range of ideas on how to transform the neighbourhood into a more child-friendly neighbourhood. Taking in mind the arrival of the ‘Environment and Planning Act’ (Omgevingswet), that is expected to come into force on 1 January 2023 it will become more important to involve inhabitants (IPLO, 2022). The Environment and Planning Act combines and modernises laws for spatial planning, housing, infrastructure, the environment, nature and water. This new law aims to stimulate citizen participation and reduce the gap between the state, civil society and the market. There is a need for more citizen participation in the Hoge Vucht. A more collaborative governance and more citizen participation is also a need in the Hoge Vucht. Mainly respondents feel a sense of commitment to their neighbourhood and would like to be more actively involved activities to improve the quality of life in the Hoge Vucht. Citizen participation stimulates the municipality to effectively engage with citizens and stakeholders to source ideas about the redevelopment of the public space and facilities in the Hoge Vucht. *“For instance, the playground that belongs to the schoolyard, it was burned down in Dance. The situation was dangerous, the playground was surrounded with fences that were dangerous. I asked the municipality several times to take action and make it a safe playground again”*. Another respondent mentions that she took the initiative to renovate the playground in her street with new playing attributes. The municipality eventually replaces the outdated attributes. She states that adding new playing attributes can really improve the quality of the environment. The majority of the respondents claim that they would like to be more engaged in the development of the Hoge Vucht: *“It takes a very long time before you get a response or they do something about the problem. I also known some neighbours don’t raise anything because they believe the municipality takes not enough action. I believe a lot of people do want to raise their voice and tell their opinion about the neighbourhood, but the municipality should encourage this more”*. As local residents in the Hoge Vucht wants to be more involved, the role of the government needs to adapt and take greater account of initiatives and wishes in the community. The following respondent emphasizes that she is committed to her neighbourhood and is actively involved in activities to improve the community cohesion and safety in Hoge Vucht: *“I am one of the first people that is called when there are problems in the neighbourhood. I am a trustworthy person in the neighbourhood but the engagement should come from both sides. I would also like to talk about how to deal with the housing shortage and ideas for new facilities for our children”*.

As stated in earlier reports of ‘Verbeter Breda’ there is a lot of ‘system thinking’ and not enough thinking from a human perspective. *“I am somewhat stuck between two sectors. I am not*

entitled to social housing, but I cannot afford buying an owner-occupied house. Instead of listening to your situation, the rules and systems decide what can be done for you". This quote illustrates the need to include inhabitants of the Hoge Vucht and take the perspectives of inhabitants into account for reshaping the neighbourhood. *"Yes, I would like to be more involved and engage with the municipality. Sometimes I have brochures in my mailbox with questions about the neighbourhood. So, the municipality does organize things in the neighbourhood to involve the inhabitants. But there is still not enough attention for seeing things from the child friendly perspective".* A good example of citizen participation that is already happening in Hoge Vucht is the project for the public library in Hoge Vucht. About 130 residents of Breda-Noord took part in a survey regarding the liveability in Hoge Vucht. These residents mentioned they were missing a library in Hoge Vucht. The municipality of Breda invited them to visit other public libraries in other cities to become inspired for the design of the new public library in Hoge Vucht. About 3 million euros has been aside for this project (Breda Vandaag, 2022).

Involving youth in citizen participation process

Taking every age group into consideration also includes providing facilities for youth. The playgrounds in Hoge Vucht are now often claimed by youth because they are bored. The following quote illustrates this challenge: *"We need to look at what the needs are for the young people. If the older children/youth are causing less problems in the neighbourhood, the liveability of young children will automatically improve".* Seven respondents of the ten respondents believe that investing more in youth involvement while creating public spaces, can contribute to a safer neighbourhood with better playgrounds for their children. According to Millard, too often young people between 12 and 25 are not included in the process of placemaking and end up loitering in other spaces in the neighbourhood (Millard, 2015).

5. Analysis

Chapter 4 summarizes the data collected from the interviews that were conducted for this research. This chapter provides an overview of the interpretation of the data by using the theoretical framework. The theoretical framework helps to build findings inductively from raw data to a conceptual understanding and an answer on the research question. The formulated research question was: "Which factors contribute to the development of a positive place attachment and sense of place of children living in the neighbourhood Hoge Vucht and why?"

5.1 Factors place attachment

In this paragraph the current attitude of the parents towards the neighbourhood Hoge Vucht will be outlined to answer the first sub-question: *"What's the current attitude of the parents towards the neighbourhood Hoge Vucht focusing on the liveability of their child?"*. Besides that, the importance of place attachment and sense of sense of place will be discussed. These insights will answer the second question. The second sub-question was formulated as: *"What aspects in the living environment in Hoge Vucht influence (both negatively as well as positively) the sense of place and the place attachment of children and why?"*

Safety and security top priority

The caring attitude of the respondents results in the importance of a safe and secure environment for their child. The factor 'safety and security' is considered as the top priority when it comes to a good neighbourhood for their children. 8 respondents formulated 'safety improvement' as most important factor that influences the liveability of their children. Relph's theory on the concept of place (1976), states that a sense of place comes from a feeling of connectedness (in a physical, emotional, or spiritual way) to a particular geographic area. How is a feeling of connectedness to the Hoge Vucht developed and how do children experience this neighbourhood? The interviews were partly focused on asking the parents how children experience the environment of the Hoge Vucht. The theoretical framework revealed that children and youth experience places and space differently compared to adults. Children use and experience the public space of a neighbourhood differently and play a lot of the time in the outdoor environment, compared to adults (Nordström, 1990). The respondents claimed that their children are using the public space indeed very frequently and emphasized the value of children's access to safe public space.

In this research, safety is divided into two categories: traffic safety and public safety. During the interviews it came forth that the high traffic volume in the neighbourhood and the high vehicle speed are of the main reasons children and parents feel unsafe. In the theoretical framework it was stated that car-dominated streets and cars driving too fast can be a barrier to creating a safe and secure environment (Krishnamurthy et al., 2018). It can be concluded that there's a relationship between traffic safety and a safe and secure environment. The areas that were associated as safe and secure places for their children to play where areas in which cars were not dominating the street. Parks, playgrounds, or residential demarked areas especially made for children playing outside. The respondents prefer more streets in which cars are prohibited and giving priority to young children to play. The respondents feel a responsibility to ensure that their children can play safely in the neighbourhoods. The benefits of more pedestrian-friendly areas were formulated in the theoretical framework. A high level of street safety and a

more pedestrian-friendly design is often linked to the possibility for children to play free and be careless in the neighbourhood (Veitch et al., 2006). The walkability and street connectivity of a neighbourhood also improves when there is more space for human activities. Children will further develop their social network and it also fosters nurturing child-caregiver interactions (Christian et al., 2017). Some of the respondents were aware of the fact that they limited their child to play outside in particular areas because of possible dangerous situations. They found that there were too much dangerous roads that they need to cross. Because of their responsibility, they often decide to take measures to ensure their safety. This includes not letting them walk or cycle alone or making a selection of safe areas and allowing their child to go to these areas alone.

The second type of safety focuses on public safety in the neighbourhood. Respondents were also asked to rate the public safety in Hoge Vucht. It can be concluded that a high sense of public safety in the neighbourhood is also an important condition to ensure the safety of children. The theoretical framework showed that the parents' perception of safety and fear of crime is associated with the choices parents make about playing outside (McDonell, 2007). In Hoge Vucht, there is indeed a relationship between the association of neighbourhood safety and the ability of children playing outside. According to McDonell, parental concerns increase when there's a high presence of risks in a neighbourhood. The perception of fear is associated with violence and different kinds of criminal activities (McDonell, 2007). According to, "parents living in neighbourhoods they perceived as safe were significantly more likely to have their children walk or bike from school, irrespective of the gender of the child" (Salahuddin et al., 2016, p. 1303). The respondents claimed that the safety is influenced by the public nuisance that is created by the youth living in the neighbourhood. Destruction of the public space, vandalism, producing waste (such as drug waste) and taking over the playground of children were often mentioned as actions that negatively influenced the sense of safety. On the other side, the respondents recognized the social networks in the Hoge Vucht as positive aspect for enhancing the public safety in the neighbourhood. According to Pebley & Vaiana (2002) social networks play an important role in improving the social support among inhabitants and consequently increasing feelings of safety. Criminology researchers claim that when families in neighbourhoods collectively maintain safety in their neighbourhood by watching the children's behaviour the violence in the community will reduce (Morenoff et al., 2001). Looking at the findings of this research, social control and the social cohesion have a positive impact on improving the degree of safety in a neighbourhood. The respondents feel a shared responsibility to guarantee the safety of each other's children.

Value of greenspace and playgrounds

A safe and secure environment is the most important factor that influences a positive place attachment of children towards the neighbourhoods Hoge Vucht. To make sure children can play outside and further develop their social skills the environment should be safe enough. First of all, the respondents value playgrounds and a green environment due to various reasons. In the theoretical framework it was stated that children develop their sense of place during early childhood. How they experience the public space in terms of playing is important for the development of place attachment. As stated earlier, children play a lot of the time in the outdoor environment, compared to adults (Nordström, 1990). Gandy states that children developed their sense of place during early childhood. Their curiosity to discover the world around them with their senses explains their explorative perspective (Gandy, 2007). Scientist

Björklid (2012) further explains that children can be characterized as a group with a sense-oriented relationship to the physical environment they are living in. In addition, they have a strong physical interest in the environment and their orientation to the world is strongly influenced by sense impressions (Björklid & Nordström, 2012). These theories show the importance of enough high-quality playgrounds and a green environment to discover the world around them. The respondents indeed mentioned the curiosity of their children to explore the environment and their preference to play outside.

The data of this research shows that the importance of public space in deprived areas such as Hoge Vucht is even more important. First of all, Hoge Vucht is a neighbourhood with a relatively high number of children living here. Secondly, some children in the neighbourhood are very much dependent on the playgrounds because of a limited playing area at their own house. For instance, some respondents mentioned that they were living in a flat and did not own a garden. Besides that, Hoge Vucht is also known as a low-income neighbourhood. Some respondents claimed that they did not have enough money to pay a lot for recreation facilities. Limited mobility was also a reason for a high demand for affordable/free recreation facilities in the public space at a short distance. Most respondents found that there are not enough playgrounds for the number of children living in Hoge Vucht or the playgrounds were not safe enough. Next to this, the respondents stressed the importance of taking needs of all different age groups into consideration when designing a playground. Especially for younger children, playgrounds are often too dangerous or not accessible. The respondents had a different opinion about the amount of greenery in the neighbourhood. Three respondents indicated that the Hoge Vucht can be seen as a relatively green neighbourhood. Nonetheless, two respondents have a rather critical attitude towards the greenery in the neighbourhood. One argument that has been made is the need for more variation in green spaces in the Hoge Vucht. The remaining five respondents of the respondents' stresses that there is not enough greenery in the Hoge Vucht.

The collected data also revealed a relationship between greenspace and playgrounds and the sense of belonging. In the theoretical framework it was stated that the presence of nearby green in the neighbourhood multiplies the opportunity to create friendships and develop socio-cognitive skills (Hay et al., 2007). This theory claims that a green environment stimulates children to foster social interaction and facilitate prosocial behaviour development in their early years of growing up. The respondents did mention the relationship between a green environment and their social development. The green parks as well as the playgrounds were associated as places where children can meet each other and build social relationships with other children.

Social interaction and sense of belonging improves safety

The factors social interaction and sense of belonging are closely linked to each other and for this reason written as one part. According to Epstein, developing a sense of place is associated with the degree of a sense of belonging. Epstein claims that when children feel accepted as a member of a group, their overall social and emotional development will improve (Epstein, 2009). According to Edwards, children develop and experience attachment with people from the moment they are born. A sense of belonging and positive consistent relationships contributes to a feeling of safety and security. When a child is able to build these close connections, the parental perception of the neighbourhood also improves positively. For

instance, parents' willingness to let their kids play in the neighbourhood is likely to depend on how the neighbourhood facilities for children (parks and playgrounds) are experienced. Social processes such as creating a sense of belonging can play an important role in the considerations of parents when deciding which environment is in the best interest of their child (Edwards, 2016). Earlier in this chapter it became clear that the respondents recognized the social networks in the Hoge Vucht as positive aspect for enhancing the public safety in the neighbourhood. The theory of Edwards can also be proven right for the case of Hoge Vucht. The sense of belonging and positive consistent relationships improves the degree of safety. Consequently, when parents experience that the environment is safe enough, the children are also allowed to play more on their own. Parental concerns increase when there's a high presence of risks in a neighbourhood (McDonnell, 2007). The attitude of parents living in Hoge Vucht is extremely important and influences the way how their children use the public space in the neighbourhood.

In the previous chapter, it became clear that Hoge Vucht is a known as a multicultural neighbourhood, where a relatively high amount of the residents is from countries different from one, they reside in. This means that the inhabitants of Hoge Vucht form a mixed ethnic community where multiple resulting in a high social diversity. The figure below provides an overview of the different migration backgrounds of the inhabitants of Hoge Vucht. The Moroccan immigrants, western immigrants and the category 'other migration background' represent the largest group of immigrants. The opinions about how the social inclusion and integration is experienced in the Hoge Vucht vary from respondent to respondent. Some respondents believe that the Hoge Vucht is a neighbourhood that is a multicultural area where multiple cultural groups live together peacefully. The other part of the respondents feels barriers in making the neighbourhood more social inclusive. Some respondents indicated that they felt a dichotomy between people with a migration background and the native Dutch in the multicultural neighbourhood. For instance, the language barrier or a cultural difference in raising children were mentioned as causes for the dichotomy. Strengthening the social cohesion in a neighbourhood can improve the liveability. The respondents were also asked how they experienced the social cohesion in the neighbourhoods. Four respondents associate the Hoge Vucht as a community-based neighbourhoods with a high social cohesion. Two respondents mentions that they only have good contact with their neighbours in the street. The other four interviewed respondents felt a lower sense of social cohesion in their neighbourhood. All respondents did acknowledge that a good social cohesion positively influences the liveability of their children.

Citizen participation as fifth factor

The factors safety & security, sense of belonging, playgrounds and green spaces and social interaction were included in the theoretical framework. After the interviews were conducted, another factor also appeared. The citizen participation also influences the development of place attachment of children living in Hoge Vucht. In the previous chapter it has already been illustrated that there is a need for more citizen participation in the Hoge Vucht. A more collaborative governance and more citizen participation is also a need in the Hoge Vucht. Many respondents feel a sense of commitment to their neighbourhood and would like to be more actively involved activities to improve the quality of life in the Hoge Vucht. Citizen participation stimulates the municipality to effectively engage with citizens and stakeholders to source ideas about the redevelopment of the public space and facilities in the Hoge Vucht. The respondents

all agree on the fact that there are a lot of parents living in the Hoge Vucht who have wide range of ideas on how to transform the neighbourhood into a more child-friendly neighbourhood.

In the theoretical framework Alamdari and Habib (2012) emphasize the importance of designing neighbourhoods that meet the needs of children. In research from Alamdari and Habib (2012) children are considered a 'vulnerable group' that is still rather underappreciated in urban design. Alamdari and Habib claim that there is little knowledge about this vulnerable group and their different ways of enjoying public space. Various studies have researched the citizen participation, but this was mainly focused on adults instead of children. Recent scientific literature raises awareness of inviting children to the process of placemaking, to build a better relationship with their living environment and acquiring a sense of belonging. Designing outdoor play activities and public spaces that are meaningful to children can increase a sense of place with their living environment (Slingerland et al., 2018). Taking in mind the arrival of the 'Environment and Planning Act' (Omgevingswet), the future transition of citizen participation and engagement becomes more important and citizens need to take responsibility for their neighbourhoods and express their needs.

Placemaking is a well-known phenomenon that has already been largely recognized in the world of urban development. According to Project for Public Spaces, placemaking contributes to a stronger connection between the people and the places they share. The main goal is to maximize shared value by reshaping the public realm in a collaborative sphere (Project for Public Spaces, 2018). As stated earlier, too often young people between 12 and 25 are not included in the process of placemaking and end up loitering in other spaces in the neighbourhood (Millard, 2015). Taking every age group into consideration also includes providing facilities for youth. Involving inhabitants in the placemaking process should also be focused more on taking the needs of youth into consideration.

According to some respondents many negative reports in the media about the Hoge Vucht have contributed to a negative stigma around the Hoge Vucht. The negative media attention amplifies and cements the quotidian prejudices that are experienced by people living in the 'vulnerable' neighbourhood Hoge Vucht. Young teenagers in the Hoge Vucht can be negatively influenced by this stigma. Studies carried out by the Dutch Government indeed show that there is a growing concern about the inequality of opportunity in Dutch cities especially, for children. Being born in a vulnerable neighbourhood has a negative impact on the rest of children's lives in terms of opportunities in life. The neighbourhood that a child grows up in impacts the social and emotional well-being of a child (Rijksoverheid, 2021). Creating a better connection between youth and their living environment could improve the liveability of the neighbourhood Hoge Vucht, since they will better behave themselves. Seven respondents believes that investing more in youth involvement while creating public spaces, can contribute to a safer neighbourhood with better playgrounds for their children. This is a promising insight, taking youth seriously and involving them in the placemaking process could be an important factor that increases the place attachment for themselves as well as for young children.

5.2 Place attachment and sense of place in Hoge Vucht

The third sub-question was formulated as follows: *“To what extent does place attachment influence the child-friendliness in the Hoge Vucht and why?”*. The following paragraph provides a clear answer on this research question.

Place attachment and early childhood

As stated in the theoretical framework, place attachment can be defined as: a set of feeling about a geographical location that emotionally binds a person to that place as a function of its role as a setting for experience (Rubinstein & Parmelee, 1992, p. 2). According to Spencer & Wooley (2000), children gain their personal identity through their place attachment. Jack further emphasizes that positive cognitions linked to a specific place have an influence on the place attachment of children at a very young age: “From a very young age, children develop (initially unconsciously) positive and negative feelings about their everyday surroundings. Place attachment depends on developing clusters of positive cognitions linked to the meaning of specific places” (Jack, 2008, p.758). All the respondents acknowledge that the neighbourhood in which their children grow up in affects the development and future of their child. Despite the fact that the respondents had diverse views about the neighbourhood Hoge Vucht, the interviews also revealed that they all examined the neighbourhood from a caring perspective. Their caring characteristics were expressed during the interviews and it became clear that they assess the neighbourhood by looking what’s best for their child. It can be concluded that an area that has a positive influence on the development of place attachment for children, increases the degree of child-friendliness. The respondents all agree on the fact that their children should feel connected to the neighbourhood they are living in. When a geographical location emotionally binds a person to that place, the place attachment of children will be developed in a positive way. When a child is able to build these close connections, the parental perception of the neighbourhood also improves. The findings of the results also showed a positive relationship between the variable ‘child-friendly environment’ and the variable ‘Liveability in neighbourhood for all’.

5.3 Redefined conceptual model

The data that has been collected resulted in an updated version of the conceptual model. Figure 19 shows the old conceptual model that was developed before the data collection. Figure 20 has taken into account the changed relationships between the variables that have been discussed in the previous section. First of all, the new conceptual model includes a new variable called citizen participation. This variable has been added to the conceptual model since this influences the sense of place and place attachment of children. During the interviews it became clear that respondents (the parents of the children) agreed that the place attachment of the children could be stimulated when the parents and children would be more involved with citizen participation. The second change in the new conceptual model focuses on the relationship between the variable safety and security and sense of place and place attachment. The outcomes of the research showed a stronger relationship between these variables. The respondents believe that the safety and security in the neighbourhood is the most important factor to stimulate a positive place attachment. The other variables (sense of belonging, green space and playgrounds and social interaction) all influenced the place attachment on the same degree and can be seen as equal relationships.

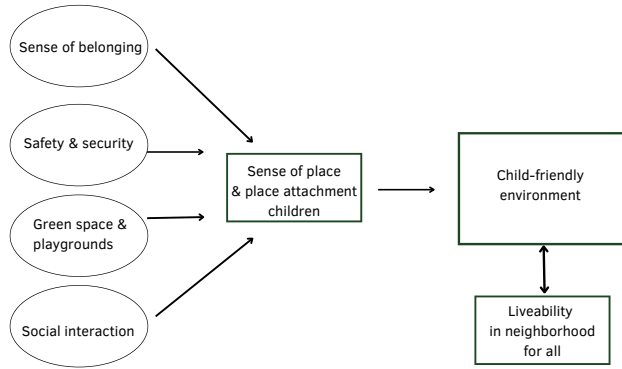


Figure 19: Old conceptual model

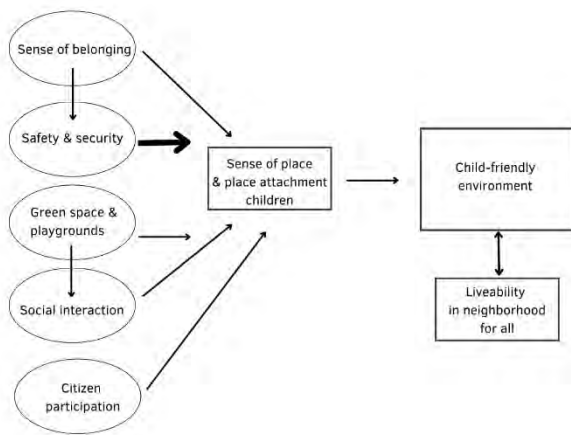


Figure 20: Redefined conceptual model

6. Conclusion & discussion

This chapter finishes this thesis by presenting the concluding remarks, the limitations of this research, and by making recommendations for further research in the future.

6.1 Conclusion

This research that is presented in this master's thesis, gives answer on the following main research question: *"Which factors contribute to the development of a positive place attachment and sense of place of children living in the neighbourhood Hoge Vucht and why?"*. This research is conducted by interviewing parents of children between the age 0-12 years living in Hoge Vucht. Interviewing these parents allowed me to gather a deeper understanding of the lived experiences of their children in this neighbourhood. The concluding remarks are presented in this paragraph.

Factors enhancing place attachment

Children use and experience the public space of a neighbourhood differently and play a lot of the time in the outdoor environment, compared to adults (Nordström, 1990). The respondents claimed that their children are using the public space indeed very frequently and emphasized the value of children's access to safe public space. Their caring attitude results in the importance of a safe and secure environment for their child. The factor 'safety and security' is considered as the top priority when it comes to a good neighbourhood for their children. The factor safety can be divided into traffic safety and public safety. During the interviews became clear that the high traffic volume in the neighbourhood and the high vehicle speed are of the main reasons children and parents feel unsafe (traffic safety). In the theoretical framework it was stated that car-dominated streets and cars driving too fast can be a barrier to creating a safe and secure environment (Krishnamurthy et al., 2018). This assumption is right for this case, and it is true that car-dominated streets are a problem in Hoge Vucht. It can be concluded that there's a relationship between traffic safety and a safe and secure environment. Next to this outcome, the research also revealed insights on the experienced public safety in the neighbourhood. The second type of safety focuses on public safety in the neighbourhood. Respondents were also asked to rate the public safety in Hoge Vucht. It can be concluded that a high sense of public safety in the neighbourhood is also as an important condition to ensure the safety of children. The theoretical framework showed that the parents' perception of safety and fear of crime is associated with the choices parents make about playing outside (McDonell, 2007).

The results of the research also shows that the importance of public space such as playgrounds and parks in deprived areas such as Hoge Vucht is even more important. This neighbourhood has a relatively high number of young children living in this area. Besides this demographical insight, some children in the neighbourhood are very much dependent on the playgrounds because of a limited playing area at their own house. Lastly, Hoge Vucht is also known as a low-income neighbourhood, and this asks for affordable public spaces and the possibility for children to participate in the neighbourhood. To make sure children can play outside and further develop their social skills the environment should be safe enough. Several theories show the importance of enough high-quality playgrounds and a green environment to discover the world around them. The respondents indeed mentioned the curiosity of their children to explore the environment and their preference to play outside.

Most respondents believe that there are not enough playgrounds for the number of children living in Hoge Vucht or the playgrounds were not safe enough. Next to this, the respondents stressed the importance of taking needs of all different age groups into consideration when designing a playground. Especially for younger children, playgrounds are often too dangerous or not accessible. There was a positive attitude of parents about the amount of green in Hoge Vucht and the geographical situation of the neighbourhood close to the polder. The data analysis also showed a relationship between greenspace and playgrounds and the sense of belonging. The theory of Hay et., al (2007) states that that the presence of nearby green in the neighbourhood multiplies the opportunity to create friendships and develop socio-cognitive skills (Hay et al., 2007). This theory claims that a green environment stimulates children to foster social interaction and facilitate prosocial behaviour development in their early years of growing up. It can be stated that the green parks as well as the playgrounds were associated as places where children can meet each other and build social relationships with other children.

It already has become clear that the variable safety has the biggest influence on the place attachment of children living in Hoge Vucht. The other factors all influence the place attachment with the same degree. The factors social interaction and sense of belonging are closely linked to each other. The respondents associate the social networks in the neighbourhood as a positive and it has positive effect on the public safety in the neighbourhood. The theory of Edwards can also be proven right for the case of Hoge Vucht. The sense of belonging and positive consistent relationships improves the degree of safety. Consequently, when parents experience that the environment is safe enough, the children are also allowed to play more on their own. Parental concerns increase when there's a high presence of risks in a neighbourhood (McDonnell, 2007). The attitude of parents living in Hoge Vucht is extremely important and influences the way how their children use the public space in the neighbourhood. According to Edwards, social processes such as creating a sense of belonging for their children can play an important role in the considerations of parents when deciding which environment is in the best interest of their child (Edwards, 2016). For the case of Hoge Vucht, this theory can be proven. The sense of belonging and positive consistent relationships improves the degree of safety. Also, Hoge Vucht is seen as multicultural neighbourhood. The respondents have different opinions about the process of social inclusion and the social interaction and integration that is experienced in the neighbourhood. Nonetheless, all respondents did agree that a good social cohesion positively influences the liveability of their children.

The results of this research shows that the factors safety & security, sense of belonging, playgrounds and green spaces and social interaction have an influence on the development of place attachment of children living in the Hoge Vucht. The factor safety and security has the biggest influence. The variable citizen participation has also been added to the conceptual model and also influences the development of place attachment of children living in Hoge Vucht. There is a need to become more involved as parents in the decision-making process with regard to the development of the neighbourhood.

Place attachment and concept of child-friendly neighbourhoods

According to the theoretical framework, place attachment is a collection of feelings about a place that emotionally ties a person to that location because of its function as a backdrop for experiences (Rubinstein & Parmelee, 1992, p. 2). According to Spencer & Wooley (2000), a child's place connection helps them develop their sense of self. Jack underlines that children's place attachments are influenced by positive cognitions associated with a particular location from an early age. Children form (first at unconscious levels) good and negative sentiments about their immediate environment at a very young age. Place attachment depends on creating mental structures that are supportive of the significance of particular locations (Jack, 2008, p.758).

All of the respondents agree that the neighbourhood where their children grow up has an impact on their child's development and future. Even if the respondents' opinions of the Hoge Vucht neighbourhood varied, it was clear from the interviews that they all approached the area with compassion. Throughout the interviews, they demonstrated their caring traits and made it evident that they evaluate their neighbourhood in terms of what is best for their child. The degree of child-friendliness may be inferred from the fact that a location has a favourable impact on how children develop a sense of place. The responders unanimously concur that children should experience a sense of belonging to the community they live in. Children's place attachment will grow in a healthy way when a physical location emotionally bonds a person to that place. The neighbourhood's appeal to parents also increases when a youngster is able to form these intimate relationships. The research findings also revealed a favorable correlation between the variables "child-friendly environment" and "liveability in neighbourhood for everyone."

6.2 Discussion

Overall, the findings are in accordance with findings reported by previous theorists (as described in the theoretical framework). The factors that were formulated in the theoretical framework indeed influence the place attachment and sense of place of children. Nevertheless, this research also has its shortcomings. This section will discuss the shortcomings of this research. Potential limitations of this research will be discussed.

Place attachment and sense of place

Regarding the limitations of a big research sample, it could be argued that the validity of this research could be improved. Especially the external validity of this research could be improved. External validity is related "with the question of whether the results of a study can be generalized beyond the specific research context" (Bryman, 2012, p.47). External validity can be measured by the degree of 'transferability' that questions if the findings are likely to be apply to other contexts. The research sample of this research included 10 respondents (parents living in the Hoge Vucht). The larger the research sample, the more a researcher can generalize the results of this research. The generalizability focuses on the extension of research findings and conclusions from a research conducted on a specific research sample to the population at large. It was sometimes difficult to find respondents. When the research sample included more respondents the external validity of this research was relatively higher.

Limitations qualitative research

Conducting this qualitative research has its advantages and was a suitable research approach to research the factors that contribute to a positive development of place attachment of children living in Hoge Vucht. Qualitative analysis is suitable for research in which the subject of research involves a significant degree of study of behavioural attitudes that cannot be expressed in using quantitative study (Hitchings & Latham, 2019). Nevertheless, conducting qualitative research also has its limitations. A researcher should be aware of the strengths as well as the limitations of the research approach. This paragraph points out the limitations of this research. In the book 'social research methods' Bryman (2012) sets out the four most common critiques on qualitative research. These four critiques can also be seen as limitations of conducting qualitative research. These four points of critique are linked to this research, to be aware of the limitations of this research approach and how this influences the outcomes of the data analysis.

In the first place, Bryman claims that qualitative researchers are criticised because this type of research can be too subjective. Bryman states that "By these criticisms they usually mean that qualitative findings rely too much on the researcher's often unsystematic views about what is significant and important, and also upon the close personal relationships that the researcher frequently strikes up with the people studied" (Bryman, 2012, p. 405). Despite that fact that I aimed to conduct this research as objective as I could, I might have influenced the answers of the respondents during the semi-structured interviews. An interview bias happens when the interviewer subconsciously responds that influences the respondents into giving answer to follow up questions. This can be done by the verbal reaction of the researcher or for instance the facial expressions of the researcher. In the process of carrying out research, I may have influenced the process intentionally or unknowingly because of my knowledge as a student Human Geography or my lack of knowledge of the neighbourhood Hoge Vucht. The interview guide and a thorough research plan helped me to minimize the potential researcher bias. The theoretical framework has been used as starting point for developing the interview guide. Because this data collection method relies on asking questions within a predetermined theoretical framework, I was able to guarantee the validity of this research. Validity in this case, refers to the degree to which this study accurately assesses the concept place attachment and child-friendliness that I was attempting to measure

Secondly Bryman claims that qualitative research is difficult to replicate (2012). Bryman emphasizes the character of qualitative research and that there are hardly any standard procedures to be followed. The researcher is the main instrument of the data collection and takes the research decisions that leads to the data. I am aware of the fact that it can be complex for another researcher to replicate this research. Nevertheless, chapter three provides an overview of the used methods and the research design. Additionally, chapter four and chapter five illustrate data and how these data is interpreted.

The third point of critique made by Bryman is that qualitative research might have problems with generalization (2012). As a researcher I am aware that every case is context-specific and especially for neighbourhoods. It is indeed questionable if the data results can be generalized and are representative for the whole neighbourhood Hoge Vucht. For this reason, making conclusions regarding the place attachment of children living in Hoge Vucht is difficult.

Nonetheless, this research can be seen as one small part in the growing literature on child-friendly neighbourhoods and the importance of place attachment and sense of place. In order to generalize the conclusions on for instance all neighbourhoods in Breda, more specific case research has to be conducted. To maximize the reliability of this research, it would be valuable to conduct more interviews in the neighbourhood Hoge Vucht to better generalize the conclusions for Hoge Vucht.

Finally, Bryman argues that qualitative research can have a lack of transparency (2012). According to Bryman it can be “difficult to establish from qualitative research what the researcher actually did and how he or she arrived at the study’s conclusions” (Bryman, 2012, p. 406). To understand the author’s arguments and choices for the research design, the pros and cons of the used research method have been discussed to provide a clear overview of the values of this research. Chapter three reveals the main methodological background of the research and illustrates the research design. As stated in the previous section, I aimed to be so transparent as possible. Nevertheless, it remains difficult and not doable to present all details of my research process.

Recommendations for further research

Future studies are necessary to validate the kinds of conclusions that can be drawn from this study. A number of recommendations for future research are given in this section. This master thesis is conducted on behalf of the company ‘SpaceValue’. This recommendations are valuable for the company SpaceValue as well as the scientific world to further research this topic. First of all, future research could investigate the significance of place attachments for children’s well-being and how this is different for different kinds of age groups. This research was conducted to investigate the development of place attachment for the children between 0-12 years old. There might be differences in children’s perspectives and lived experiences in the public spaces in their neighbourhood because of their age. In addition, comparing the perspectives of boys and girls in Hoge Vucht might also prove an important area for future research. Are playgrounds structured as gendered spaces and how does gender influence the use of public spaces? Moreover, it would also be a relevant addition to the current research scope to repeat the study and use methods that are designed to let children participate in the research. For this research the parents of children were asked for the interviews because children have less knowledge about the contextual information of the neighbourhood and might not be able to formulate everything. Nonetheless, it might be interesting to invite children in Hoge Vucht to co-create their desired public space and engaging them in the planning and design of their local environment. Finally, future research could also continue to explore the differences between different neighbourhoods in Breda with regard to child-friendliness. If the research will be repeated, it will certainly will be a positive addition to this research to also include different neighbourhoods in Breda. The needs and desires can vary in different neighbourhoods because of different demographic characteristics of a neighbourhood or due to other factors that influence the experienced liveability of a neighbourhood.

6.3 Reflection

This section provides a reflection of the process of this research. Overall, I am satisfied about how I conducted this research. Still there were some difficulties that I experienced during this research. First of all, the most difficult and time-consuming phase was preparing the research methodology. Improving the research questions and finding suitable respondents is important to conduct research with a high validity. During the research I gained more knowledge about place attachment and child-friendly neighbourhoods. During this process I changed and finalized the research questions. Sometimes I struggled to make the research questions clear and comprehensible. Additionally, the respondents were hard to find in the beginning. The Hoge Vucht is a neighbourhood that has a negative stigma, according to the respondents. For this reason, it was important to highlight the added value of conducting interviews in Hoge Vucht to raise awareness of the problems in this neighbourhood. When respondents realized this, they were willing to help and contribute to this research. Another difficulty was analysing the data. The transcripts of the interviews were very useful but also hard to make a summary of this data. The respondents shared a lot of valuable insights, and it was sometimes difficult to combine all these insights and create relationships.

Concerning the whole process of this thesis, it should be highlighted that in overall this research was intriguing and existing. I am interested in human geography that focuses on children and improving public spaces, as I find this topic and important challenge for urban designers. The interviews were of great value and I received answers on the research questions by conducting interviews. While reflection on my thesis process, I realized that I improved my research skills. I also realized that persistence pays, since I learned that I can achieve more than I think. I enjoyed the challenge and learned how to do academic research.

7. References

- Alamdari, Z., & Habib, F. (2012). Urban public space designing criteria for vulnerable groups (Women and children). *Canadian Journal on Environmental, Construction and Civil Engineering*, 3. https://www.researchgate.net/publication/236590937_Urban_public_space_designing_criteria_for_vulnerable_groups_Women_and_children
- Algren, M. H., Bak, C. K., Berg-Beckhoff, G., & Andersen, P. T. (2015). *Health-Risk Behaviour in Deprived Neighbourhoods Compared with Non-Deprived Neighbourhoods: A Systematic Literature Review of Quantitative Observational Studies*. *PLOS ONE*, 10(10), e0139297. <https://doi.org/10.1371/journal.pone.0139297>
- Alle Cijfers. (2022, July 9). *Wijk Breda noord (gemeente Breda) in cijfers en grafieken (update 2022!)*. AlleCijfers.nl. Retrieved June 1, 2022, from <https://allecijfers.nl/wijk/breda-noord/>
- ARUP (2017). Cities Alive. *Designing for urban childhoods*, London
- Baxter, J., & Eyles, J. (1997). Evaluating Qualitative Research in Social Geography: Establishing “Rigour” in Interview Analysis. *Transactions of the Institute of British Geographers*, 22(4), 505–525. <https://doi.org/10.1111/j.0020-2754.1997.00505.x>
- Bibri, S. E., Krogstie, J., & Kärrholm, M. (2020). Compact city planning and development: Emerging practices and strategies for achieving the goals of sustainability. *Developments in the Built Environment*, 4, 100021. <https://doi.org/10.1016/j.dibe.2020.100021>
- Biggs, S., & Carr, A. (2015). Age- and Child-Friendly Cities and the Promise of Intergenerational Space. *Journal of Social Work Practice*, 29(1), 99–112. <https://doi.org/10.1080/02650533.2014.993942>
- Björklid, P., & Nordström, M. (2012). Child-friendly cities – sustainable cities. *Child-Friendly Cities – Sustainable Cities*. https://bernardvanleer.org/app/uploads/2017/10/ECM118_10_Child-friendly-cities-sustainable-cities_Pia-Bjorklid.pdf
- Breda vandaag. (2022, June 27). *Inwoners Hoge Vucht doen inspiratie op voor nieuwe bibliotheek in Antwerpen en Baarle*. Bredavandaag | Hét nieuws uit Breda. Retrieved June 1, 2022, from <https://www.bredavandaag.nl/nieuws/algemeen/365733/inwoners-hoge-vucht-doen-inspiratie-op-voor-nieuwe-bibliotheek->
- Brown, C., de Lannoy, A., McCracken, D., Gill, T., Grant, M., Wright, H., & Williams, S. (2019). *Special issue: child-friendly cities*. *Cities & Health*, 3(1–2), 1–7. <https://doi.org/10.1080/23748834.2019.1682836>
- Bryman, A. (2012). *Social Research Methods, 4th Edition* (4th ed.). Oxford University Press.
- Catling, S. J., & Willy, T. (2009). *Teaching Primary Geography (Achieving QTS Series)* (First ed.). Learning Matters.

Centraal Bureau voor de Statistiek. (2016). *Aandachtswijken*. Retrieved May 10, 2022, from <https://www.cbs.nl/nl-nl/nieuws/2011/18/gezondheid-bewoners-aandachtswijken-iets-vooruit/aandachtswijken>

Christian, H., Ball, S. J., Zubrick, S. R., Brinkman, S., Turrell, G., Boruff, B., & Foster, S. (2017). *Relationship between the neighborhood built environment and early child development*. *Health & Place*, 48, 90–101. <https://doi.org/10.1016/j.healthplace.2017.08.010>

Clifford, N., Cope, M., Gillespie, T. W., & French, S. (2016). *Key Methods in Geography* (3rd ed.). SAGE Publications Ltd.

Corbin, J., & Strauss, A. (1990). *Grounded theory research: Procedures, canons and evaluative criteria*. *Qualitative Sociology*, 13, 3-21

Corsi, M. (2002). The child-friendly cities initiative in Italy. *Environment and Urbanization*, 14(2), 169–179. <https://doi.org/10.1177/095624780201400214>

Cresswell, C. (2014). *Place - A Short Introduction (04) by Cresswell*. WileyBlackwell, Paperback.

Cresswell, J. W. (2007). *Research design: Qualitative, quantitative, and mixed methods approaches* (2nd ed.). Thousand Oaks, CA: Sage.

Cresswell, T. 2013. *Geographic Thought: A Critical Introduction*. West Sussex, UK: Wiley-Blackwell.

Cubiss. (2022, February 1). *Ken uw doelgroep Breda*. Cubiss. Retrieved June 1, 2022, from <https://www.cubiss.nl/sites/default/files/bestanden/Ken-uw-doelgroep-Brabant/Breda.pdf>

Daalderop. (2022, December 20). *Natuurparel in het noorden van Breda* [Photograph]. Natuurparel. <https://indebuurt.nl/breda/doen/natuurparel-in-het-noorden-van-breda~117715/>

Danenberg, R., & Doumpa, V., & Karssenbergh, H. (2018). *The City At Eye Level For Kids*. STIPO. Publishing. Retrieved December 1, 2021, from

Donkers, H. (2021). *De kindvriendelijke stad*. Geografie.nl. Retrieved December 5, 2021, from <https://geografie.nl/artikel/de-kindvriendelijke-stad>

Dubois, A. and Gadde, L. (2002) Systematic Combining: An Abductive Approach to Case Research. *Journal of Business Research*, 55, 553-560. [https://doi.org/10.1016/S0148-2963\(00\)00195-8](https://doi.org/10.1016/S0148-2963(00)00195-8)

Edwards, B. (2016). Views of the Village: Parents' Perceptions of their Neighbourhoods. *Australian Institute of Family Studies*, 74, 26–33. <https://search.informit.org/doi/epdf/10.3316/ielapa.284673942095945>

Egli, V., Villanueva, K., Donnellan, N., Mackay, L., Forsyth, E., Zinn, C., Kytta, M., & Smith, M. (2019). Understanding children's neighbourhood destinations: presenting the Kids-PoND framework. *Children's Geographies*, 18(4), 420–434.
<https://doi.org/10.1080/14733285.2019.1646889>

Epstein, A.S. 2009. *Me, You, Us: Social-Emotional Learning in Preschool*. Ypsilanti, MI: HighScope.

Gandy, S.K. 2007. "Developmentally Appropriate Geography." *Social Studies and the Young Learner* 20 (2): 30–32.

Goldfeld, S., & Sewell, J. (2021). *Children need playgrounds now, more than ever. We can reduce COVID risk and keep them open*. The Conversation.
<https://theconversation.com/children-need-playgrounds-now-more-than-ever-we-can-reduce-covid-risk-and-keep-them-open-166562>

Hashemnezhad, H., Heidari, A., & Hoseini, P. (2013). "Sense of Place" and "Place Attachment." *International Journal of Architecture and Urban Development*, 3(1), 5–12.
https://ijaud.srbiau.ac.ir/article_581_a90b5ac919ddc57e6743d8ce32d19741.pdf

Hay, D. F., and Cook, K. V. (2007). "The transformation of prosocial behavior from infancy to childhood," in *Socioemotional Development in the Toddler Years: Transitions and Transformations*, eds. C. A. Brownell and C. B. Kopp (New York, NY: Guilford Press), 100–131.

Helleman, G. (2021). *Hoe openbaar is de openbare ruimte?* Gebiedsontwikkeling.nu. Retrieved May 10, 2022, from <https://www.gebiedsontwikkeling.nu/artikelen/hoe-openbaar-is-de-openbare-ruimte/>

Hennink, M. M., Kaiser, B. N., & Marconi, V. C. (2016). Code Saturation Versus Meaning Saturation. *Qualitative Health Research*, 27(4), 591–608.
<https://doi.org/10.1177/1049732316665344>

Hitchings, R., & Latham, A. (2019). Qualitative methods I: On current conventions in interview research. *Progress in Human Geography*, 44(2), 389–398.
<https://doi.org/10.1177/0309132519856412>

Horelli, L (2007). Constructing a theoretical framework for environmental child-friendliness, *Children, Youth and Environments*, 17(4), p.267-292
https://thecityateyelevel.com/app/uploads/2019/06/eBook_CAEL_Kids_Book_Design_Kidsgecomprimeerd.pdf

IPLO. (2022, February 2). *Environment and Planning Act of the Netherlands*. Informatiepunt Leefomgeving. Retrieved June 10, 2022, from <https://iplo.nl/regelgeving/omgevingswet/english-environment-and-planning-act/>

Izadi, E. (2012, January 10). *Why Low-Income Kids Miss Out On Play* | DCentric. Dcentric. Retrieved May 3, 2022, from <http://dcentric.wamu.org/2012/01/why-low-income-kids-miss-out-on-play/index.html>

Jack, G. (2008). Place Matters: The Significance of Place Attachments for Children's Well-Being. *British Journal of Social Work*, 40(3), 755–771. <https://doi.org/10.1093/bjsw/bcn142>

Karsten, Lia & Naomi Felder (2016). *De nieuwe generatie stadskinderen: ruimte maken voor opgroeiën*. Rotterdam: nai010 uitgevers.

Kramer, M. (2020). *How the neighborhood you grow up in affects your future*. PublicSource. Retrieved June 10, 2022, from <https://projects.publicsource.org/pittsburgh-neighborhood-success/>

Krishnamurthy, S. (2019). Reclaiming spaces: child inclusive urban design. *Cities & Health*, 3(1–2), 86–98. <https://doi.org/10.1080/23748834.2019.1586327>

Krishnamurthy, S., Steenhuis, C., Reijnders, D. A. H., & Stav, T. (2018). *Child-friendly urban design : observations on public space from Eindhoven (NL) and Jerusalem (IL)*. Technische Universiteit Eindhoven. <https://bernardvanleer.org/publications-reports/child-friendly-urban-design-observations-on-public-space-from-eindhoven-nl-and-jerusalem-il/>

Leefbaarometer (2002). *Wat is de leefbaarometer*. Leefbaarometer. <https://www.leefbaarometer.nl/page/leefbaarometer>

MacLean, L. M., Meyer, M., & Estable, A. (2004). Improving Accuracy of Transcripts in Qualitative Research. *Qualitative Health Research*, 14(1), 113–123. <https://doi.org/10.1177/1049732303259804>

Mayfield, C. A., Child, S., Weaver, R. G., Zarrett, N., Beets, M. W., & Moore, J. B. (2017). Effectiveness of a Playground Intervention for Antisocial, Prosocial, and Physical Activity Behaviors. *Journal of School Health*, 87(5), 338–345. <https://doi.org/10.1111/josh.12506>

McDonell, J. R. (2007). Neighborhood characteristics, parenting, and children's safety. *Social Indicators Research*, 83, 77–99.

Mehta, V., & Bosson, J. K. (2009). Third Places and the Social Life of Streets. *Environment and Behavior*, 42(6), 779–805. <https://doi.org/10.1177/0013916509344677>

Millard. (2015, July 1). *Young People and Placemaking: Engaging Youth to Create Community Places*. Project for Public Spaces. Retrieved May 2, 2022, from <https://www.pps.org/article/young-people-and-placemaking-engaging-youth-to-create-community-places>

Morenoff, J. D., Sampson, R. J., & Raudenbush, S. W. (2001). NEIGHBORHOOD INEQUALITY, COLLECTIVE EFFICACY, AND THE SPATIAL DYNAMICS OF URBAN VIOLENCE*. *Criminology*, 39(3), 517–558. <https://doi.org/10.1111/j.1745-9125.2001.tb00932.x>

Nordström, M. (1990). Barns boendeföreställningar i ett utvecklingspsykologiskt perspektiv (Children's conceptions of how they would like to live. A developmental psychology perspective), Research report SB:30. Gävle: *Statens Institut för Byggnadsforskning*.

Nordström, M. (2009). Children's Views on Child-friendly Environments in Different Geographical, Cultural and Social Neighbourhoods. *Urban Studies*, 47(3), 514–528. <https://doi.org/10.1177/0042098009349771>

Noy, C. (2008). Sampling Knowledge: The Hermeneutics of Snowball Sampling in Qualitative Research. *International Journal of Social Research Methodology*, 11(4), 327–344. <https://doi.org/10.1080/13645570701401305>

Pebley, A. R., & Vaiana, M. E. (2002). *In our backyard: How 3 L.A. neighborhoods affect kids' lives*. Santa Monica, CA: Rand.

Project for Public Spaces. (2018, February 1). What is Placemaking? | Category — Project for Public Spaces. Retrieved January 20, 2022, from <https://www.pps.org/category/placemaking>

Rekenkamer Breda (2021). *Rekenkamer Breda segregatie in Breda*. Rekenkamer Breda. Retrieved May 10, 2021, from <https://112.wpcdnnode.com/rekenkamerbreda.nl/wp-content/uploads/rekenkameronderzoek-segregatie-in-breda.pdf>

Relph, E. 1976. *Place and Placelessness*. London: Pion.

Reuben, A., Arseneault, L., Belsky, D. W., Caspi, A., Fisher, H. L., Houts, R. M., Moffitt, T. E., & Odgers, C. (2019). Residential neighborhood greenery and children's cognitive development. *Social Science & Medicine*, 230, 271–279. <https://doi.org/10.1016/j.socscimed.2019.04.029>

Riggio, E. (2002). Child-friendly cities: good governance in the best interests of the child. *Environment and Urbanization*, 14(2), 45–58.

Rijksoverheid. (2022). *Nationaal programma Leefbaarheid en Veiligheid* (Nr. 1). <https://www.rijksoverheid.nl/documenten/rapporten/2022/07/01/nationaal-programma-leefbaarheid-en-veiligheid>

Rubinstein, R. I., & Parmelee, P. A. (1992). Attachment to Place and the Representation of the Life Course by the Elderly. *Place Attachment*, 139–163. https://doi.org/10.1007/978-1-4684-8753-4_7

- Salahuddin, M., Nehme, E., Ranjit, N., & Kim, J. (2016). Does Parents' Social Cohesion Influence Their Perception of Neighborhood Safety and Their Children's Active Commuting to and From School? *Journal of Physical Activity and Health*. <https://doi.org/10.1123/jpah.2016-0148>
- Saldaña, J. (2009). *The Coding Manual for Qualitative Researchers* (1ste ed.). London: Sage
- Saunders, M. (2019). Understanding research philosophies and approaches. *University of Birmingham*.
https://www.researchgate.net/publication/309102603_Understanding_research_philosophies_and_approaches
- SCP. (2021). *Opgroeien in een kwetsbare wijk* (Nr. 1).
<https://www.scp.nl/publicaties/publicaties/2021/05/27/opgroeien-in-een-kwetsbare-wijk>
- Shaw, S., Jana, A., & Kundu, S. (2022). An analytical pathway of consumption expenditure with neighborhood deprivation and depression on cognitive health among elderly in India: A moderated mediation approach. *Journal of Affective Disorders*, 308, 249–258.
<https://doi.org/10.1016/j.jad.2022.04.060>
- Slingerland, G., Lukosch, S., & Brazier, F. (2020). Engaging Children to Co-create Outdoor Play Activities for Place-making. *Proceedings of the 16th Participatory Design Conference 2020 - Participation(s) Otherwise - Volume 1*. <https://doi.org/10.1145/3385010.3385017>
- Smit, B., & Scherman, V. (2021). Computer-Assisted Qualitative Data Analysis Software for Scoping Reviews: A Case of ATLAS.ti. *International Journal of Qualitative Methods*, 20, 160940692110191. <https://doi.org/10.1177/16094069211019140>
- Spencer, C and Wooley, H. (2000) 'Children and the city: A summary of recent environmental psychology research', *Child: Care, Health and Development*, 26(3), pp-181-98
- Steel, F (1981). *The sense of place*. CBI Publishing Company, Inc.
- Thornton, A. (2020, December 14). *How children help design sustainable, child-friendly cities*. World Economic Forum. Retrieved May 1, 2022, from <https://www.weforum.org/agenda/2020/12/child-friendly-cities-urban-planning/>
- Turner, D. P. (2020). Sampling Methods in Research Design. *Headache: The Journal of Head and Face Pain*, 60(1), 8–12. <https://doi.org/10.1111/head.13707>
- UN Human Rights (1990). *Convention on the Rights of the Child*. Retrieved April 29, 2022, from <https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-rights-child>
- UNICEF. (2019, December 15). *What is a child-friendly city?* Child Friendly Cities Initiative. Retrieved April 29, 2022, from <https://childfriendlycities.org/what-is-a-child-friendly-city/>

Unicef. (2022,). *Road safety for children is everyone's responsibility*. Unicef. Retrieved August 12, 2022, from <https://www.unicef.org/uzbekistan/en/road-safety-for-children>
Urbanization, 14(2), 169–179. <https://doi.org/10.1177/095624780201400214>

Veitch, J., Bagley, S., Ball, K., & Salmon, J. (2006). Where do children usually play? A qualitative study of parents' perceptions of influences on children's active free-play. *Health & Place*, 12(4), 383–393. <https://doi.org/10.1016/j.healthplace.2005.02.009>

Woiceshyn, J., & Daellenbach, U. (2018). Evaluating inductive vs deductive research in management studies. *Qualitative Research in Organizations and Management: An International Journal*, 13(2), 183–195. <https://doi.org/10.1108/qrom-06-2017-1538>

YanowPeregrine, D., & Schwartz-Shea, P. (2011). *Interpretive Approaches to Research Design : Concepts and Processe*(1st ed., Vol. 1). Hoboken : Taylor & amp ; Francis, 2. York, NY: Guilford Press), 100–131.

8. Appendix

8.1 Interview guide semi-structured interviews

Introductie

→ *duur: 10 minuten*

Introductie richting interview respondenten aangaande het onderzoeksonderwerp, inhoud en opzet van het interview en privacy/vertrouwelijkheid.

Fijn dat je mee wil werken aan mijn onderzoek.

Mijn naam is Isa Bosmans, ik ben masterstudent Economic Geography aan de Radboud Universiteit Nijmegen en momenteel bezig met mijn afstudeerstage bij Spacevalue.

Mijn onderzoek richt zich op kindvriendelijkheid op wijkniveau. Ik heb een grote interesse in gebiedsontwikkeling in relatie tot kinderen. De komende weken ga ik onderzoek doen in de wijk Hoge Vucht door in gesprek te gaan met de bewoners. Fijn dat ik u ook kan spreken! Dit interview zal maximaal 60 minuten duren. Ik zal het interview opnemen met mijn telefoon of laptop zodat ik de antwoorden later kan terug luisteren. Graag vraag ik uw toestemming hiervoor.

Verder is het belangrijk om te benadrukken dat jouw medewerking geheel vrijwillig is. Geef vooral ook aan als je even wilt pauzeren. Ook is het niet antwoord geven op een vraag, geen enkel probleem als je dat niet zou willen. Ik zal deze opname vertrouwelijk behandelen, dit betekent dat de opname alleen door mij gebruikt zal worden en niet openbaar gemaakt wordt. Het interview zal enkel voor mijn master scriptie gebruikt worden en dient geen andere doelen. Zodra het interview getranscribeerd/uitgetypt is zal de opname verwijderd worden. Verder wordt dit interview anoniem verwerkt worden in mijn scriptie. Als je interesse hebt in de resultaten dan stuur ik je na afloop van dit onderzoek graag een Nederlandse samenvatting toe.

In het eerste deel van het interview zal ik vragen stellen over de algemene woonbeleving in de wijk Hoge Vucht. Vervolgens ga ik per thema (die zijn voortgekomen uit mijn vooronderzoek) diverse vragen stellen. De thema's zijn de indicatoren van een kindvriendelijke wijk: 1. Sense of belonging 2. Greenspace and access to nature 3. Safety and security (space for movement) 4. Social interaction.

Doel / onderdeel	Tekst
- Bedanken voor participeren aan onderzoek	
- Introductie geven achtergrond studie en inleiding + doel onderzoek	
- Inzicht geven over hoe interview zal verlopen (duur etc, vragen stellen mag)	
- Akkoord vragen voor opname (privacy en vertrouwelijkheid)	
- Interesse peilen voor inzicht in resultaten na afloop onderzoek	

Interview vragen fase

→ duur: 40 minuten

	Waar in Breda Hoge Vught woont u?
Inzicht in huidige woonsituatie en geschiedenis	Wat is uw gezinssituatie? Hoeveel kinderen heeft u en wat is de leeftijd?
	Hoelang woont u al in uw huidige woonplaats? Wat is uw huisvesting geschiedenis?
	Bent u van plan de komende 10 jaar in Breda te blijven wonen? En om welke redenen?
	Wat is uw algemene oordeel over de stad Breda. Denk aan de sfeer, ontwikkeling van openbare ruimte etc.
	Zit uw kind op een sport, andere hobby's?
	Van welke voorzieningen in Hoge Vught maak u veel gebruik? Denk aan bibliotheek, zwembad, parken etc?
	Voor welke voorzieningen gaat u naar een ander deel van Breda? En zo ja voor welke?
	Hoe is het openbaar vervoer in Hoge Vucht, beschikt u over een auto en hoe verplaats u zich vooral door Breda?

Thema: explorerend

Doel / onderdeel	
Associatie kindvriendelijke wijk onderzoeken, zonder informatie vooraf	Waaraan denkt u bij het begrip 'kindvriendelijke wijken', welke termen komen in uw gedachte? Hoe zit die wijk eruit?
Foto studie kindvriendelijke wijk	U heeft een foto gemaakt van kindvriendelijke elementen uit uw wijk, kunt u dit toelichten

Thema: Sense of belonging: indicator/factor 1

	In welke mate wordt sociale ontmoeting en ontmoeting gestimuleerd voor u kind met leeftijdsgenoten?
	Kunt u plekken in Breda of andere plekken omstreken benoemen waar 'saamhorigheidsgevoel wordt bevordert'

Thema: Greenspace and access to nature: indicator/factor 2

	Hoe groen is de wijk naar uw mening?
	Waar gaat u naartoe als u met uw kind naar buiten wil? Denk aan openbare ruimte in Breda
	Kunt u plekken in Breda of andere plekken omstreken benoemen waar 'vergroening in de wijk' zichtbaar is?

Thema: Safety and security & Space for movement: indicator/factor 3

	Is de Hoge Vught een veilige plek voor u kind om buiten te spelen?
	Kunt u plekken in Breda of andere plekken omstreken waar een hoog veiligheidsgevoel is voor u kind?
	Hoeveel tijd spendeert uw kind buiten om te bewegen? Wordt dit aangemoedigd door middel van de openbare ruimte in Breda Hoge Vught?
	Kunt u plekken in Breda of andere plekken omstreken benoemen waar 'beweging door middel van buitenspelen bevordert'

Thema: Social interaction: indicator/factor 4

	Wat voor sfeer is er in de wijk Hoge Vught? In hoeverre wordt ontmoeting gestimuleerd?
	Kunt u plekken in Breda of andere plekken omstreken benoemen waar 'ontmoeting tussen kinderen wordt bevordert'
	Waar gaat uw kind naar school en in hoeverre zijn er kinderen van diverse culturen gemend?

	Zou u uw droomwijk voor uw kind willen omschrijven?
	Kunt u plekken in Breda of andere plekken omstreken benoemen waar 'ontmoeting tussen kinderen wordt bevordert'

Afronding

→ duur: 10 minuten

	<p>AFRONDEN:</p> <p>Zullen we een paar dingen samenvatten? Kun je me een voorbeeld geven van? Klopt het dat? Wil je me nog iets meer vertellen over ... ? Wat je met me deelt is belangrijk, kun je er meer over vertellen?</p> <p><i>Probeer te reflecteren op dingen die zijn gezegd, hoe staan bepaalde dingen in verbinding met elkaar. Bedanken voor de tijd die is vrij gemaakt om dit interview af te nemen/geven van bedankje.</i></p>

What Makes a Great Place?



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8.2 Open codes example ATLAS.ti

Name	Count	Groups
Disadvantage of the neighbourhood: m...	4	0
Doubts to stay in Hoge Vucht: consider...	1	0
Dream childfriendly neighbourhood	1	0
Dutch children at school also need atte...	1	0
Enough green in Hoge Vucht	4	0
Escape Hoge Vucht: because of safety...	1	0
Fear of parents of child being bullied	6	0
Fear of parents: child choosing the wro...	1	0
Fear of youth in the neighbourhood	6	0
Financial struggle: housing shortage	6	0
Financial struggle: not enough to pay f...	2	0
Financial struggle: pay for activities chi...	4	0
Forced to leave the neighbourhood	1	0
Good integration between different cult...	1	0
Grote Broer Grote Zus project: not wor...	2	0
High % of children living in Hoge Vucht...	3	0
High number of vaccant buildings in Ho...	1	0
High social cohesion: mothers in Hoge...	1	0
Hoge Vucht during lockdown	1	0
Hoge Vucht located near by nature	2	0
Hoge Vucht near by city centre: positive	2	0
Housing type Hoge Vucht: high-rise bui...	0	0
Importance of having children living in t...	1	0
Importance of raising child of good way	2	0
In the past: more activities in the neigh...	1	0
In the past: wrong friends in the neighb...	1	0
Inhabitans platform Hoge Vucht	1	0
Inhabitant committed to invest in the n...	5	0
Integration issue: missing connection w...	4	0
Involved inhabitant: good for the neigh...	1	0
Involvement in the neighbourhood: con...	2	0

8.3 Overview of axial codes ATLAS.ti

Code groups	Codes
1. Green environment & playground	<i>Child wants to explore</i>
	<i>Children get bored</i>
	<i>Current situation playing facilities Hoge Vucht</i>
	<i>Doubt to stay in Hoge Vucht: liveability</i>
	<i>Enough green in Hoge Vucht</i>
	<i>Hoge Vucht located near by nature</i>
	<i>Likes to go to nature: woods</i>
	<i>Likes to have more variation of green in Hoge Vucht</i>
	<i>Making more space for playing instead of parking</i>
	<i>Missing big park in Hoge Vucht</i>
	<i>Missing place to recreate in Hoge Vucht</i>

	<i>Need for children to discover</i>
	<i>Need for enough facilities children</i>
	<i>Negative about playing facilities</i>
	<i>Neighbourhood depended because of limited mobility</i>
	<i>Not enough activities to explore sports and movement for children</i>
	<i>Not enough green in Hoge Vucht</i>
	<i>Nuisance of dogs: negative effect on playground</i>
	<i>Opportunity for Hoge Vucht to invest in park</i>
	<i>Other good example locations</i>
	<i>Values own garden lack of playgrounds</i>
	<i>Playing facilities outdated</i>
	<i>Positive about Haagse Beemden playground</i>
	<i>Preference children playing outside</i>
	<i>Reason why more interest in green, mother perspective</i>
	<i>Value of parks in Hoge Vucht</i>
	<i>Value of playgrounds for children</i>
2. Sense of belonging	<i>Child only white child</i>
	<i>Child playing with children from school</i>
	<i>Current school situation</i>
	<i>Fear of parents: child choosing the wrong path</i>
	<i>High % of children living in Hoge vucht child-friendly</i>
	<i>Language barrier between inhabitants</i>
	<i>Only coloured child</i>
	<i>Positive about school multicultural</i>
	<i>Preference for school outside of Hoge Vucht</i>
	<i>Preference for mixed culture school</i>
	<i>Preference for more differentiation housing types</i>
	<i>Preference for school outside Hoge Vucht</i>
	<i>Reason of school near by: children walking</i>
	<i>Sense of community</i>
	<i>Value of neighbourhood centre</i>
	<i>Cultural difference in Hoge Vucht between inhabitants</i>
3. Safety	<i>Bad image of Hoge Vucht</i>
	<i>Bad influence of other children</i>
	<i>Brutal youth</i>
	<i>Concern about child</i>
	<i>Criminal activities in Hoge Vucht drugsdeal</i>
	<i>Development last years: overdue maintenance</i>
	<i>Dilemma: letting child more free vs less safe</i>
	<i>Disadvantage of neighbourhood – mentality</i>
	<i>Escape Hoge Vucht because of safety level</i>
	<i>Fear of parents: child being bullied</i>
	<i>Fear of youth in the neighbourhood</i>
	<i>Importance of raising children in a good way</i>
	<i>In the past: wrong friends in neighbourhood</i>
	<i>Lack of parental authority in the streets</i>

	<i>Loitering problem for a long time</i>
	<i>Loitering vandalism</i>
	<i>Loitering pollution</i>
	<i>Loitering public nuisance</i>
	<i>Many children going to school in Teteringen</i>
	<i>Mentality of inhabitants Hoge Vucht</i>
	<i>Need for mentality shift children</i>
	<i>Need for more police during dangerous situations</i>
	<i>Need for pedestrian friendly areas</i>
	<i>Need for safe neighbourhood</i>
	<i>Need for safe neighbourhood</i>
	<i>Need for safer playgrounds in Hoge Vucht</i>
	<i>Need to watch out of child</i>
	<i>New years eve high risk area</i>
	<i>Not enough facilities for youth</i>
	<i>Playing facilities dangerous</i>
	<i>Preference moving to village: safe</i>
	<i>Responsibility for child</i>
	<i>Restricted area of playing</i>
	<i>Safety level influences liveability children</i>
	<i>Sphere in Hoge Vucht</i>
	<i>Streets not safe cars</i>
	<i>Traffic cars driving too fast</i>
	<i>Waites langer before child goes playing on their own</i>
	<i>Willing to drive her child around because safe</i>
	<i>Youth need to have place to come together</i>
	<i>Youth taking over playgrounds of children</i>
4.Social interaction	<i>Advantage library: meeting and improvement skills</i>
	<i>Child swim lessons with other children</i>
	<i>Different social cohesion now and the past</i>
	<i>Different levels of education</i>
	<i>Good speaking children also need extra hulp</i>
	<i>Good integration between different cultural groups</i>
	<i>High social cohesion among mothers in Hoge Vucht</i>
	<i>Hoge Vucht near by city</i>
	<i>Importance of having children living in the area</i>
	<i>In the past more activities</i>
	<i>Integration struggle</i>
	<i>Involved inhabitant: good for neighbourhood</i>
	<i>Limited social cohesion in neighbourhood</i>
	<i>Missed library</i>
	<i>Missing gym building for meeting</i>
	<i>Mobility choice</i>
	<i>Need for affordable/free activities in Hoge Vucht</i>
	<i>Population composition</i>
	<i>Positive about multiculturality</i>

	<i>Discover your talent program positive</i>
	<i>Preference for residential area: stimulating interaction</i>
	<i>Racism</i>
	<i>Reason preference school outside Hoge Vucht</i>
	<i>Value of youth centre</i>
5. Involvement municipality	<i>Attitude towards municipality</i>
	<i>Cannot quality for house on market, complexity</i>
	<i>Communication municipality and inhabitant not good</i>
	<i>Dependent of family because of financial problems</i>
	<i>Financial struggle: housing shortage</i>
	<i>Financial struggle: not enough to pay for education</i>
	<i>Forced to leave neighbourhood</i>
	<i>High number of vacant buildings in Hoge Vucht</i>
	<i>Inhabitant committed to invest in neighbourhood</i>
	<i>Involvement in neighbourhood: confident</i>
	<i>Lack of supportive organisations</i>
	<i>Liveability becomes worse</i>
	<i>Municipality wrong priority: image and parking</i>
	<i>Messy appearance of neighbourhood</i>
	<i>Need financial support municipality</i>
	<i>Need for more help vulnerable inhabitants</i>
	<i>Negative association with Hoge Vucht stigma</i>
	<i>No reward for investments neighbourhood</i>
	<i>More involvement of housing corporation</i>
	<i>Number 1 priority improve Hoge Vucht</i>
	<i>System focused on income categories: people left behind</i>
	<i>Vision investments Breda</i>
6. Living situation	<i>Current living situation</i>
	<i>Current living situation: preference moving out Hoge Vucht</i>
	<i>Dream child-friendly neighbourhood</i>
	<i>Living history</i>
	<i>No preference for moving out</i>
	<i>Nuisance: inhabitant of flat</i>
	<i>Preference Hoge Vucht above Haagse Beemden</i>
	<i>Preference for moving out of the flat</i>
	<i>Preference locations outside Hoge Vucht</i>
	<i>Reason for moving out Breda</i>
	<i>Reason for returning back in Breda</i>
	<i>Reason for staying in Hoge Vucht</i>

8.4 Link manager ATLAS.ti category safety

Code-Code Link Manager
Thesis Isa Bosmans

+ - No Grouping ↕ 📄 🔍 Search
New Delete Grouping Export Filter See

Search Relation	Source	Relation	Target	Comment
contradicts	3. Bad influence of other children:...	● is associated with	3. In the past: wrong friends in the...	
is a	3. Concern about child	● is associated with	3. Responsibility for child	
is associated with	3. Concern about child	● is cause of	3. Waites longer before child goes...	
is cause of	3. Criminal activities in Hoge Vuucht...	● is part of	3. Loitering: public nuisance	21/06/2022, 12:45, merged with 3. Criminal acti
is part of	3. Lack of parental authority in th...	● is cause of	3. Mentality of inhabitants Hoge Vu...	
is property of	3. Loitering problem: vandalism	● is part of	3. Loitering: public nuisance	
noname	3. Loitering: pollution	● is part of	3. Loitering: public nuisance	
7 Code-Code Relations	3. Loitering: public nuisance	● is cause of	3. Youth taking over playgrounds o...	
	3. Loitering: public nuisance	● is cause of	3. Fear of youth in the neighbourhood	
	3. Mentality of inhabitants Hoge Vu...	● is associated with	3. Bad influence of other children:...	
	3. Need for more police during dan...	● is associated with	3. Loitering: public nuisance	
	3. Responsibility for child	● is associated with	3. Willing to drive her child around:...	
	3. Streets not safe	● is part of	3. Traffic safety: cars drive too fast	
	3. Traffic safety	● is part of	3. Safety level influences liveability...	
	3. Traffic safety: cars drive too fast	● is cause of	3. Willing to drive her child around:...	
	3. Traffic safety: cars drive too fast	● is cause of	3. Waites longer before child goes...	
	3. Youth needs a place to come to...	● is cause of	3. Loitering: public nuisance	

Result: 17 of 17 Code-Code Link(s)