Youth & urban public space: COVID-19's impact

A research on the impact of the measures as a result of COVID-19 on youth their use of urban public spaces in Apeldoorn, the Netherlands



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Bachelor thesis Geography, Planning and Environment (GPE)

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Word count main text: 18621

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Preface

Hereby I present you my bachelor thesis as the completion of the bachelor course Geography, Planning and Environment. The subject of this thesis was partly established by the minor that I did during my study, namely an educational minor geography teacher. Here I was allowed to learn about and teach to young people of secondary schools for several months. Because I have put a lot of time and interest into these educational months, I wanted to involve this group in my thesis. The recent developments around COVID-19 inspired me to study the impact this pandemic has on society more in-depth, mainly because relatively little research has been done due to the recentness of the development of the pandemic. I connected the concept of space & place to youth, as space & place have been a subject that received a lot of attention during the three-year study of Geography, Planning and Environment. This resulted in my thesis on the impact of COVID-19 measurements on the use of public space by youth.

I would like to thank my first supervisor Kolar Aparna for helping me to get started with the thesis, and for guiding me through the first months of this process and looking for solutions when I got stuck with the research. I would like to thank my second supervisor Jackie van der Walle for guiding me through the last months of working on my thesis.

Adinda Dijkgraaf

Summary

This research analyses the use of urban public open spaces by youth in the midst of the COVID-19 pandemic, with the city of Apeldoorn in the Netherlands serving as a case study. To study how COVID-19 has affected the use of public spaces by young people, the following main question was formulated: How do measures in response to COVID-19 impact youth their use of urban public spaces in Apeldoorn, the Netherlands? The pandemic identified in 2020 as a result of the COVID-19 virus imposed restrictions on movements, gatherings and the use of urban public spaces. Urban public spaces include streets, parks, recreation areas, and squares (Tonnelat, 2010; Jalaladdini & Oktay, 2012). These spaces have critical importance for youth, because a public place for social encounters is important for youth their development process (Filius & Van Melik, 2011). During the COVID-19 pandemic, which imposed restrictions on the use of these public spaces, it became crucial to measure how public spaces during these restrictions are being used (Lindsey et al., 2020). This contributes to informing about public activity to government officials to make decisions, and inform urban planning and design (Lindsey at al., 2020; Honey-Rosés et al., 2020). Studying and measuring changes in the use of public spaces while COVID-19, is crucial in order to inform urban planning and design (Honey-Rosés et al., 2020). To study the impact of COVID-19 on the use of public space by young people, a number of propositions were first argued that influence why public space is used. These are first of all the physical qualities of the space. Physical elements include pathways, edges, districts, nodes, landmarks, public art, food outlets, connected pathways and seating (Dougherty, 2006; Francis et al., 2012). Furthermore they include facilities such as restaurants, shops or cinemas (Yousef, 2006). These physical qualities create a strong image and memorability of the certain space, that influences one's use of space (Dougherty, 2006). Secondly, emotional connectedness influences how one uses a public space. Emotional connectedness is created due to places that people visited in their childhood, or gained certain memories or experiences in. This is argued to have an impact on the extent to which people feel comfortable and safe with a space, and create a connection, which make people want to come back (Dougherty, 2006; Yousef, 2006). Why people visit a public space also depends on their personal or individual characteristics. This includes, among other things, boys and girls who experience the space differently. Some people might prefer to spend their free time at home, while others prefer to spend it in public spaces (Rossetti et al., 2019). Other matters such as education, socio-cultural meanings, and socioeconomic inequalities can be a reason why someone makes more or less use of a public space (Gerritsen & Goosens, 2004; Diensten MMO & GNL, 2008; Evans, 2008). The last aspect argued on why one makes use of a public space is the public sphere, which is especially important for youth. The public sphere is a term introduced by

philosopher Habermas (Mah, 2000). Habermas initially described the public sphere as a mental and physical space, where educated middle-class citizens could freely share their knowledge and discuss their opinions about political and philosophical matters (Inglis & Thorpe, 2019). This study argues that nowadays, the public sphere is present in public spaces. Additionally, this study argues that the public sphere is especially important for youth. The is because the public sphere is a place where people meet and are able to democratically exchange ideas and opinions (Papacharissi, 2000). For youth, it is important to meet peers and have social encounters for their development (Filius & Van Melik, 2011). The COVID-19 restrictions are argued to have an influence on this development of youth, due to taking less use of the public space. To answer the main question, the research conducted a case study on the city of Apeldoorn. Apeldoorn is a city in the Netherlands with 164.781 inhabitants in the municipality in 2021 (Centraal Bureau voor de Statistiek, 2021a). In the city of Apeldoorn, observations have been made during less strict restrictions. Stricter restrictions were in place before the observations took place in June 2021. Therefore, this study conducted a desk research to supplement data about the use of public spaces by young people in other phases of restrictions, and without restrictions. The public spaces that were observed in Apeldoorn included the Market Square, the Station Square, the Oranjepark, the Mheenpark and the shopping centre. The collection of material took place through structured observation schedules and desk research. Material from the desk research concerned all relevant data for this research from scientific literature to newspaper articles. Results showed that in general, the public spaces in Apeldoorn are filthy and there is a demand for improvement by residents (Talsma et al., 2007 & Diensten MMO & GNL, 2008). A phenomenon that takes place in Apeldoorn is that the younger age group is declining (Centraal Bureau voor de Statistiek, 2021a). This means that fewer and fewer young people are born, which means that increasingly more older people live in Apeldoorn. This phenomenon also takes place in the Netherlands (Centraal Bureau voor de Statstiek, 2021a). In addition to the COVID-19 restrictions, this also seems to have an effect on why young people make less use of public spaces. When young people use a public space, occasionally there is no one else their age present to play or hang out with. This research had argued that the restrictions on the use of public space impact the social development of young people. The research has shown that public spaces are an important factor in shaping the identity of children and youth. It is important for teenagers to be with friends without parental supervision or other dominant groups being present in public spaces (Travlou, 2007; Van der Meulen, 2018). However, youth values public spaces for their social characteristics (Travlou, 2007). And these social characteristics taking place in the public spaces are important for youth their development process (Filius & Van Melik, 2011). The restrictions on public space, but also other restrictions such as the closure of schools, restrictions on gatherings and the closure of

shopping malls have affected youth their use of public spaces (McCarthy et al., 2021). The research has shown that youth mostly gathers in public spaces after school. They mostly make use of the shopping centre for shopping and the parks for relaxation and activities. With COVID-19 restrictions like the closure of schools and shopping malls, it has been argued that young people will make less use of public space. This will then have an effect on their social development, because it is precisely meeting peers in the public space that contributes to the social development of young people. In Apeldoorn at the moment, results show that residents of Apeldoorn miss a social meeting place (Wijkraad Centrum Apeldoorn, 2015; Talsma et al., 2007). Therefore, the advice for Apeldoorn is to improve public spaces in the city. In order to meet the already descending amount of youth in the city, it is important to take into account the needs of young people for social meeting spaces. A recommendation for further research is to continue this research to the longer term. By conducting research into the longer term, with even more relaxation of restrictions, the long-term impact of COVID-19 restrictions on young people their social development can be studied.

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1. Introduction

1.1 Research problem

The first confirmed cases of COVID-19 were identified in late 2019 in Wuhan, Hubei Province, China (Sharifi & Khavarian-Garmsir, 2020). As a consequence, much of people's lives around the world in 2020 were changed (Zajenkowski et al., 2020). Government officials all around the world advised or required citizens to comply with measures to reduce the spread of the virus. These measures included lockdowns, shelter-in-place, social distancing, (international) travel restrictions, wearing masks, isolating oneself at home, and a shifting use of roads, hospitals, grocery stores, and other places of public infrastructure (Lindsey et al., 2020; Chinazzi et al., 2020; Zajenkowski et al., 2020). One of the consequences of these restrictions ensured that public spaces had to be used on a smaller scale. During the beginning of the pandemic, around March 2020, thousands of pictures of empty streets, squares, malls, and other spaces could be found on the internet, on social media, and in the news. Spaces that were once full of people, were now deserted. One area being seriously affected by these measures and restrictions are public spaces in the cities. Cities are home to most of the world population and they are centres of economic growth and innovation (Sharifi & Khavarian-Garmsir, 2020). As they have a high concentration of people and activities, they have a high human movement in their public spaces. With imposed restrictions on the use of public spaces, these spaces with a common use right to every individual became vulnerable to the pandemic and imposed limits on its use. Public spaces, which can go from "spaces in which we take shelter to those which we cut across and travel through", are part of people their everyday social reality (Madanipour, 1999, p. 879). Urban public spaces include streets, parks, recreation areas, and squares (Tonnelat, 2010; Jalaladdini & Oktay, 2012). These public spaces have critical importance for the city because they encourage social interaction among individuals and they form a sense of community (Schmidt & Németh, 2010; Paköz et al., 2021). According to Schmidt & Németh (2010) "groups and individuals ... assert their right to the city by making themselves directly visible in public space" (p. 453). Besides public spaces being part of the development of a city, they also play an important role in public life as they increase the quality of life (Ramlee et al., 2015). According to Carr et al. (1992), public spaces are dynamic and provide movement, communication, and common ground for play and relaxation. The measurements ensured that these important spaces for the city have been limited in their use. This raises general questions as: 'what impact do the restrictions have on the use of public spaces?', 'will the use of urban public spaces change permanently, even with restrictions lifted?' and 'how do people use public spaces during the pandemic?'. Since the pandemic could provide a

turning point in the use of public spaces, it is important to map out the impact that the restrictions have on public spaces and provide answers to questions regarding COVID-19 and urban public spaces.

Different groups give different meaning to the spaces they use (Madanipour, 1999). Children and young people are important social actors whose experiences in public spaces are different from those of other groups such as adults (Evans, 2008). Public spaces in the city can have a special meaning to young people. Spaces such as squares, parks, alleys, and riverfronts can be places where young people associate their emotions and feelings with (Honey-Rosés et al., 2020). To look at the impact of COVID-19 measures on public spaces, these different experiences and use of public spaces by different groups should be kept in mind. Young people often use public spaces to hang out as those places offer them more autonomy, anonymity, and freedom from parental supervision (Travlou, 2007). Space is an important factor in shaping the identity of children and youth. "They show up, make and remake space and therefore themselves" (Aitken, 2018, p. 19). Additionally, according to Farrugia (2015) "the spaces and places of children and young people's identities ... reflect, and are constitutive of, the social relationships which make up who they are" (p. 42). Findings from Travlou (2007) showed that teenagers value public space for opportunities for social interaction. It is important for teenagers to be with friends and to be away from parental supervision, and they value social characteristics in a public space (Travlou, 2007). With restrictions due to COVID-19, young people can no longer meet these needs in public spaces.

Before the pandemic, there had already been a concern about the limited use of public open spaces by children. There has been discussion about a generation of children who are locked within the home by their parents being fearful of a multitude of dangers in public space (Evans, 2008). Another phenomenon recently among youth is that they spent more time on the internet, which may be at the expense of their attachment with public spaces. The COVID-19 measures force these already existing phenomena to be strengthened. For youth, these restrictions are complemented by the closure of schools, and restrictions on gatherings, which have caused major changes in the social and developmental context of their lives (McCarthy et al., 2021). Due to the restrictions, many schools closed and young people all over the world have experienced a transition to online learning (Literat, 2021). Before the pandemic, there had already been an increase in young people having access to online environments and activities (Wyn & Cahill, 2015). Activities include educational tasks, general online browsing, playing games but also social networking, connection with friends, and meeting strangers (Wyn & Cahill, 2015). Because young people increasingly have access to the online environment, their way of communicating with

others, building relationships, and developing social skills have changed (Wyn & Cahill, 2015). With public spaces also providing a space for communication and social interaction, this also raises questions on how youth may use alternative spaces to the public space to develop social relationships. Therefore, the COVID-19 restrictions are very likely to have a major impact on youth and their attachment with urban public spaces.

To examine the impact of COVID-19 measures on the use of urban public spaces by young people, this study focuses on the city of Apeldoorn in the Netherlands. The city had 138.143 inhabitants in 2020, while the municipality of Apeldoorn had 164.781 inhabitants in 2021 (AlleCijfers.nl, 2021a; Centraal Bureau voor de Statistiek (CBS), 2021a). The municipality of Apeldoorn is listed as the 11th municipality with the highest number of inhabitants in the Netherlands (AlleCijfers.nl, 2021b). This makes Apeldoorn a more average city in the Netherlands compared to bigger known cities as Amsterdam and Rotterdam, whose municipalities had 873.338 and 651.631 inhabitants in 2021 (CBS, 2021a). 11.0% of the women in Apeldoorn are aged 10-20 years, and 12.0% of the men are aged 10-20 years in 2021 (CBS, 2021a). This corresponds to the average figures in the Netherlands, where 11.0% of women are in the 10-20 age group, and 11.7% among men (CBS, 2021a). Apeldoorn has several public spaces such as squares and parks. The city has 7 city parks, one city square, other smaller squares, and one of the longest shopping streets in the Netherlands (uitinapeldoorn.nl, n.d; apeldoorn-binnenstad.nl, n.d-a). The COVID-19 pandemic and the measurements can amplify the effect that parks and squares in the city could remain empty. One of the ambitions of the municipality is to keep the city and its public spaces alive (Talsma, 2007). It is therefore important for the municipality of Apeldoorn, and additionally to all cities and their urban public spaces in the world, to visualize the impact COVID-19 has on the vital public spaces of the city.

1.2 Research aim

The focus of this research is to gain knowledge about the impact that COVID-19 restrictions have on the use of urban public spaces by youth in Apeldoorn. Observing youth in public spaces generates knowledge about the impact of COVID-19 on the use of public spaces by young people in the city. Doing desk research ensures that the findings from before and after the lockdown can be compared. The research focuses on what public spaces mean to youth and how this contributes to the formation of their social development through the public sphere, with new insights about the impact of COVID-19 on this. The aim of this research is then to contribute to the theory development in Apeldoorn about the impact of COVID-19 on the use of public spaces

by young people, with the intention of supplementing general knowledge about youth, public spaces and COVID-19.

1.3 Research question

The main question this study aims to answer is: **How do measures in response to COVID-19 impact youth their use of urban public spaces in Apeldoorn, the Netherlands?** To address this question, a theoretical framework has been formed on how people in general become attached to, and make use of, public spaces in the city. This also includes the role that the public sphere has in visiting public spaces. Studying young people their use of public spaces in Apeldoorn has been done by doing observation sessions and conducting desk research. The observations focused on the use and behaviour of young people in public spaces in Apeldoorn while measures as a result of COVID-19 were in place. In addition, the desk research focused on young people their use and behaviour in public spaces in Apeldoorn and other cities, both with and without measures.

The sub-questions are:

- 1. How are urban public spaces used by youth in Apeldoorn while different phases of the COVID-19 measurements?
- 2. How were urban public spaces in Apeldoorn used before COVID-19 restrictions?

The first sub-question will reveal results on how young people in Apeldoorn use the public spaces in the different phases of the COVID-19 measurements. The second sub-question will find results on how young people in a situation without measurements, before COVID-19 measurements, made use of the public space. This way, differences can be found between how the space was used during the various COVID-19 measures, and how the space was used in a situation without measures. This way, the impacts of COVID-19 on the use of public space in Apeldoorn by young people can be visualized.

1.4 Relevance

1.4.1 Societal relevance

The research aims to contribute to knowledge on how the use of urban public spaces has been affected by the COVID-19 pandemic in Apeldoorn. During a public health emergency like the COVID-19 pandemic, it becomes crucial to measure how public spaces are being used (Lindsey et al., 2020). Lindsey et al. (2020) explain that this contributes to information about public activity to

government officials to make decisions, such as if the population is properly following quarantine orders. Better knowledge of the underlying patterns and dynamics of pandemics like the COVID-19 pandemic and their effects on cities are needed (Sharifi & Khavarian-Garmsir, 2020). In addition to this, necessary preparation, response, and adaptation measures are needed (Sharifi & Khavarian-Garmsir, 2020). According to Honey-Rosés et al. (2020) it is crucial to study and measure changes in public space while COVID-19, in order to inform urban planning and design. Visualising the impacts the pandemic has on urban public spaces is therefore important for those who design the spaces. If a pandemic changes the relationship people have with public spaces, they will have to be arranged differently. Youth who use the places, have a need for certain design that suit their relationship and use of those spaces. This research therefore contributes to ensuring that city of Apeldoorn gains knowledge in what changes take place in their public spaces, so they can respond and adapt to changes in behaviour and perception of public space during or after a pandemic. This also contributes to the perception of public space by young people themselves, so that officials can respond to youth and their relationship with public space during a pandemic, if needed. This study in general focuses on the city of Apeldoorn, the municipality and their urban planners can include results in future design of their public spaces to continue to attract young people in Apeldoorn while taking into account changing times and customs. With results of this research, Apeldoorn has insight into the extent to which young people use public space for their public sphere, and to what extent a pandemic has an influence on this. The municipality and city planners can include this in their future plans to arrange the space according to the needs of its residents. In this way, the residents of Apeldoorn can use public spaces that suit their needs.

1.4.2 Scientific relevance

Existing literature already provides the value of public spaces for children and youth (Wyn & Cahill, 2015; Travlou, 2007; Lieberg, 1995). However, there is a limited amount of literature that discusses the relationship between youth as a separate group and public space. Most of the literature about the relationship between humans and public space deals with the relationship between public spaces and humans in general. Literature about public spaces and youth research children and youth as one group, whereby youth is often referred to as children. Specific literature about public spaces and youth as a separate research group is therefore limited. This research focuses on youth ages 12 to 18. As a result, young children are excluded from this study. This research therefore contributes to the development of theories about youth specifically as a separate research group and their relationship with public space. Due to the recency of the

COVID-19 pandemic relatively little research on the impacts of COVID-19 have been done. A study on the impact of COVID-19 on public spaces has been done by Honey-Rosés et al. (2020). Their research focused on questions regarding COVID-19 and city design. The research also examines changes in perceptions of public spaces to a small extent, however it stated more research is needed due to the recency and constant changing development of the pandemic. A research by Paköz et al. (2020) studied the impact of COVID-19 on public space in Istanbul, Turkey, by studying the changing perceptions and usage of public and pseudo-public spaces in a post-pandemic city. They argued that there were serious changes in the use and perception of public spaces a few months into the pandemic. Since the COVID-19 pandemic and its impacts are still visible in society at the time of writing and conducting this research, ongoing research on this topic is still possible and desirable since the pandemic has different phases and impacts in different places in the world. While research on the impact of COVID-19 on youth, and separately on public space have been done, however more research is needed due to the recency of the phenomenon of COVID-19. This study therefore serves as the first step for broader research on this topic, or as a followup or supplement to yet to be published studies on this topic. This research can include outcomes that may be important for further and broader research into youth in public space during or after the pandemic. This research therefore contributes to the development of theories about the impacts of COVID-19, but also about how the relationship between youth and public space can change, what causes this and what the consequences can be. Since this research focuses on Apeldoorn, the development of theories will be about Apeldoorn. Limited literature can be found about Apeldoorn and the public spaces, and especially about young people in public spaces in Apeldoorn. This research therefore contributes to the development of theories about young people in the public space in Apeldoorn.

1.5 Reading guide

The second chapter of this research starts with a theoretical framework about how and why people feel attached to and use public space. The COVID-19 restrictions as introduced in the research problem, are being supplemented with other elements of how people experience public space. How the public spaces then play an interest in youth their social development and needs is then explored through the concept of the public sphere. The findings of this theoretical framework then form the basis for the conceptual model. The third chapter discusses the methodology, where the chosen research methodology and the reasons for these methods are described. Chapter 4 contains an overview of the results found by using the research methods and its results based on the sub-questions. The main question is answered in the conclusion in

Chapter 5, followed by recommendations for further research and practice. Finally, Chapter 6 reflects on the process and outcome of the research.

2. Theoretical framework

This theoretical framework discusses reasoning for why youth takes use of public spaces. First, the different kinds of public spaces will be discussed. Why youth is attached to certain public spaces, is then further argued to the specific qualities a certain public space has, as defined by Dougherty (2006), namely the physical qualities and emotional connection. In addition to this, the individual characteristics will be taken into account to explain why young people use public space. Jolles (2017) describes how youth their brain is developing, therefore give meaning to peer groups and participation in society. For this reason, the term public sphere is introduced to this research. This term was first introduced by philosopher Jürgen Habermas. In this chapter, the public sphere is being argued as being a factor in how youth experiences public spaces as part of their social needs and development. At the end of the chapter, these introduced concepts will form the conceptual model of this research.

2.1 Public spaces

In this paragraph, the definition of public space is discussed. Different types of public spaces are mentioned and what their characteristics and examples are. Ultimately, a theoretical framework is formed about which public spaces are central to this research.

In Gehl & Matan (2009, p. 109) the discussed authors advocate for public spaces to be "healthy, lively, sustainable, safe and democratic, which provide a people-friendly social realm, able to complement modern, consumer-private-orientated lifestyles". Urban public space is being approached by Diensten MMO & GNL (2008) as the system of streets, squares, parks, shores, and in most situations spaces where the municipality has influence. The word public in public space indicates that these places are accessible for any individual to use. Literature shows that public spaces nowadays are much more complex and create much more discussion than the traditional definitions of public spaces as parks and squares (Zhang & He, 2020). Recent events such as urban settlement and the growing number and variety of semi-public spaces are changing the definition of public spaces and create discussion (Tonnelat, 2010). Zhang & He (2020) give the example of a discussion of whether a shopping centre is a private space where the owner has the right to expel whomever he wishes or a public space that everyone can access regardless of their intentions. Habermas defines public spheres such as private coffeehouses and salons as 'public'. In these spaces, citizens form public opinion, even though these spaces are only open to the educated bourgeoisie (Zhang & He, 2020). This means that in some situations, a public space is referred to

as being public when in reality many people are excluded. Public spaces could also look more like private spaces, such as open grassed areas and neighbourhood streets around community buildings or routeways through local authority housing are between public and private realms (Malone, 2002). These spaces are then called semi-public spaces (Malone, 2002). Public spaces could also be indoors or outdoors, restrictive or free, democratic and inclusive (Gehl & Matan, 2009).

A discussion about which exact spaces are public spaces and why, are important to discuss. Despite this research not having its focus on a definition of public space, it is desirable to not assume that any public space can have the definition of 'public space', and spaces that may not directly be seen as public spaces could actually be public spaces. The identification of public spaces goes further than just spaces being open to the public. Although this research does not have a main focus on the question of what exactly a public space is, it is important to be able to designate different public spaces to focus on in this research. This study focuses on the city, and is therefore about urban public spaces: public spaces that are located in the city. Traditional urban public spaces are parks and squares (Zang & He, 2020). Other specific urban public spaces include streets, recreation areas, shopping centres, playgrounds, beaches, alleys, and riversides (Tonnelat, 2010; Jalaladdini & Oktay, 2012; Peters & De Haan, 2011; Freeman, 2002; Honey-Rosés et al., 2020). Tonnelat (2010, p.1) describes a historic definition of certain public spaces from urban planning as 'open space': "meaning the streets, parks and recreation areas, plazas and other publicly owned and managed outdoor spaces, as opposed to the private domain of housing and work". Open spaces are thus spaces in the outdoors and open for the public. For this study, only spaces in the outdoors are considered, therefore spaces indoors but open to the public are excluded. This means shopping malls are excluded, but shopping streets are included.

Concluding, this study focuses on spaces in the open air (**open spaces**), which are accessible to everyone (**public spaces**), in the city of research (**urban spaces**). The spaces considered in this study are thus **urban public open spaces**. In this research, these spaces will mainly be referred to as public spaces.

2.2 Use of public spaces

This research wants to gain knowledge about how young people, make use of a space, feel connected to it and appreciate it. This means that space in a certain way means something to people. How this meaning originated is explained by, among others, Dougherty (2006). The research of Dougherty (2006) focuses on how urban public spaces can be created to reflect the vitality of the city by embracing the culture and the people in the city. As part of this, place attachment in urban public space is described. Dougherty (2006) distinguishes two aspects that provide a sense of attachment and identity of public spaces: the **emotional connection** of a public space and the spatial or **physical qualities** of a public space. In this paragraph, these concepts are explained further, and are being complemented by a research questionnaire about public space using the same definitions of those concepts. Additionally, it is argued that the individual characteristics of a person also play a role in how they make use of public spaces.

2.2.1 Physical qualities and emotional connection

Dougherty (2006) explains that people recognize and use spaces based on physical or spatial qualities, and these qualities then also help to form and reinforce emotional connection. Dougherty (2006) relates identity to characteristics of a place that tell something about their physical and social environment. Hough in Dougherty (2006, p.5) described "It is what a place has when it somehow belongs to its location and nowhere else". Additionally, Dougherty (2006) explains that many people develop emotional connections to places based on personal experiences.

Dougherty (2006) argued that people use spaces based on their attachment with those spaces. The physical appearance of a space provides attachment of a space. Dougherty (2006) brings out five elements introduced by Kevin Lynch, that bring out a certain quality and imagination in the city, namely: paths, edges, districts, nodes, and landmarks. These are called the physical qualities of a space. These elements create a strong image and memorability of the certain space (Dougherty, 2006). When a space offers one or more of the five elements introduced, the space will be noticeable for people. Despite the fact that the research of Dougherty (2006) describes five elements, there are also other elements to the physical public space. Some physical qualities of a space are associated to influence social interaction in public spaces (Francis et al., 2012). These include the presence of focal points such as public art, food outlets, connected pathways and seating (Francis et al., 2012). Other physical elements which are aimed at groups or social

interaction are certain facilities, such as restaurants, shops or cinemas (Yousef, 2006). These elements are not described by Dougherty (2006) under physical qualities, however when these facilities are visible in a public space they do provide options such as social interaction for users. Facilities like these are large and therefore clearly present, which makes one not easily forget that this physical elements are present in, or next to, the space. Because of the physical qualities, memories of the place itself are created because the physical appearance stands out. Additionally, physical elements can also be aimed at groups and provide certain opportunities for interaction and experience from which memories arise. The physical qualities then form a spatial meaning for the users, thus creating attachment with the space (Dougherty, 2006).

However, even without the precise physical factors, certain connections with space can be created. Places which have been visited in people their childhood can have an impact on which spaces people feel comfortable with, and have a desire to, visit (Dougherty, 2006). Therefore it is likely that when people have memories of spaces visited in their childhood, these spaces create a bigger desire to visit more often. The previous experiences gained in that public space, ensure a feeling of safety, comfortableness and thus a connection which makes one more likely to come back to that space (Yousef, 2006). People also feel a connection to a place when there is a certain amount of social relationships with others. Dougherty (2006) explains dog owners who meet other owners in the park and groups who gather to play a game of basketball. Personal experiences that make people feel attached to a place can be gained individually but also in groups. Events and festivals can create experiences that become part of group connections to a place (Dougherty, 2006). Public spaces that are designed with the history and culture of the city or neighbourhood, create a connection among users of these spaces (Dougherty 2006). This connection could be created through an historic event that happened, but also design elements, which refer to historic or cultural elements, create emotional connection among users. In reality, such design elements will both be a physical quality and evoke an emotional connection. Historic designs are also landmarks that people quickly recall being there. Therefore these designs are also, and for some people only, a physical quality of the space.

These concepts can be summarised by two key principles introduced by Dougherty (2006). The first key principle summarizes the physical qualities a public space has which contribute to the use of public spaces: "Spaces should provide users with spatial features that contribute to identity, including paths, edges, districts, nodes, and landmarks" (Dougherty, 2006, p.10). The second key principle summarizes the view for the emotional connection one can have with a public space: "Spaces should connect to users by addressing history, ethnicity, and group experiences, and by

creating opportunities for users to symbolically assume ownership and be comfortable in the space" (Dougherty, 2006, p.11).

The two concepts of physical qualities and emotional connection can be extended further. The questionnaire published by Yousef (2006) questioned people about public spaces, and has many similarities with the concepts of physical quality and emotional connection. Although the exact source of research for which the questionnaire has been used is unknown, certain statements of the questionnaire are used in this study as an supplement to Dougherty (2006). The questionnaire by Yousef (2006) has stated a couple statements about qualities of a public space which would make people visit a certain public space. In the questionnaire it was then the intention that people write down whether this is a reason for them to visit a public space or not. The different statements or qualities of public spaces described in the questionnaire which relate to Dougherty (2006) are be added in Table 1. The outcomes from this theoretical framework by Dougherty (2006) are the starting point in the left column of Table 1. The right column summarizes how this research approaches the physical qualities and emotional connections.

Table 1: Definitions of physical qualities and emotional connection

Concepts	Findings from	Qualities of space	Final items used in
	Dougherty (2006)	by Yousef (2014)	this research
Physical qualities	- Spatial features that	- Physical	- The presence of
	contribute to identity	accessibility and	shops, cafes,
	- Paths, edges, districts,	low distance	restaurants,
	nodes, and landmarks	- Natural and	cinemas etc.
		artificial landscape	- A suitable place to
		- Suitable and	engage in activities
		varied places for	such as walking,
		sitting and staying	playing , sports
		- Availability of	- What the place
		cinemas, theater,	looks like, such as a
		cafés, restaurant	beautiful building,
		and mitting spaces	lots of greenery, a
		- Existing of various	fountain, etc
		and different	
		activities	

Emotional connection	- Personal experiences	- Memory	- The sense of
	as individual or group	representation	safety
	- Memories of spaces	- Feeling safety due	- Memories of a
	visited in their childhood	to undesirables	place, experiences
	- A certain amount of	- Sense of	gained there and
	social relationships with	attachment	the attachment to
	others	- Space visibility	a place
	- History and culture	from distance	
		according to feeling	
		safety	

2.2.3 Individual characteristics

This paragraph will explain another reason to why and how people feel attached to, and make use of, a public space. Research has pointed out the importance of individual characteristics, such as age, to explain how connections, attachments and perceptions with public spaces exist.

Different groups of people and individuals give different meanings to space (Madanipour, 1999). The use and perception of 'experience spheres', spaces where people gain experiences, are related to age and education of an individual (Gerritsen & Goosens, 2004). A characteristic of a person can imply that one could prefer to stay inside while another person prefers to go outside and use a certain public space (Rossetti et al., 2019). Evans (2008) describes children and young people as important social actors whose experiences of spaces and places are most likely to vary from adults' experiences. Work on youth in public spaces often goes together with work on childhood studies, and these are subsumed within the subdiscipline 'children's geographies' (Evans, 2008). However, Evans (2008) explains that youth is a transition between childhood and adulthood, and therefore they must be seen as a stand-alone group. Evans (2008) explains that there is a recognition that young people may use and experience space in different ways to children, and therefore youth is an interesting group to research. It could be added that even if youth are distinguished from children there could be a lack of attending the ways in which young people's lives vary from each other (Evans, 2008). There are also other characteristics that play a role among young people themselves that distinguishes them from each other. These are factors such as socio-cultural meanings, or socioeconomic and gendered inequalities (Diensten MMO & GNL, 2008; Evans, 2008). Additionally, hanging out in public spaces does not play an equally

important role in the daily lives of all young people (Van der Meulen, 2018). Some young people prefer to spend their free time at home while others prefer to spend it outside in public space (Van der Meulen, 2018). Therefore, it is important to not consider youth as one big group, but also pay detailed attention to their **individual characteristics**, as they have influence on how a space is used and perceived.

2.2.4 Conclusion

This section has argued what different public spaces are and what certain qualities they have which influence how one becomes attached to a particular space and makes use of it. These are the physical qualities of a space and the emotional connection one has with a space. Individual characteristics also influence the extent to which someone makes use of a particular public space.

2.3 Development in public space

In this research the concept of public sphere will be introduced as being part of public spaces, and this adding to the social development among youth. Furthermore, the public sphere is argued to also be a reason why youth wants to visit a public sphere. First, the original definition of public sphere is explained, along with the definition of public sphere that this research will use. After that, it is discussed how public spheres exists in public spaces. Lastly, the meaning of public spheres for youth is discussed. With that, it is argued that public spaces offer a form of public spheres for youth, which will be further studied in this study.

2.3.1 Public sphere

The term public sphere was introduced by philosopher Jürgen Habermas in 1962, in his work Strukturwandel der Öffentlichkeit, translated into English as The Structural Transformation of the Public Sphere (Mah, 2000). Habermas' work on the public sphere referred to a form of bourgeois in the eighteenth- and early nineteenth-century in Europe, and how the public sphere then declined through the rest of the nineteenth century and into the twentieth (Mah, 2000). Habermas described the public sphere as a mental and physical space, where educated middle-class citizens could freely share their knowledge and discuss their opinions about political and philosophical matters (Inglis & Thorpe, 2019). Habermas saw the public sphere as a domain of social life in which public opinion could be formed out of rational public debate (Habermas in

Papacharissi, 2002). During the process of the public debate, social differences would be put aside, and a critical discussion took place by people only using their reason (Mah, 2000). This discussion could lead to public agreement and decision making, therefore representing the best of the democratic tradition (Mah, 2000). That the public sphere aims to be a form of democracy is also seen in the concept of public in the public sphere, which is closely related to democratic ideals that call for citizen participation in public affairs (Papacharissi, 2000). The public sphere includes conversational freedom, because there were no particular groups or institutions dominated by ones with power, such as the government, that had control over it (Inglis & Thorpe, 2019). This again confirms the idea of the public sphere as having a form of democracy. The public sphere was a space where how people interact with each other would be organized democratically (Inglis & Thorpe, 2019). The public sphere therefore is a sphere where people could discuss and share opinions, knowledge and ideas, free of the influence of power. In its origin, the public sphere mainly had the idea to debate political concerns (Mah, 2000). Habermas already described the public sphere as a sphere where citizens would share knowledge about political and philosophical matters (Inglis & Thorpe, 2019). Additionally, Oliver & Myers in Adut (2012) refer to the public sphere as "the abstract space in which citizens discuss and debate public issues" (Adut, 2012, p. 239). Castells (2008) also discussed this political aiming of the public sphere "it is the space where people come together as citizens and articulate their autonomous views to influence the political institutions of society" (Castells, 2008, p.78). In the research of Nanz & Steffek (2004) on how the democratization of global governance ultimately depends upon the creation of a public sphere, a vision was created on the public sphere. Hereby one of the things they highlight in their research is that of citizen participation (Nanz & Steffek, 2004). Citizen participation and the interaction between people, next to the political aiming of the discussions in the public sphere, is a main part of the public sphere. Even though the public sphere in its origin seemed to include all citizens to take place in the public sphere, it was restricted in terms of class and gender, only bourgeois men could participate (Poor, 2005). In modern days, the public sphere has been expanded to include women and people from all social classes (Papacharissi, 2002).

This study does not reject the idea of the public sphere as political sphere, however this will not be the main focus of the public sphere in this study. For this research, the public sphere will mainly be accessed as a place of participation and interaction among individuals.

2.3.2 Public space as a public sphere

With the public sphere primarily being intended as a social sphere, a social domain where people come to reasoning through knowledge and interaction, it seems as public sphere is not directly related to public space (Cassegård, 2014). Habermas described the ideal public sphere as universal and thereby spatially undifferentiated (Low, 2017). Space therefore is not a necessary ingredient for the public sphere (Cassegård, 2014). However, this does not mean that the public sphere and public space cannot be related to one another. Habermas and other research into the public sphere, have also not ignored spatiality. Cassegård (2014) explains how Habermas described various places or arenas in which the public sphere evolved and where it takes place today. In addition to this, Habermas' model of bourgeois civil society is based on the spatial imagery of the urban café (Low, 2017). This is referred to as a space where people communicate and exchange views, which includes the idea of public sphere (Low, 2017). Additionally, Inglis & Thorpe (2019) describe Habermas' view of how people would meet to discuss, would take place in newly opened coffee-houses in the centre of cities. Barragán (2019) explains that in modern days, the public sphere is seen as a modern public space to exchange ideas among stakeholders and civil society to change the status quo. In the article The Virtual Sphere (2002), Papacharissi introduced the internet as a public sphere, where online discourse would increase political participation and pave the way for a democratic utopia (Papacharissi, 2002). Papacharissi (2002) wrote about the internet as a public sphere as a place of democratic exchange of ideas and opinions. This definition of public sphere is applicable for viewing public space in the city as public sphere: a place where people meet and are able to democratically exchange ideas and opinions. This way of social sharing, is being argued by Paköz et al. (2021) as experienced mostly in public spaces.

Despite Habermas not necessarily viewing the public sphere as spatially existing, there are some examples made, even by Habermas himself, that public space is able to serve as a public sphere. In this research, the idea that public space and public sphere are related to each other is therefore approached. For this research public space is seen as a public sphere, defined by Papacharissi (2002, p.11) as "a place of democratic exchange of ideas and opinions", and Barragán (2019, p. 18) "a modern public space to exchange ideas among stakeholders and civil society".

2.3.3 Public sphere for youth

Research where young people are related to the public sphere has not been done to a great extent. The most useable findings are discussed in this paragraph to argue that the public sphere has an important role in youth their life to fulfil their needs.

In the book European Cities, Youth and the Public Sphere by Siegfried & Schildt (2016), youth is related to the public sphere. Findings from this book show the importance of the public space and public sphere:

The most important place in which groups of youth ... confronted authority ..., was the city, particularly the public space of the metropolis. To this extent, the category of the public sphere needs to be connected to historiographic research into the city and into youth (Siegfried & Schildt, 2016, p. 2).

Although mainly authority and competition are indicated here, the importance of public space for youth is related to the public sphere. Most research on youth and the public sphere, includes recent research on digitization of the public sphere. Madanipour (1999) describes that due to technological change, larger populations, and specialization of activities have led to despatialization of public sphere. Siegfried & Schildt (2016) describes that youth today produces, distributes and coordinates civic messages digitally. A consequence of this is that opportunities for learning no longer take place in traditional spaces like classrooms (Mirra & Garcia, 2017). The civic participation therefore can also take place digitally. The article Virtual Sphere by Papacharissi (2002) in explains the internet as a public sphere. These findings make it clear that youth today participates in the public sphere, especially digitally since the use of the internet. Furthermore, when a pandemic arrives, which forces young people to stay indoors, they will certainly make more use of the virtual public sphere. However because of this, the other public sphere, the public spaces, receive less attention. With a lack of research where youth is related to the public sphere within public spaces, this theoretical framework explains youth can be related to public sphere as follows. Public spheres offer citizen participation and interactions. Siegfried & Schildt (2016) describe that young persons are in transition, and that this transition is characterized by two challenges, one of them being integration into society. This could be related to the public sphere, which offers the opportunity to integrate in society. For youth, the physical context in which they are living and their social environment are part of their development and how they perceive the world (Jolles, 2017). The social environment of the young person provides the

conditions for personal growth of the adolescent. The public sphere therefore, as a social sphere, provides an environment which is necessary for youth their growth (Jolles, 2017). Mirra & Garcia (2017) introduce the term 'participatory culture', and explain that youth engages in so called 'connected learning'. Connected learning is defined as: "when a young person pursues a personal interest or passion with the support of friends and caring adults and is in turn able to link this learning and interest to academic achievement, career possibilities, or civic engagement" (Mirra & Garcia, 2017, p. 145). Here again, the concept of civic engagement is mentioned. Therefore, it is important for youth to participate in their environment, be with their peers and discuss, integrate in society (the public sphere) as a need to develop themselves.

Yousef (2006) suggests a number of statements as to why people would want to visit public spaces. The questionnaire suggests that public spaces are spaces with different types of people, where social relationships and contacts are formed and where a social sphere can be created (Yousef, 2006). The questionnaire itself is not linked to the public sphere, however, these reasons to visit a public space show similarities with it and therefore could be linked to the public sphere. This questionnaire by Yousef (2006) has already been linked to the concepts of physical qualities and emotional connection. In Table 2, a number of statements from that questionnaire are linked to the public sphere. In the left column, the findings from the various studies in this section about public sphere are summarized. The column in the middle describes the reasons to visit a public space by Yousef (2006). The right column summarizes both of the columns results and summarizes the public sphere as approached in this study.

Table 2: Definition of public sphere

	Findings from various	Qualities of public	Final items used in
	research in paragraph	space by Yousef	this research
	2.2.	(2006)	
Public sphere	- Civic engagement and	- High probability of	- The opportunity
	integration in society	forming social	to develop social
	- Exchange of ideas	relationships and	relationships, going
	- A place of participation	contacts	out, meeting new
	and interaction	- Existing of	contacts and being
		different sex and	among people
		age groups	- Meeting with
			friends (peers)

- Suitak	ole space
and ele	ments to
create	social space

2.3.4 Conclusion

Civic engagement and integration in society takes place in the public sphere, as introduced by Habermas. It has also been argued that the public sphere is present in public spaces. This integration in society can both be a reason for youth to visit public space and it also influences social development that takes place in public spaces. For youth it is important to participate in the social or public sphere, because this contributes to their growth and development. With youth using public spaces differently, this has an impact on their development.

2.4 Conceptual model

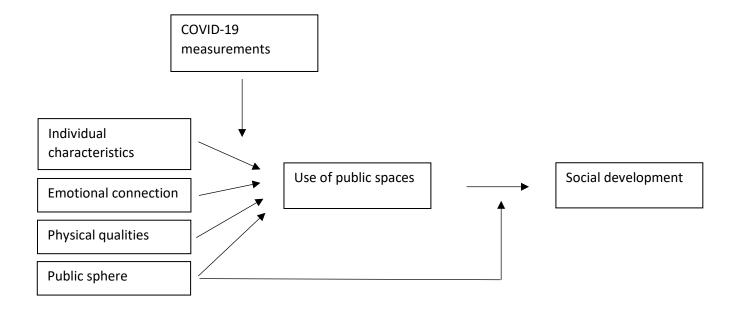


Figure 1: Conceptual model

It is expected that COVID-19 measurements on public spaces influence the use of public spaces due to the limits put on the use of public space. The use of public spaces is expected to differentiate between different individuals and their characteristics. The emotional connection

one has with a public space and the physical qualities a place has, are also reasons why one would use a certain public space. The use of a public space is also expected to be influenced by the public sphere. The public sphere in this research is seen as a form of citizen participation, sharing and shaping knowledge, and discussion. One can use the public space because they like to participate in the public sphere. One can also use the public space as a public sphere. In this way, the public sphere influences the social development of young people. Ultimately, it is to be expected that the COVID-19 measurements will ensure that young people make less use of public space, which has consequences for their social development.

2.5 Conclusion

This chapter has explored what public spaces are and how they give meaning to youth or humans in general. The **physical qualities** of a specific public space, the **emotional connection** one has with a specific public space, and the **characteristics of the individual** are aspects which explain why people feel attached, and thus use certain public spaces. The **participation in the public sphere** adds a reason for youth to visit public space, but it has been argued that the public space also plays an important part in youth their social development. These concepts ultimately form the conceptual model which shows that the use of public space ultimately influences the social development of young people. This is because the public space offers a public sphere, and the use of these public spaces and therefore the public sphere is declining due to the COVID-19 measures.

3. Methodology

To conduct a proper research, a set of well-considered choices is necessary to bring the research to a successful conclusion. This chapter describes the choices made concerning research strategy, research materials, operationalization and methods for analysis.

3.1 Research strategy

The choice of a research strategy is the most decisive decision for the technical design (Verschuren & Doorewaard, 2021). A research strategy consists of interrelated decisions about how the research is conducted by the researcher (Verschuren & Doorewaard, 2021).

One of the key decisions of a research strategy is the choice between breadth or depth. A research that strives for breadth consists of a broad overview of the chosen topic. This type of research takes a larger-scale approach and enables generalization of the results (Verschuren & Doorewaard, 2021). The disadvantages of a broad research are that there is no detail in the results, mostly only general statements can be made about a large group. This type of research therefore lacks the strong substantiation that an in-depth research can create. In a research that strives for depth, the subject is explored in more depth, creating the possibility to get a clearer and more complete picture of the topic of research (Verschuren & Doorewaard, 2021). On the contrast, containing an in-depth research gives less opportunity to gather information about a large group when gathering material. The aim of the research in this paper is to ultimately arrive at general statements about the role of COVID-19 on how young people experience public space in Apeldoorn. Although, this research was conducted in Apeldoorn, this research is a broad research. The research objects in this study have not been examined in depth, but in a broad sense. Ultimately, a broad overview is given of how young people use public space in different phases of COVID-19, and the impact this has on their social development.

The next important decision for a research strategy is the decision to conduct qualitative or quantitative research. Findings of quantitative research are often presented in tables, graphs, figures and calculations (Verschuren & Doorewaard, 2019). This also allows conducting responses from a large number of respondents. Qualitative research often concerns fewer respondents, and findings are mainly reported here with text and considerations (Verschuren & Doorewaard, 2019). The response in qualitative research is more detailed and must be interpreted by the researcher (Moolenaar, 2017). An important distinguishing feature between qualitative and quantitative research is that quantitative research is based on a pre-specified theory or model that is then

tested against the empirical material (Vennix, 2016). In qualitative research there is a continuous interaction between theory, observation and analysis (Vennix, 2016). For this research, this is the case. However, as mentioned, qualitative research often has more depth, and this research aims more for breadth. Despite this, this research is also not entirely quantitative, because few numbers, figures and graphs are used. Certain aspects of this research, for example the observation schedule that has been drawn up, take on a more quantitative form. This research therefore has both quantitative and qualitative aspects. In the end, this research mainly takes on the form of a qualitative case study.

Another consideration for a research strategy is about conducting empirical or desk research. Empirical research is done in the environment, where the researcher goes into the field to gather new information (Verschuren & Doorewaard, 2021). The exclusive use of existing literature is a desk research (Verschuren & Doorewaard). For this research, existing literature is used to form a theoretical framework from which the research argues itself. Existing literature has also been used to conduct information on how public spaces in Apeldoorn have been used by youth before the pandemic. However, this research has also conducted empirical research, because information has been collected from the field to gather insights in how youth uses public spaces in Apeldoorn during COVID-19 measurements. Nevertheless, this research also uses existing literature and information from other sources. This research is therefore a mix between empirical and desk research, since the combination of both eventually leads to conclusions.

One of the chosen research methods for this study is an observation. An observation is a technique of data generation in which observations are made by the researcher himself. These observations focus on the location of persons, situations, objects or processes (Verschuren & Doorewaard, 2021). When studying people's behavior, observations are a suitable the method of choice (Vennix, 2016). When respondents are questioned, verbalized behavior is measured, that which people say and do. According to Vennix (2016) there seems to be insufficient evidence that what people say they do is actually consistent with their actual behavior. Thus, when human behavior is to be investigated, observation appears to be a more valid method (Vennix, 2016). Observations can take a more qualitative or a more quantitative form. A qualitative form of this is the weakly pre-structured observation (Verschuren & Doorewaard, 2021). This form is more free, here as a researcher you only have a list with points of interest in mind. Qualitative observation often consists of participatory observation. Here the researcher participates in the activities of the researched group in a structural manner (Vennix, 2016). The researcher can choose whether or not to make himself known. There is a chance that the subjects will behave differently when they know that there is an observer in their midst (Verschuren & Doorewaard, 2021). A more

quantitative side of observation is a pre-structured observation (Verschuren & Doorewaard, 2021). In this variant, observation categories are split up and described in advance, so that crosses can be placed next to the observation (Verschuren & Doorewaard, 2021). This way of doing observations, has been used for this research. For this method, an observation schedule or protocol is used. An observation schedule is an overview of matters derived from the objective and question, which are indicated with keywords, after which you have to pay attention during the observation (Verschuren & Doorewaard, 2021). This schedule often includes a time phasing. A time phasing is the time or period in which something takes place, this is important information. In this way you find out at what time of day something happens, how long something takes, in what order, and in which previous events or activities something is embedded (Verschuren & Doorewaard, 2021). Observations also have disadvantages. For example, the observer bias can arise if observations are made with opinions and perceptions of the observer. An observation should be made as neutral as possible (Vennix, 2016). That is why it is wise as a researcher to start the research with not too strong opinions and ideas (Vennix, 2016). For this research, an observation scheme has been used based on the theoretical framework, this way the observer bias has been avoided as much as possible. The observation scheme has been included in Annex I.

The second research method used for this study is desk research. Desk research involves using research material collected by others (Verschuren & Doorewaard, 2021). Desk research can be recognized by using existing material, instead of collecting empirical material from the observations. Desk research has no direct contact with the subject matter and the material is used from a different perspective than how it was produced (Verschuren & Doorewaard, 2021). The material used in desk research consists of professional literature produced by other scientists. Desk research also consists out of empirical data collected by other researchers, and official statistical material, data that is collected for a wider audience (Verschuren & Doorewaard, 2021). For this study, desk research was done to gather information and data on how public spaces were used before the outbreak of the pandemic, something that could not be studied empirically in the time frame of this study. Therefore desk research on this topic has been added as a methodology for this study. For desk research in general, professional literature, secondary data, and official statistical material are used (Verschuren & Doorewaard, 2021). An advantage of conducting desk research is that a large number of data can be obtained quickly because there is often not always enough time during a research to collect that data yourself, which was also the case in this research (Verschuren & Doorewaard, 2021). A disadvantage of doing desk research is that the data that the researcher collects has previously been collected for other purposes (Verschuren & Doorewaard, 2021). This can ensure that the collected material does not meet all the

characteristics that it would have if the researcher had collected the data himself (Verschuren & Doorewaard, 2021). In this study, it is the case that the collected data does not cover all the aspects of the use of public spaces as this research has its focus on. For example, data may not exclusively be about young people, and if it is about young people, certain aspects on how long they used public spaces or with whom they used these spaces may miss. Many important aspects will therefore not be available in every source found. For this reason, many different sources are used to obtain a large overview of the use of public spaces in Apeldoorn.

3.2 Research material

When research is being conducted, data and information is collected and analysed. The data and the information are the research material (Verschuren & Doorewaard, 2021). Consideration must be given here about what kind of material is needed to answer the research question.

Data was collected by doing observations in various public spaces in Apeldoorn. Young people who used the public space were studied here based on a pre-made observation schedule. The concepts introduced in the theoretical framework were used for the design of the observation scheme. As a result, data was collected about personal characteristics of youth using the space such as gender, with whom they used the public space, what they did in the public space, and for how long they used the space. Data was also collected on the physical condition of the space in which these young people were located. This concerns the characteristics of the space, such as which facilities can be found there and the presence of certain structures. The observations focused only on young people between the ages of 12 and 18. However, by doing observations, the real age can be estimated incorrectly, therefore people outside the target group could also be included in the results of the observations. The observations took place on June 12, 2021, June 15, 2021, and June 22, 2021. Data from the observations was therefore only collected in this phase of COVID-19 restrictions. Additional data which also includes other phases, has been collected through desk research. Data from the desk research consisted of scientific literature, scientific articles, reports, newspaper articles and information from websites. For this research there was a limited amount of scientific literature available on the topic of public spaces in Apeldoorn. As a result, it was decided to include non-scientific data in this study. The information from nonscientific sources was very useful for this research. For example, many newspaper articles discussed the latest state of affairs on topics related to public space. The observations generated data on how young people experience public space during the easing measures regarding COVID-19. The desk research concerned data on how young people use public space in times without

restrictions, or with very strict restrictions. The results of the observations and the desk research could thus be compared with each other. The results can complement, contradict, or provide different insights. This way, the main question can be answered, which in general wants to know to what extent the COVID-19 restrictions have an impact on the use of public space by young people in Apeldoorn.

3.3 Design of observations

To carry out the observations effectively, a structured observation scheme has been made. This observation scheme is based on the physical qualities of the public space, the characteristics of the individuals, and how they use the public space. This observation scheme is linked to the concepts discussed in the theoretical framework. Because the use of the spaces is being studied, certain aspects of the theoretical framework that are about people their perceptions, are not possible to study through observation. The first applies to the emotional connection a person has with a public space. Secondly, this applies to the extent to which someone finds it important to use the public sphere and whether they think the public sphere contributes to their social development. During the observations, however, it was possible to observe to what extent people make use of the public sphere, this means meeting with peers in the public space for social encounters. Therefore the observations focused on the physical characteristics of the space, and the individual characteristics of the people who used the space. For the physical characteristics presence of facilities, the possibility to undertake activities and the presence of landmarks were included in the observation scheme. In reality, all the physical characteristics that were observed had been written down at the observation scheme, or later described in the observation results in Chapter 4. The individual characteristics in the observation scheme included gender, age, duration of visit and company. During the observations, it turned out that estimating the age was difficult and time-consuming, therefore the age difference was not taken into account in this study. The duration of the visits of people in public space included in the observation scheme, is also linked to the COVID-19 measures. This means whether people really use the space to spend their time or whether they are there for less time due to restrictions. The company of people visiting the public spaces, are also linked to COVID-19 measures, but also to the public sphere. This means whether people use the space to engage in social activities.

The observations took place in public spaces in Apeldoorn, the Netherlands. The public spaces included in this study are parks, squares and the shopping centre. The public spaces chosen for this research are mainly chosen for their central location in the city. Both of the squares that were

observed have a central location in the city. The Market Square is the central square of the city, and the Station Square is located next to the central station of the city. The shopping centre observed is the main shopping centre of Apeldoorn located in the centre of the city. The Oranjepark has been observed due to its central location in the city centre. The other park that has been observed, Mheenpark, was chosen because it is a relatively large park which is located close to the centre of the city. Figure 2 shows the public spaces observed in Apeldoorn for this study. This map was made using Map Image (www.mapimage.nl). (This site did not display a scale for the map).

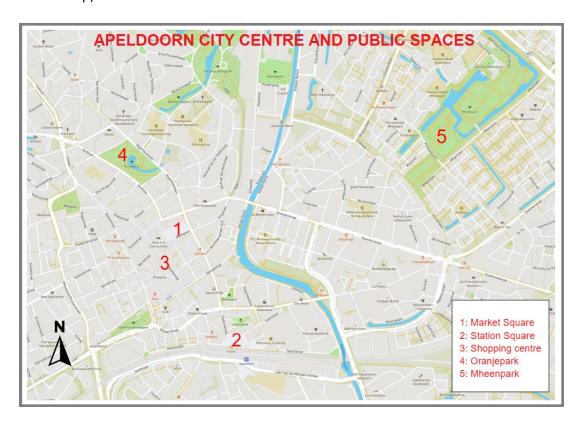


Figure 2: Map of Apeldoorn and the public spaces of the study

The observations for each public space were made on one day in the weekend (Saturday) and one day during the week (Tuesday), or on both. This way, a broader picture is formed about the use of space, because young people go to school during the week and are often free on the weekend. On Tuesday it was therefore also necessary to have the observations in the late afternoon, as young people went to school or had to follow online lessons. In the end, all observations were made in the afternoon. The observations were made in June of 2021, the weather conditions were between 17-24 degrees Celsius, and on all observation days it was sunny. Because the observations were not made on all parts of the day (morning, afternoon and evening), and

because observations were not made on several days a week, these observations have been supplemented with desk research.

3.4 Study area

As mentioned before, the study area of this research is the city of Apeldoorn in the Netherlands. The city is located in the province of Gelderland and is located in the middle part of the Netherlands. The choice to have this research done in Apeldoorn is because Apeldoorn is an average city in the Netherlands, with relatively limited data on youth using its public spaces. As mentioned before in the introduction, Apeldoorn is number 11 of the largest municipalities in the Netherlands with 164.781 inhabitants (AlleCijfers.nl, 2021b; CBS, 2021a). The city of Apeldoorn has 138.143 inhabitants as of 2020 (AlleCijfers.nl, 2021a). Although Apeldoorn is not a very big city in the Netherlands with a lot of public spaces, Apeldoorn does have enough public spaces in the city centre to conduct proper research into various urban public spaces. This way, effective research can be conducted into the urban public spaces in the time frame and with the time available for this research. Additionally, there is limited literature on Apeldoorn and young people in public space. This research will therefore contribute to the development of more theories about this.

Figure 4 under this paragraph shows the published restrictions (in Dutch) by the national government of the Netherlands which were in effect at the time of the observations. It is important to keep these restrictions in mind as they can influence young people their behavior and use of public spaces. One of the most important restrictions for youth that took effect at the time of the observations was that secondary schools had just been re-opened, or had the possibility to re-open (Ministerie van Algemene Zaken, 2021a). Before this, schooling was done online, which ensured that that (most) young people were obligated to be in their homes for a big part of their day. The most important restrictions which did, or did not apply to youth were that up to the age of 12 it was not necessary to keep a distance of one and a haf meters in general. This, however, had been mandatory from 13 years and older in relation to adults (Ministerie van Algemene Zaken, 2021b). It was obligated to wear a mask from 13 years and older at inside public spaces. There was no obligation for young people aged 13 to 17 to keep their distance from people their age in public spaces (Ministerie van Algemene Zaken, 2021b). There was, however, a general advice to keep as much distance as possible, also among young people. This advice has been in use since the start of the pandemic. In the middle of the pandemic there had been other restrictions, like the closure of stores and restaurants and a curfew. During the time of this

research, many restrictions had been adjusted or disappeared. Shortly after the observations, the measures were again adjusted and reduced (Ministerie van Algemene Zaken, 2021c). This ensures that the research focuses itself during strict restrictions and to the end of strict restrictions from COVID-19. Desk research had it focus to all the different phases of the COVID-19 measurements, from before restrictions took in place, to a lockdown and to the reducement of restrictions. The observations focused on a situation were restrictions were still in place, but they were less strict than before. This ensures that during this research results have been gained about the different phases that the pandemic has gone through. In this way a broad picture is formed of how young people used public spaces in different phases of restrictions.

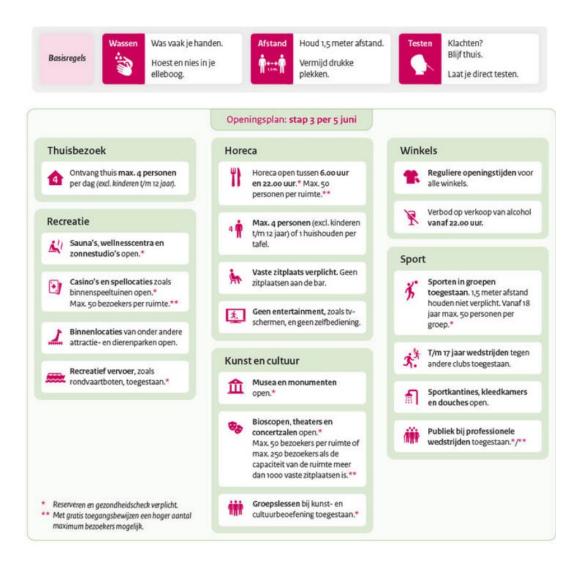


Figure 4: Restrictions (in Dutch) as of June 5th in the Netherlands that were in place during the observations of this research (Ministerie van Algemene Zaken, 2021d)

3.5 Initial quantitative research

This research was initially intended to be a quantitative study which would investigate youth their perceptions and use of public space using a survey as a research method. The perception would then be examined through asking young people about public spaces in an online questionnaire. The questions related to the physical qualities, emotional connection and the public sphere, and individual characteristics, were also asked. The questions focused on the extent to which physical qualities, emotional memories and feelings, and social participation play a role in why young people visit public space. The answer parts were divided into how they would answer the questions without COVID-19 measures and with COVID-19 measures. The answers could thus be compared in whether the answers before and during COVID-19 measures differ. The target group was the same, but with an online questionnaire there is a possibility to reach a large target group, therefore the questionnaire could be handed out to question youth in multiple cities. Because there were no responses, this was ultimately not chosen. The research therefore became more in depth and focused on one city. For future research or to supplement this research, the existing questionnaire can still be administered.

4. Results

In this chapter the collected data is discussed and analysed. This data consists of observations and a desk research. The findings are discussed per sub-question. The observations were made solely on the use and layout of the space. The desk research focused on the city of Apeldoorn during COVID-19, the public spaces in the city of Apeldoorn, and the general use of youth in public space.

4.1 Sub question 1

In this section, results occurring the first sub question are discussed. The first sub question is: How are urban public spaces used by youth in Apeldoorn while COVID-19 measurements? To collect information about how young people in Apeldoorn use the public space, observations were made during COVID-19 measures. Desk research was also done to find additional information about how young people use the public spaces in Apeldoorn during COVID-19 measures.

4.1.1 Observations in public spaces during COVID-19

This section consists of the observations made in a number of public spaces in Apeldoorn. It mainly discusses the use of those spaces by young people and the characteristics of the space. Each public space where observations have been made is discussed separately and includes a photo taken by the researcher during the time of the first observation. A table with the results of the observations is also attached to each public space.

Market Square



Figure 1: Market Square

The Marktplein or Market Square is the city square of Apeldoorn and is centrally located next to the City House. The square is surrounded by bus stops on the east side, the City House on the north side, and the shopping centre and restaurants on the north and west side. The square itself is mostly empty, there are solely fountains built into the ground. Surrounding the square, there is one bench, however there are also railings and stairs in front of the City House that could be used as a place for seating. The square also contains two entrances or exits into the ground to a parking garage for pedestrians. From the square, an inflatable artwork of a monkey above the City House can be seen. A zoo in Apeldoorn, the Apenheul, offered to place the artwork there (Willems, 2019). The artwork aims to show nature in the city and to increase the love for nature (Willems, 2019).

The observation of the Market Square was initially planned for Saturday June 12, 2021. During this observation on Saturday, a market took place on the square. The square was full of stalls and lots of people were walking around. On this day, the square was therefore not observable according to the observation scheme. In the literature it can be found that there is a market on the market square twice a week, a smaller market on Monday and a bigger market on Saturday (Apeldoorn Binnenstad, n.d.). During the observation, there was no apparent use of juveniles in the market.

The full observation of the Market Square took place on Tuesday June 15, 2021. The Market Square was observed for 30 minutes. During this time frame, a total of 19 young people used the square: 13 boys and 6 girls. Most of them, 15 people, used the square to walk or cycle through, and 4 young people stayed there for over 15 minutes. The group who stayed for the full 30 minute observations, stayed on edge of the square near the City House. They had bicycles with them, sat down and used their phones. At one point, friends of them showed up, and some left after a while. There was another group using the square, this was a group of 4 who were cycling and running. Most of the youth walked or cycled through the space by themselves.

Table 3: Observations Marktet Square

	Market Square
Personal characteristics	
Gender	
Boy	13
Girl	6
Total	19
Duration (per group/duo/individual)	
Walk through	10
<15 min	-
>15 min	1
Company (per group/duo)	
Groups	2
One peer	-
One older person	2
Family	2
Use	
Facilities	Parking garage
Constructions	Bench
	Fountains
	Parking garage entrance
Activities	Using phone
	Walking
	Talking
	Cycling

Station Square

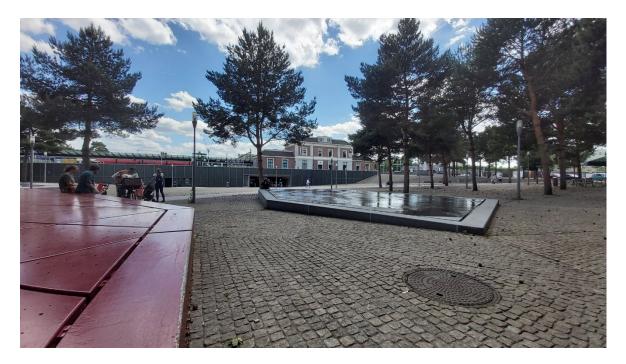


Figure 2: Station square

The Stationsplein or Station Square is a square located next to the main train and bus station of the city. The other side of the square connects restaurants and shops. The Station Square consists of trees, seating constructions, a small skateboard track, and a cycle path that goes under the railway line. One of the paths through the station and the underground bicycle shed end up on the square. The station area in Apeldoorn was renovated in 2008 and has been the same since (Talsma et al, 2007; Polman, 2019). At the time of the observation there was also a little terrace located on the square from one of the restaurants across the road.

The Stationsplein was observed over two days. The first observation took place on Saturday June 12, 2021, in the afternoon. The square was then observed for 30 minutes. 12 boys and 12 girls used the square, a total of 24 young people. Most of them, 23 out of 24, used the square to walk or cycle through. One person stayed at the square for a longer time period, used the space for less than 15 minutes to sit at on a bench and use the mobile phone. There were 2 groups of friends who walked or cycled together, one young person was with family and the others walked or cycled by themselves. The use of the available facilities mainly consisted of the use of the cycling path under the square. A few young people walked across the square to the station, one group of whom had clearly gone shopping together. The person who used the telephone on the bench made use of the existing seating structures. Youth walking from or to the station were clearly wearing masks, one of the restrictions on using public transport. This was also seen on the second

day of the observation. The second observation took place on Tuesday June 22, 2021, in the afternoon. This day there were clearly more youth visible in the space. Most youth were cycling on the cycle paths, they had to use the space to cycle through it. 50 young people were observed cycling or walking in the 30 minute observation time. Most of these were cycling on the cycle path. Many of those young people were carrying backpacks and a few cycled in groups, which may indicate that they had just come from school and were cycling home. However, the Station Square turned out not to be a place where they would meet after school during the observation time. 1 group of 3 people with backpacks and a bicycle had been observed using the square to get together. They sat down, were talking, eating and smoking. Two young people used the skateboard area. The square was also used as a meeting place for 2 boys who were waiting for each other and then started talking together. However, only 6 groups or individuals stayed in the square while other 50 groups or individuals used the space to move through.

Table 4: Observations Station Square

	Station Square day 1	Station Square day 2	
Personal characteristics			
Gender			
Воу	12	53	
Girl	12	35	
Total	24	88	
Duration (per group/duo/individual)			
Walk through	17	50	
<15 min	1	1	
>15 min	-	5	
Company			
Groups	2	8	
One peer	-	10	
One older person	-	2	
Family	1	-	
Use			
Facilities	Seating	Seating	
	Cycling	Cycling	
	Terrace	Terrace	
	Small sports area	Small sports area	

Constructions	Trees	Trees
	Seating constructions	Seating constructions
	Skateboard area	Skateboard area
	Fountains	Fountains
Activities	Using phone	Using phone
	Cycling	Cycling
	Walking Walking	
		Eating
		Talking
		Smoking

Shopping centre



Figure 3: Shopping centre

The shopping centre of the centre Apeldoorn mainly exists of one street, Hoofdstraat. Besides many different shops and restaurants, the shopping centre also includes a mall, however this mall has not been included in the research since the mall is indoors. The observations were once done walking through the Hoofdstraat, and another observation was done sitting on a bench along that

same street. In the table with the results of the observations, the duration of the people using the shopping centre has been noted as inapplicible. This because it was not clear how long people actually used the space for, since all the people were walking through the space. It can be estimated that most people used the space for shopping for an extended period of time.

The first observation took place on Saturday June 12, 2021. The second observation took place on Tuesday June 15, 2021. Both observation days were similar, the only obvious difference being the number of young people that were using the space. During the second observation on Tuesday clearly more youth was using the space than on Saturday. On Tuesday many youth were seen wearing backpacks, indicating they had just come out of school and went shopping after. The most popular activity was to go shopping, especially among girls. This could be seen since girls were walking through the shopping centre together and were carrying bags. On Saturday 20 girls were observed in a 30 minute observation time and on Tuesday 43. Most of them went shopping with one friend. On Saturday 16 boys were observed using the shopping centre and on Saturday 16, overall clearly less than girls. Most youth went to the shopping centre with one peer. Many of the observed youth were wearing masks, indicating they were using the shops, since masks were mandatory in the shops at the time of the observations. Few youth were observed eating ice cream together or sitting down to drink something. On both observation days, but especially on Tuesday, many young people were wearing backpacks, indicating that they came to the shopping centre to spend time after school.

Table 5: Observations shopping centre

	Shopping centre day 1	Shopping centre day 2	
	Saturday	Tuesday	
Personal characteristics			
Gender			
Воу	10	16	
Girl	20	43	
Total	30	59	
Duration (per	Inapplicable	Inapplicable	
group/duo/individual)			
Walk through	-	-	
<15 min	-	-	
>15 min	-	-	
Company			
Groups	1	5	
One peer	7	12	

One older person	4	6
Family	4	1
Use		
Facilities	Stores	Stores
	Restaurants	Restaurants
Constructions	Mall	Mall
	Trees	Trees
	Benches	Benches
Activities	Walking	Walking
	Siting on bench	Drinking
	Shopping	Eating ice cream
		Shopping
		Sitting on bench

Oranjepark



Figure 8: Oranjepark

For the observations, two parks were visited and observed. The first park was Oranjepark. This park is a relatively smaller park and is located next to the centre of the city. The park offers a pond with a fountain and grass fields with paths surrounding it. Ducks are around the pond and coloured flowers grow on some areas of the grass. Along the paths there are benches to sit on,

and on a grass field stands a podium for entertainment. The park also includes a terrace, which is a temporary terrace for the summer, belonging to the Pop-Up Picknick (Boer, 2021). This terrace opened up about a month before the observations took place, and was also there the year before from June to September (Boer, 2021). This was also a time when there were distance restrictions due to COVID-19 in place. The Oranjepark normally offers various concerts, markets, food festivals and many other activities (Apeldoorn Direct, n.d.). Every Sunday in the summer months, a band is performing there (Apeldoorn Direct, n.d.). It is unknown if these took place during the measurers, but this is plausible since no information has been found about any events taking place in the summer of 2020 and 2021. A secondary school is located across the park, whereby the park can offer for a space for students to spend time between their classes. There are also bus stops at both edges of the park, therefore students sometimes have to walk through the park to walk from the bus stop to school, and from school to the bus stop.

The first observation took place on Saturday June 12, 2021. At the first observation there had been protests in the city against restrictions for COVID-19. Many people coming from these protests were spending their time at the park after the protests were done. This also ensured a lot of police to be visible at the park. The Pop Up Picking was open and the terrace was full, however no youth was visible at the terrace. Nevertheless, youth was present in the park at the time. Youth present at the park were mostly in groups, sitting around benches or picnicking on the grass fields. They did not seem to belong to the people from the protests, however they did clearly look at them and talked about them. The groups of friends were mostly staying for more than 15 minutes. The observation took place on a sunny day and therefore most youth were sitting on the grass in the sun.

The second observation took place on Tuesday June 22, 2021. On this day, there were two groups of youth only existing out of boys hanging underneath the trees. They had their bikes with them, were smoking, and were listening to music. Another group of boys was sitting on the grass and talking, they also had their bicycles with them. Two boys sat on a bench together who also had bikes with them. The bikes could refer to them spending time at the park directly after school. Another group of boys was observed hanging behind Pop Up Picking, they were accompanied by older boys. This day the Pop Up Picknick was closed. There were obviously more boys using the space. No group of girls were observed. One girl and a boy walked on the path together and sat on a bench and talked. One girl used the space to cycle through and one girl walked through the park.

Table 6: Observations Oranjepark

	Oranjepark day 1 (Saturday)	Oranjepark day 2	
		(Tuesday)	
Personal characteristics			
Gender			
Boy	19	29	
Girl	15	5	
Total	34	34	
Duration (per			
group/duo/individual)			
Walk through	-	7	
<15 min	2	-	
>15 min	5	6	
Company			
Groups	7	4	
One peer	4	4	
One older person	-	-	
Family Use	-	-	
ose			
Facilities	Terrace	Seating	
	Benches	Walking/cycling	
Constructions	Podium	Podium	
	Bridge	Bridge	
	Trees	Trees	
	Benches	Benches	
	Fountain	Fountain	
Activities	Picknicking	Sitting	
	Sitting on bench	Talking	
	Talking	Smoking	
	Cycling	Listening to music	
	Skateboarding	Cycling	
	Playing soccer	Walking	
	Playing frisbee		
	Walking the dog		

Mheenpark



Figure 9: Mheenpark



Figure 10: Mheenpark

The second observed park was Mheenpark. This park is relatively bigger and exists out of many pathways for both pedestrians and cyclists. Although this park is a bigger park than the other observed park, this park was relatively quiet. This could be explained due to the close location of the other park to the city centre. The Mheenpark, however, is located between residential areas.

Throughout the park there are playgrounds and grass fields. There is an area for sport, including a skateboard track and a basketball court. On a grass field there are football racks. Further the park includes trees, trash cans, lanterns, benches a bridge, and a pond. There is a secondary school located across the park.

The observation of Mheenpark took place on Tuesday June 15, 2021. During the observation it was relatively quiet at the park. Most youth used the park for recreative use and used the spaces for sports activities. Two girls were roller skating on the cycle paths, there were two boys with a basketball at the basketball court, there were boys hanging around the skateboard area and two boys were playing soccer on a grass field. Young people who used the cycle path were a boy and a girl together, a boy alone, and a girl alone with a school bag. One girl used the grass field for sunbathing. The Mheenpark did also include playgrounds. At time of the observations, these playgrounds were only used by little children, the target group of this research was not visible in this space at the time of the research.

Table 7: Observations Mheenpark

	Mheenpark
Personal characteristics	
Gender	
Воу	9
Girl	5
Total	14
Duration (per group/duo/individual)	
Walk through	3
<15 min	1
>15 min	4
Company	
Groups	1
One peer	4
One older person	
Family	
Use	
Facilities	Sports areas
	Playgrounds
	Walking/cycling
	Dog field

Constructions	Playgrounds		
	Skateboard area		
	Basketball area		
	Bridge		
	Trees		
	Soccer area		
	Benches		
	Cycling & pedestrian paths		
Activities	Sunbathing		
	Playing soccer		
	Playing basketball		
	Roller skating		
	Cycling		

4.1.2 The city and the pandemic

In order to obtain additional information about young people in the pandemic, which spaces they used and what they did there, this section examines literature about what young people did during COVID-19 restrictions, or what they were offered in the pandemic in the city of Apeldoorn. This section therefore discusses additional information concerning time frames other than the observations.

Youth in Apeldoorn saw each other less due to the lockdown that came into effect at the end of 2020 (Omroep Gelderland, 2021). Most young people in Apeldoorn had a hard time because of this (Gemeente Apeldoorn, 2021; Omroep Gelderland, 2021). During the lockdown, an online platform had been established in Apeldoorn: YOUNG055 (VNG, 2021). This was created by Tim Koldenhof Productions and Events (Gemeente Apeldoorn, 2021). During the lockdown, online events were organized for the youth of Apeldoorn. Young people created content in a studio for other young people to watch (VNG, 2021). At the beginning of February 2021, the platform attracted about 500 unique visitors per day and grew every day (Gemeente Apeldoorn, 2021). The platform focuses on young people aged 12 to 24 (Omroep Gelderland, 2021). In YOUNG055 preparations were made for physical programs after the lockdown, which indicates that during the period of this study, physical activities would be organized by this platform where young people could physically come together again (Gemeente Apeldoorn, 2021; VNG, 2021).

A newspaper article from March 2020 clarifies that just before the pandemic it was still busy in a number of public areas in Apeldoorn (Heins & Rutgers, 2020). After the government took stricter measures against COVID-19, young people made much less use of those public spaces (Heins & Rutgers, 2020). An example is a football field, where a group of 7 young people played football on an afternoon during the strict restrictions, and also kept their distance (Heins & Rutgers, 2020). According to a newspaper article, young people find the measures intense, however, they do accept the measures (Heins & Rutgers, 2020). The article shows that when there were too many young people in public spaces, they were addressed that this was not allowed (Heins & Rutgers, 2020). However most public spaces were not used by many young people, it was much quieter than before the pandemic hit. During the restrictions, youth workers from Apeldoorn were very active and fulfilled an important role for youth (Gemeente Apeldoorn, 2021). Youth workers know they know what is going on in the neighbourhoods and have good contacts with young people (Gemeente Apeldoorn, 2021).

4.2. Sub question 2

In this section, the second sub question of this study is discussed. The second sub-question is:

What are the differences in how urban public spaces are used by youth in Apeldoorn around the different phases of COVID-19 measurements? To differentiate how spaces were used during the restrictions and before, it has been examined how public spaces were used before the pandemic.

Documents about the public space in Apeldoorn are included in this study, providing information about the public spaces in Apeldoorn and how they are normally used and experienced.

Additionally, it has been studied how young people in general use public spaces. This way, a broad view on the use of public spaces by youth in times without restrictions is created.

4.2.1 Use of public spaces in Apeldoorn

This section discusses what public spaces in Apeldoorn normally have to offer their users and how residents value urban public spaces available in the city. This section therefore examines the normal use of urban public spaces in Apeldoorn, in order to be able to compare this with the use during the different phases of COVID-19.

The public spaces in Apeldoorn are managed by the municipality of Apeldoorn (Diensten MMO & GNL, 2008). Nevertheless, the national government, provinces, water boards, companies, private individuals and other institutions also manage certain public spaces (Diensten MMO & GNL, 2008). The total replacement value of the public space managed by Apeldoorn is more than one billion euros (Diensten MMO & GNL, 2008). In the city centre in Apeldoorn there is a call to improve public space and create a more intensive management in the public spaces (Talsma et al., 2007 & Diensten MMO & GNL, 2008). The fact that public spaces in the city centre need improvement can be noted by residents of Apeldoorn, who experience the public spaces as dirty (Diensten MMO & GNL, 2008). There is chewing gum in the public space and crumbling asphalt, there are damaged light poles, and there is litter from flyers (Diensten MMO & GNL, 2008). A well-maintained public space is important for the appearance of a space (VNG Burgerpeiling, n.d.). A space that is not attractive means that residents are less likely to meet there (VNG Burgerpeiling, n.d.). Additionally, the nightlife and meeting function of the city centre is not appealing to residents (Talsma et al., 2007). Nevertheless, the shopping function of the city centre meets local needs very well (Talsma et al., 2007). Shopping is primarily a functional use of the public space, and in general the entire public space in Apeldoorn is primarily functional (Talsma et al., 2007). The observations also revealed that shopping is a popular activity among young people. The facilities (the shops), are mainly used here. In Apeldoorn, most people go home after shopping for an hour and a half (Talsma et al., 2007). This functional way of shopping therefore seems to have the upper hand in Apeldoorn, although this does not seem to be the case among young people. The observations showed that young people mainly go here after school, which seems to be a pastime to spend together. A report in which a survey was conducted on the quality of the living environment in the city centre in Apeldoorn shows results about what residents think of the facilities in the city centre. Two out of three residents indicated that they did not miss any facilities (Wijkraad Centrum Apeldoorn, 2015). The percentage of residents who did miss facilities, among other things missed a social meeting place (Wijkraad Centrum Apeldoorn, 2015). As discussed in the theoretical framework, a social meeting place is present in a public sphere which can take place in a public space. Therefore, residents may experience a lack of social meeting places in public spaces in the city. Nevertheless, the ambition from Apeldoorn is to put people at the centre of spatial planning and to create a public space that is pleasant and where people want to stay to actually spend their time (Talsma et al., 2007).

As mentioned before, residents find the public space in Apeldoorn dirty (Diensten MMO & GNL, 2008). A clear example of this is the Market Square (Talsma et al., 2007 & Diensten MMO & GNL, 2008). Therefore, according to the municipality, the Market Square was due for renewal (Omroep

Gelderland, 2018). In 2018, an election took place for the best new idea for the layout of the Market Square (Rutgers, 2020). The residents of Apeldoorn were allowed to vote for the best design. All residents of Apeldoorn from 6 years and older were included in the voting process, meaning the target group of the research was also allowed to vote in the design (Rutgers, 2020). Ultimately, a market hall was chosen that will cover almost a third of the square. The new Market Square has been called 'Square of the City' and will also include fountains and tree benches (Gemeente Apeldoorn, n.d.). Today, and also in the future with the new design, the Market Square hosts markets (as observed) and fairs, concerts and other activities (Rutgers, 2020). Activities such as fairs and concerts can be assumed to be aimed for youth, and therefore the space would be frequently used by young people. During these events, the number of young people on the square may increase. This also creates an emotional relationship with the square, they have memories of these kinds of events. In the future, a physical quality will therefore also be added to the Market Square, something that is lacking nowadays. Work is scheduled to start in October 2021 (Gemeente Apeldoorn, n.d.). Findings on the city parks of Apeldoorn show that parks in Apeldoorn are mostly are quiet, which provides opportunities for a peaceful stay (Beckers, 2013). An inventory of quiet areas in the Apeldoorn yields, among others, the locations Oranjepark and Mheenpark (Beckers, 2013). The silence in the parks is also noticeable by the decrease of young people in the city, which means that relatively more elderly people live in the city. This is a phenomenon that takes place in Apeldoorn and also has an impact on the public spaces in the city (Hooijer, 2019; Diensten MMO & GNL, 2008; Talsma et al., 2007). Table 8 shows the age structures in the age group from 10-20 in Apeldoorn and in the Netherlands from 2010 to 2021. This data is retrieved from the Central Bureau of Statistics of the Netherlands (CBS, 2021a). The numbers in the table show the percentage of the age group out of the entire percentage of women or men in Apeldoorn. Within the age group of 10 to 20 year olds, which contains the target group of this study, it is seen that the number of young people has decreased in the past ten years. This is also the case in the Netherlands. The phenomenon that fewer and fewer young people are born has been visible in the Netherlands for some time. In 2021, the average inhabitants of the Netherlands is 42.2 years old. In 1975 this was 33.2 years and in 1950 this was 30.8 years (CBS, 2021b). Compared to then, there are now mainly more elderly people, and fewer young people under the age of twenty (CBS, 2021b). If Apeldoorn is compared with the Netherlands, it differs between men and women whether the percentages are higher or lower than the average in the Netherlands. In general, Apeldoorn has over the past 10 years more men than average in the age group 10-20 years, but fewer women in that age group. However, this age group has been decreasing for a longer time in Apeldoorn and the Netherlands. However, these number are not decreasing faster in Apeldoorn than in the Netherlands. The percentage of young

people in Apeldoorn in the target group of this study, 10-20 year olds, is slightly higher than the average in the Netherlands.

Table 8: Percentage 10-20 year olds in Apeldoorn and the Netherlands from 2010-2021

	Apeldoorn		Netherlands	
	Men	Women	Men	Women
2010	12,6	11,5	12,5	11,7
2011	12,7	11,4	12,4	11,7
2012	12,7	11,4	12,4	11,6
2013	12,6	11,5	12,4	11,6
2014	12,4	11,5	12,4	11,6
2015	12,4	11,4	12,3	11,5
2016	12,5	11,4	12,2	11,5
2017	12,6	11,4	12,2	11,4
2018	12,5	11,5	12,1	11,4
2019	12,4	11,3	12,0	11,3
2020	12,3	11,2	11,9	11,2
2021	12,0	11,0	11,7	11,0

To get a broader overview of this phenomenon, the population pyramids of Apeldoorn of 2010 and 2021 have been added. These are retrieved from the Central Bureau of Statistics of the Netherlands (CBS, 2021a). The population pyramids show the age structure in Apeldoorn and show a comparison with the average age structure in the Netherlands (the line on both sides shows the average in the Netherlands). Compared to the Netherlands, the population pyramid of Apeldoorn is quite similar to the age structure in the Netherlands. For the recent 11 years, it can also be seen that the young are decreasing slightly, while older people are increasing. The fact that the population is getting older and has fewer young people is therefore also noticeable in

Apeldoorn. If this trend continues, it will continue to be noticeable in the future and also in public spaces. Consequences are that when young people go out to public spaces, there may not be any peers present to play with (Hooijer, 2019). The Comfortabele Gezinsstad program has been created to give children the space to live and play in Apeldoorn (Hooijer, 2019). This program shows that youth is still taken into account, despite the decrease of young people in the city. Nevertheless, this specific program seems to focus more on younger children than teenagers.

| Namen, Apeldoom | Vrouwen, Apeldoom | Mannen, Nederland | Vrouwen, Ned

Figure 11: Age structure in Apeldoorn in 2010 (CBS, 2021a)

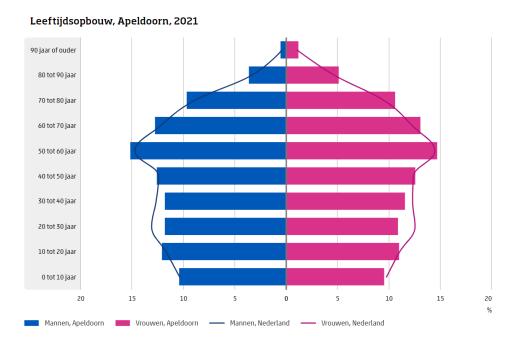


Figure 12: Age structure in Apeldoorn in 2021 (CBS, 2021a)

4.2.2 General use of public spaces by youth

Additional data on how young people use public space is discussed in this section. Due to the lack of literature on the general use of youth in public space in Apeldoorn, this section is based on literature on youth in public space in the Netherlands. This data is additional to how young people in Apeldoorn would use the space and how they feel about public space. Ultimately, a comparison can be made with how young people use the space in times of COVID-19 restrictions.

In general, young people start meeting in public spaces when they enter secondary school, and they take less use of public spaces when they start studying or working (Oost-Mulder & Kunen, 2009). This is equivalent to the research group of this study. Young people balance on the border between being a child and becoming an adult (Filius & Van Melik, 2011). This is related to the period their life in which they are dependent and want to become independent (Filius & Van Melik, 2011). The public space is the only place where they can gather with friends for free, and thus develop their identity towards independence and maturity (Filius & Van Melik, 2011). They thus develop their identity through their social contacts that they have in public spaces. A (public) place for social encounters is important for youth their development process (Filius & Van Melik, 2011). Besides the need to develop themselves, youth also mostly prefers to gather in public spaces for social gatherings (Oost-Mulder & Kunen, 2009). Terraces, squares and the shopping street are designated as meeting places that are popular among young people (Oost-Mulder & Kunen, 2009). Places where you can undertake activities are attractive for young people (Oost-Mulder & Kunen, 2009). These are, for example, sports areas. Sport areas are also spaces to meet each other (Van der Meulen, 2018). Meetings between young people therefore also takes place in areas where activities can be done. So when young people undertake an activity, such as sports, they do so with the intention of meeting each other. The feeling of security is also one of the reasons why young people should visit public space. If they do not feel safe in a public space, this is a reason not to visit the public space (Van der Meulen, 2018). Spaces can also be used as a necessity or functional use, which was also discussed in the previous section (Gehl & Matan, 2009). Young people also use public space to move from their homes to school or from school to their homes (Van Der Meulen, 2018). This was also seen during the observations, where young people used public spaces with their school bags, or cycled through them. Another aspects that youth does consider important in the outdoor space are the presence of benches (Van der Meulen, 2018). This can indicate to use the space for a seat for a conversation or to hang out. Young people find it important to be together in public spaces, and do not want to go to spaces where other user groups are dominant (Van der Meulen, 2018). The activities that young people undertake in public spaces are mainly hanging out, talking, having fun, sharing stories and flirting

(Oost-Mulder & Kunen, 2009). Sports activities are also done by young people in public spaces. Young people spend half of their leisure time with activities that could be done in public spaces (Oost-Mulder & Kunen, 2009). In general, young people want to see and be seen, in a space where they have freedom and no adult supervision (Oost-Mulder & Kunen, 2009).

5. Conclusion

This chapter aims to answer the main research question of this study. The main question of this research is: How do measures in response to COVID-19 impact youth their use of urban public spaces in Apeldoorn, the Netherlands? This question is answered based on the results of the subquestions discussed in Chapter 4. In this conclusion, a conclusion is first drawn for the various public spaces: squares, parks and shopping centres. This is because differences are found between these different spaces. Then a conclusion is drawn for this research in general, including an advice for Apeldoorn. Lastly, recommendations are made for follow-up research into the topic of research.

The results cautiously show that the COVID-19 restrictions do have a certain impact on the use of public space by young people. However, this is still limited within the number of strong arguments. This is partly because observations were made at one specific time in the pandemic, and other sources provided limited information about the use of public spaces by young people in Apeldoorn during different phases of COVID-19 restrictions. Nevertheless, some tentative conclusions can be drawn from the results, but it should be borne in mind that these are not very strongly substantiated yet. More research is needed for stronger conclusions.

Ratings from residents indicated that in general, the city centre of Apeldoorn is not an attractive space for residents to spend their free time. Residents experience the public spaces in Apeldoorn as dirty (Diensten MMO & GNL, 2008). Therefore the municipality has the need to improve the city centre and its urban public spaces. Despite these calls for improvement, and the detailed plan to renew the Market Square in Apeldoorn, there seems to be no improvement to date. During the observations it became clear that young people, especially in the squares in the city centre, do not spend their free time there. The squares are mainly a place where young people cycle or walk through, but do not stay. Because the squares in the city centre were not rated attractive before COVID-19 restrictions, it does not seem that young people used this place in large numbers to come together and stay before restrictions. Exceptions to this are events that could be organized on a square. Events took place less due to COVID-19, which prevented young people from coming together at such events. However, little has been found in the literature about events attended by young people in Apeldoorn, so no conclusions can be drawn from this. There is therefore no evidence that COVID-19 affected the extent to which young people work on their social development in the squares.

Findings from the literature showed that the shopping centre is a functional space in the city centre of Apeldoorn, and (Talsma et al., 2007). Additionally, the shopping function of the city

centre meets local needs very well (Talsma et al., 2007). For youth, this also seems to be the case based on the observations. The observations showed that youth does spend their time together with peers in the shopping centre, and shopping is a popular activity among them. Youth especially used the shopping centre as an activity to do after school. During COVID-19 restrictions with a lockdown, where stores are closed, it is not possible for youth to undertake activities like this. Another space where young people gathered more often are parks. However, young people did make use less of the parks, and other public spaces, during restrictions (Heins & Rutgers, 2020). In situations with less restrictions, the park is a clear public space where young people often meet for social gatherings. Youth also made use of the parks to do sports, additionally, sport areas are also spaces where youth meets each other (Van der Meulen, 2018). The parks were most visited for play and relaxation with peers. Therefore, the public sphere seems to be most commonly found in the parks. From the observations it became clear that young people spend a more time in parks after school, given that they came by bicycle and had their school bags with them. However, when strict COVID-19 measures were in effect and schools were closed, it is likely that youth would take less use of these social gatherings in the park. Despite the fact that young people do make use of these public spaces, the number of young people in Apeldoorn and the Netherlands is decreasing (CBS, 2021a). If this trend continues, there will be fewer and fewer young people in Apeldoorn's public space.

Results show that it is especially important that young people who go to school spend their time together afterwards. During the lockdown when there was no school, it is likely that young people spent less time together in the public spaces. The fact that the schools were closed seems to be the impact of COVID-19 in how young people come together in public space in Apeldoorn. For the future, Apeldoorn will have to take into account the fact that despite the fact that the younger population is declining, they need a public space. The municipality seems to focus strongly on public spaces in general, but does not seem to be concerned with young people so far. Young people do find it important to be together in public spaces, and do not want to go to spaces where other user groups are dominant (Van der Meulen, 2018). Additionally, for young people, the use of public spaces is important for their social development, because they develop their identity through their social contacts that they have in public spaces (Filius & Van Melik, 2011). Therefore, it is important to take this target group into account. In Apeldoorn at the moment, results show that residents of Apeldoorn miss a social meeting place (Wijkraad Centrum Apeldoorn, 2015; Talsma et al., 2007). An advice for Apeldoorn is to create a meeting place for young people, near schools, and to preserve the shopping centre, and improve the public spaces in the city centre. This will probably contribute to how young people use public space.

Research recommendations

To be able to study whether the COVID-19 measures have had a real impact on the development of young people, a longer-term study will have to be carried out. This research has shown that social contacts are an important factor in public spaces for young people and that a public sphere can also take place in the public space. Research has only been done in the spring when the weather was warm. For further research on the use of public spaces by youth during a pandemic, it is important to conduct research in the longer term to include all weather conditions, different time periods of the day, and different COVID-19 measures on public space. Future research could also focus on other cities in the Netherlands, in order to make a comparison or to make a study like this more generalizable.

Another possibility for further research is to continue this research by studying how young people use the urban public spaces in Apeldoorn after the COVID-19 measures. When measures in public space do not apply anymore, a situation has been created with the same non-existing restrictions as before the outbreak of COVID-19. This way, the use of the space before the COVID-19 restrictions, and afterwards, can be compared, and it can be seen whether the COVID-19 restrictions have had an impact.

Another research recommendation is to conduct research on young people's perception of urban public spaces during a pandemic, and whether it has changed compared to their perception of public space before that. The design of this study was initially not only about the use of public space, but also about young people's perceptions of public space. This study was not conducted due to non-response and lack of time. Future research could carry out this research. Here it is argued that the concepts from the theoretical framework of this research influence how young people value and use the space. Through a survey, people are asked about their personal characteristics, why young people visit the public space before and during the COVID-19 restrictions. By conducting this study, or another follow-up study, it is also advisable to study the influence of the COVID-19 restrictions on young people's social development to a broader extent. The purpose of the conducted research was also to be able to make statements about this, but these statements are very limited and cannot be generalized. For future research, it can therefore further investigate the relationship between the use between public spaces and social development.

6. Reflection

After answering the main question of this study, the research process as carried out can be reflected on.

In general, the research has turned out very differently than previously intended. In setting up this research, the aim was to investigate the perceptions and use of urban public spaces by young people in the Netherlands. A conceptual model was therefore proposed for this, an operationalization schedule was made and a survey was drawn up. The target audience were young people in the Netherlands, and an online survey would be sent to them. When it turned out not to be possible to have the survey reach young people, adjustments had to be made to the research. The perceptions could no longer be investigated, so the research focused on the use of space among young people in one city in the Netherlands. Because the research was initially set up differently, and there was a time limit to that research, it was ultimately not possible to study the conceptual model and achieve the full aim of the research. This means that testing to what extent the physical qualities, emotional connection, public sphere and individual characteristics influence the use of a public space could not be investigated to the extent desired. For this study, the non-response could be better addressed by taking non-response into account in advance. This could be done by setting up other research methods beforehand.

Despite the time limit and changes in the research, it is still possible to draw small conclusions about the use of urban public spaces in Apeldoorn and to the impact this has on youth their social development. These conclusions can be drawn from the observations and desk research, but only within the time frame of this research and with the available resources. Observations in particular have been a method of research that has collected much data and provided insight into the public spaces and the use. Observations are also recommended for further research into the perceptions of space, or additional research into the use of space. Although the research only focused on the use of space, the perceptions could also have been investigated by conducting interviews. This could have been tackled differently by drawing up a new method of research to get results on the perceptions. Ultimately, this was not chosen due to the lack of time, but is recommended for future research into how urban public spaces are used.

Since the research started doing observations as a research method later on in the process, the observations were made at a later time than desired. For this study, it might have been effective to make the observations when strict measures were in place, when less strict measures were in place, and during a period without any measures. These would then provide a comparison of whether COVID-19 restrictions indeed have impact on how young people use the space.

Observations were also made once or twice for different public spaces. In further research, observations should again take place one day at the weekend and one day during the week. This was a good choice because in the end it could be seen that the use of space differ between a school day and a Saturday. However, some public spaces have only been observed once, in the future it is useful to observe them more often in order to get a broader picture of the use of the public spaces.

Doing desk research was a proper research method since it did gain additional data and insights for this research. It is advisable to do this again in a follow-up study. What can be tackled differently is the research in a city and the available literature. There was limited literature available for the city of Apeldoorn. There were mainly newspaper articles about the public spaces, but not much scientific literature. For a follow-up study, it is therefore advisable to conduct research in a city that has more literature on public spaces, in order to arrive at strongly substantiated results.

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Annex I: Observation scheme

Personal characteristics
Gender
Boy
Girl
Other
Duration of visit
Walk through
Spend less than 15 min
Longer than 15 min
Company
Multiple peers/friends
One peer/friend
A parent/older person
Family
Other
Take use of present facilities
Engage in activities suitable for the space
Engage in social activities (greeting people, meeting up)

Observed facilities		
Observed activities		
Observed constructions		
Other notes:		