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I never tried the swings before

Perspectives on urban greenspace from children with profound intellectual and multiple disabilities

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Preface

This Master's thesis is Lena Hanses's degree project in Geography at the Department of Physical Geography, Stockholm University. The Master's thesis comprises 30 credits (one term of full-time studies).

Supervisor has been Max Rautenberg at the Department of Physical Geography, Stockholm University. Examiner has been Salim Belyazid at the Department of Physical Geography, Stockholm University.

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Abstract

To achieve the United Nations Sustainable Development Goal 11.7 aiming to create inclusive and accessible greenspaces, there is need to involve children with profound intellectual and multiple disabilities in research and planning practices. The aim of this study is to explore what experiences of accessibility children with profound intellectual and multiple disabilities have of greenspace. Through the qualitative method of go along interviews using augmentative and alternative communication, such as pictures and sign language, children provide their opinions about the public park Långbroparken in southern Stockholm, Sweden. Their experiences are analysed through the framework of environmental justice, exploring fair distribution, recognition, capabilities and functioning. The findings demonstrate that children with profound intellectual and multiple disabilities can indeed be included in research practices through adapted interview situations. Either the researcher needs to be skilled and experienced in alternative and augmentative communication, and preferably have previous relations with the children, or be able to cooperate with someone who has such abilities and connections. Individual experiences of physical and social accessibility in the park create feelings of both outsideness and immersing oneself into nature and highlight the interaction of person and environment. In conclusion, children with profound intellectual and multiple disabilities hold valuable explanations and experiences of what constitutes inclusive and accessible greenspaces and their perspectives are required to fulfil targets such as the United Nations Sustainable Development Goal 11.7.

The photographs in this thesis are taken by the author unless another source is stated.

Keywords

Green access, greenspace, park, children, profound intellectual and multiple disabilities, PIMD, disability

Contents

1. Introduction

As a result of rapid urbanisation, cities are of increasing importance for the future of human development (United Nations, 2017). The United Nations Sustainable Development Goal 11.7 states that: "By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities" (United Nations, 2015). Inclusive and accessible greenspaces are key if all people are to benefit equally from the positive health aspects of greenspaces such as parks (see Stigsdotter et al., 2011). The right to access greenspaces is also discussed in the United Nations Convention on the Rights for Persons with Disabilities (United Nations, 2006: article 30). To know if greenspaces are inclusive and accessible to persons with disabilities, we need to ask users with disabilities. Since the Sustainable Development Goal 11.7 pays special regards to children and persons with disabilities, the research participants in this study are a key group, because they are children with disabilities. The theoretical framework of environmental justice concerns the right to access greenspaces similarly addressed by the United Nations as seen above (United Nations, 2006; United Nations, 2015). Environmental justice, within which accessibility has been studied before (Schlosberg, 2007; Walker and Bulkeley, 2006), acts as the framework for this study, as it explores the use and accessibility that children with profound intellectual and multiple disabilities perceive of a park close to their school. This thesis is part of the Just Urban Green project, led by Sara Borgström and Annika Dahlberg.

To create socially sustainable cities, it is important to include voices of all the people who are going to use the city, as noted by Lid (2013, p. 209): "If design is to be usable by all people to the greatest extent possible, there is a need for knowledge from a diverse number of individual perspectives". Since persons with intellectual disabilities often get overlooked or deemed "too difficult" to interview (see Seeland and Nicolè, 2006), there is lack of research on their perspectives. In addition, according to Boxall and Ralph (2010, p. 173): "People with learning disabilities who do not use speech are often left out of research.". Because persons with learning disabilities often get left out of research, this study wants to involve and have them in focus. The children taking part in this study have profound and multiple disabilities, including cerebral palsy, epilepsy, autism and spasticity. They form a diverse group, where everyone communicates in their personal ways.

The moral worth of persons with disabilities is a human rights issue, as some argue that persons with disabilities are less worth than persons without disabilities. McMahan (2002, p. 153) compare persons with profound intellectual and multiple disabilities to pigs and dogs. The fact that this view still exists, in ethical debates and scientific research, is a reason why research including persons with disabilities is needed. Persons with disabilities are equally valuable, and children with disabilities are still children, however marginalised they may be (Mietola et al., 2017; Vehmas and Curtis, 2017). Alternative communication is key to explore the personal experiences, beliefs and opinions of the children in this study (Klotz, 2004; Cameron and Murphy, 2006; Cambridge and Forrester-Jones, 2003), which are needed if we are to include this often-overlooked group in research practices in the future.

1.1. Background

It is estimated that around 15 per cent of the world population is living with some type of disability (World Health Organisation, 2007). In Sweden, the subsequent number is around 10 per cent (Stockholm Traffic and Public Transport Authority, 2008). Around 1.8 million swedes have some kind of permanent disability. Around 500 000 swedes have limited mobility, and around 45 000 people have moderate or profound intellectual disabilities (Stockholm Traffic and Public Transport Authority, 2010, p. 105). According to Borgström and Carlberg (2008), the number of persons living with multiple or profound disabilities is hard to estimate but is believed to be 7000 (of all ages) in Sweden. The primary reason for the uncertain numbers is that it is not legal to keep records of persons with disabilities (Borgström and Carlberg, 2008).

In the regional development plan for the Stockholm region, RUFS 2050, an objective is to strengthen the positive health aspect and ecological benefits of greenspaces (Region Stockholm, 2018). Accessible parks and greenspaces are regarded in the development plan as beneficial for a good life quality and wellbeing. Furthermore, the plan states that the city environment with its public places such as squares, parks and greenspaces should be designed to promote interactions, experiences and culture. Although there is a vast variety of greenspace such as parks in Stockholm, the regional development plan also states that access to greenspace is not self-evident. Enhancing both physical and social accessibility, both types must be improved to achieve the goal of accessible parks and greenspaces (Region Stockholm, 2018, p. 115, p. 147-150).

According to a review of greenspace literature by Taylor and Hochuli (2017), there are many definitions of greenspace. While some authors do not define greenspace at all, others fall within two categories of definitions: 1) Greenspace as nature, or 2) Greenspace as urban vegetated space. The first category, greenspace as nature, views greenspace as synonymous with nature. Including bodies of water and geological formations, this first group of definitions provides a macro scale understanding of greenspace. The second category is focused on urban environments with human influence and reliance, such as parks, gardens and urban forests (Taylor and Hochuli, 2017). Since this study is carried out in an urban environment, it will use a definition of greenspace within the second category. Greenspace is regarded as an area where nature is dominant, in a park such as Långbroparken, the case study area of this project which will be further presented in chapter 4. Parks are defined by Wood et al. (2017, p. 66) as: "Prepared grassed areas catering for a range of active and passive recreational needs". In accordance with the policy documents from the Stockholm Traffic and Public Transport Authority (2010) and Region Stockholm (2018), this study regards the terms of greenspace and parks as interchangeable.

1.2. Research aim and research questions

The aim of this study is to explore what experiences of accessibility children with profound intellectual and multiple disabilities (PIMD) have of greenspace, more precisely Långbroparken, near their school. This includes methodological considerations on how to

interview children with PIMD and investigating how children with PIMD may be included in research practices. Based on the aim of the study, the following research questions are formulated:

1. In what ways may children with profound intellectual and multiple disabilities be included in research practices?

2. What experiences of accessibility do children with profound intellectual and multiple disabilities have of urban greenspace?

1.3. Disposition

In chapter two, the theoretical framework for this study is outlined. The main theories are environmental justice and disability studies. Chapter three provides a literature review of previous research on health and access to greenspaces, as well as disability studies in greenspaces.

Chapter four consists of methodology. First, the case study is presented in form of interviewees and study site. Second, the methods for data gathering and data analysis are discussed. Third, ethical considerations concerning interviewing children with PIMD and the limitations of the study are accounted for.

The results are presented in chapter five and are organised by the places visited in the park. In chapter six, the results are discussed in relation to the theoretical framework in chapter two and the literature outlined in chapter three, structured by the research questions. The conclusions of this study are presented in chapter seven, along with recommendations for future research. References are found in chapter eight.

2. Theoretical framework

The theoretical framework for this study includes environmental justice and disability studies. As discussed below, environmental justice is a movement focused on justice, conceptualised in several ways, including distribution, recognition, capabilities and functioning (Schlosberg, 2007). Environmental justice theory also regards accessibility to goods, as discussed by Rawls (1971). Disability studies have changed from primarily being focused on impairments, to including social stigma and person-environment interactions (World Health Organisation, 2011). This study uses the relational model of disability, where disability occurs in the interaction of person and environment (Goodley, 2011; Lid, 2013).

2.1. Environmental justice

Environmental justice originated in the US in the 1980s, as a grassroots movement promoting the rights of disadvantaged groups in society (Schlosberg, 2007). Primarily concerned with pollution and other environmental damaging processes largely affecting poor communities and people of colour (see Bullard, 1983), the focus of environmental justice slightly shifted as the movement was introduced in Europe (Laurent, 2011). The European setting added social contexts producing injustices to the issue of unjust distribution of environmental "bads" (Laurent, 2011; Schlosberg, 2007; Walker and Bulkeley, 2006). The definition of justice in environmental justice was originally based on the theories by Rawls (1971), focusing on distribution of goods, but has expanded to include the terms distribution, recognition, participation, and capabilities (Schlosberg, 2007):

> Environmental justice movements explore, represent, and demand justice – fair distribution, recognition, capabilities, and functioning – for communities as well as individuals. (Schlosberg, 2007, p. 4).

Incorporating the concepts of redistribution and recognition, Fraser (1997) argues that these terms are intertwined parts of justice. Redistribution encompasses socioeconomic injustice, while recognition is concerned with cultural disrespect (Fraser, 1997). Recognition is seen as the dismantling of institutional power preventing certain groups from participating in society (Holifield, 2015). In cohesion with the environmental justice theory, Stenhammar, Rinnan and Nydahl (2011) link recognition to participation, as they argue that children have the right to speak their minds. Children have different views than adults and prioritise different things and are often more capable of expressing these than adults know. Further, participation has positive effects on health, independence and emancipation, and efforts that are tailored to meet children's needs have proven to be the most successful (Stenhammar, Rinnan and Nydahl, 2011). Similarly, Young (1990) argues to broaden the concept of justice, promoting inclusion and participation of marginalised groups in decision making processes, as seen in Cele and van der Burgt, (2015; 2016) and van der Burgt and Cele (2014).

Participation is also acknowledged by Amartya Sen (2005) and Martha Nussbaum (2000), within the capabilities approach. Both Sen and Nussbaum argue that participation is a key aspect in defining justice from a capabilities perspective. The capabilities approach understanding of justice is a linked concept of distribution, recognition and participation (Schlosberg, 2007, p. 33-34). Capabilities are what helps us to turn basic goods into "functioning" of human life. For example, visiting a park is a functioning. That makes transporting yourself there and moving around in the park capabilities necessary for that functioning. As explained by Schlosberg:

> *Functionings* refer to various doings and beings: these could be activities (like eating or reading or seeing), or states of existence or beings: these could be activities (being well nourished, being free from disease). (Schlosberg, 2007, p. 30).

Capabilities are linked to distribution, as distribution affect people's functionings. Even though two persons have the same primary goods, such as a nearby park (Rawls, 1971), their capabilities to turn the park into a functioning vary. This is evident when discussing persons with disability, as their capabilities to turn the park into a functioning may be weaker than the capabilities of persons with no disabilities. Hence, there is a distinction of primary goods and the opportunities to turn these into functionings (Sen, 2005).

Nussbaum (2000, p. 78-80) provides a list of capabilities necessary for functioning. The list includes some points of specific interest for this study:

- "Bodily integrity: Being able to move freely from place to place; having one's bodily boundaries treated as sovereign…"
- "Play: Being able to laugh, to play, to enjoy recreational activities." (Nussbaum, 2000, p. 78-80).

Nussbaum (2000) argues that to achieve the points presented above, access is key. Without accessibility to greenspace, one is not able to enjoy the positive health benefits of it (Nussbaum, 2000). In the World Report on Disability (World Health Organization, 2011), accessibility is defined as:

> Accessibility describes the degree to which an environment, service, or product allows access by as many people as possible, in particular people with disabilities. (World Health Organization, 2011, p. 301).

Accessibility may be further elaborated into physical access, communicative access, informative access and psycho-social access (Hallberg and Hallberg, 2018). Physical access concerns access to public spaces, with regards to barriers such as stairs and thresholds. Communicative access is about adequate lighting and audible aids, while informative access regards information to the public, such as signs in the metro and websites on the internet written so that everyone can understand it, for example in Braille. Psycho-social access is obtained

when there is no negative attitude from society, and persons with disabilities are equal part of society (Hallberg and Hallberg, 2018).

In addition, Wang et al. (2015) and Wang, Brown and Liu (2015) provide a distinction of objectively determined access and individually perceived access. Although the physical and locational factors are dominant in influencing perceived accessibility, social factors such as what groups are using the park, safety and leisure time available are also significant. The inclusion of social and attitudinal dimensions of accessible environments are also emphasized by Fänge, Iwarsson and Persson (2002), and Lid (2013). As put by Lid (2013, p. 212): "… even when physical barriers have been removed, there may be negative attitudes, ignorance and prejudice associated with disability than can cause barriers."

Accessibility is sometimes used as synonymous with usability, to describe means for equal participation of persons with disabilities. A distinction of the terms is necessary when performing deeper analyses: accessibility describes if you can roll up to the swing set in your wheelchair, while usability refers to your possibility to use the swings (Public Health Agency of Sweden, 2011). Jensen, Iwarsson and Ståhl (2002) perceives accessibility as the relation between functional capacity and environmental demand. These two components may be altered to increase accessibility. One may increase one's functional capacity through physiotherapy, and environmental demand may be decreased through for example curb cuts. Further, persons with lower functional capacity are more sensitive to environmental demands than persons with higher functional capacity. The performance of a person with lower functional ability may be increased through limiting the environmental demands (Jensen, Iwarsson and Ståhl, 2002). Charles and Thomas (2007) argue for the inclusion of disability within the environmental justice movement, emphasising persons with disabilities form a diverse group and are entitled to being treated as such. On the same note, Jampel (2018) discuss the intersection of environmental justice and disability justice. Ending ableism, the systematic oppression of persons with disabilities, goes well with the environmental justice values outlined above.

This study adopts the concept of environmental justice from a capabilities approach. Functionings such as being out in nature, as well as capabilities of play and enjoying recreational activities are of interest to this study. Justice in terms of accessibility will be further discussed in the following chapters.

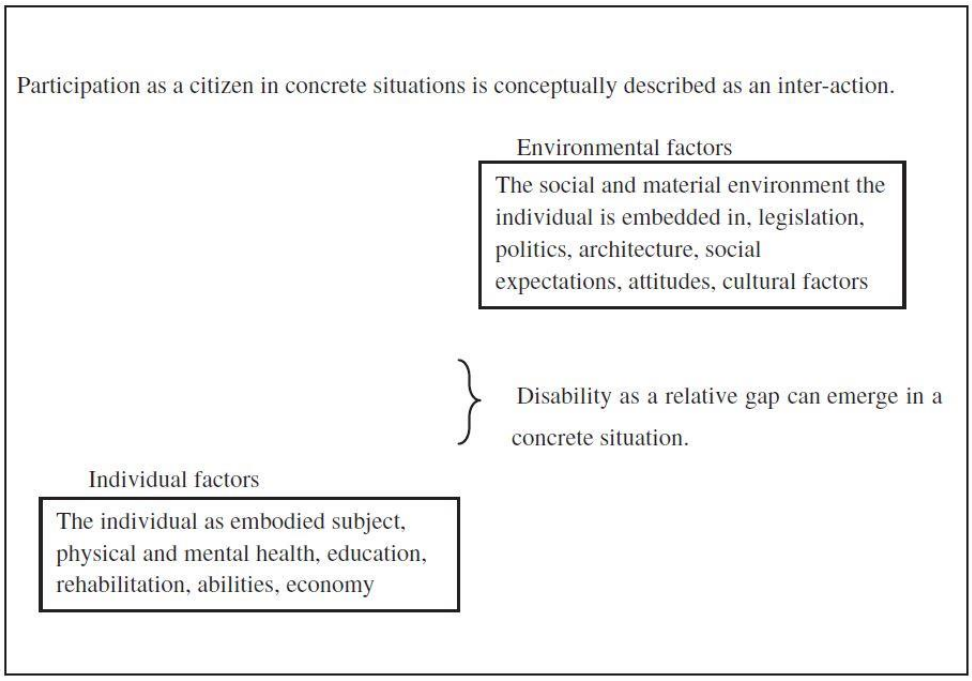
2.2. Disability studies

Parr and Butler (1999) present two approaches to disability studies. The first approach, the medical model, considers disability as a medical condition, a physical or mental impairment. This perspective offers a somewhat simplified view of disability, as it reduces it to a medical condition. The second approach, the social model, considers the distinction of *impairment* and *disability.* In this approach, the impairment is the existing medical condition, and the disability is created by societal factors. The World Report on Disability (World Health Organization, 2011) discusses the medical and social approaches to disability studies and argue that there has been a shift since the 1970s towards regarding people as disabled by society in contrast to the

medical perspective of people being disabled by their bodies. As for disability studies in geography, it is a subject that has been neglected (Parr and Butler, 1999). It was not until the 1990s that human geography as a discipline took an interest in the geography of disability and built its research on the two approaches presented above. The medical model has provided a base for positivistic research, while the social model has enabled research of post-positivistic nature (such as postmodernism) as well as social theory (Parr and Butler, 1999).

In addition to the medical and social models of disability studies, there are approaches specifically designed for the geography of disability. Approaches to geography of disability include: *The social barriers approach*, in which socially constructed barriers disable people with perceived impairments; *The minority group model*, where persons with disabilities are regarded as a minority group, such as other groups that are devalued and stigmatised (e.g. people of certain colour, race or sexual preference); *The cultural model of disability*, perceiving disability as being shaped by historical and cultural contexts, with the need to be understood in relation to the "abled"; and *The Nordic relational model of disability*, or relational model, in which disability occurs as a combination of body/mind and environmental factors (Goodley, 2011). Disability is seen as a relative concept and depends on situational and contextual factors. The relational model focuses on person-environment interactions, as shown in figure 1 (Lid, 2013).

Figure 1. Relational model of disability (Lid, 2013, p. 206).



All four approaches to disability studies mentioned above originate in the western world. The social barriers approach has dominated British research, while the minority group model and the cultural model are both common in the US and Canada. The Nordic relational model unsurprisingly originates from the Nordic countries (Goodley, 2011). The presentation of the models above shows a Western bias in disability research, and there are ongoing discussions on the social model as being particularly developed for rich Western countries (Swain, 2004).

However, an example from India, where impairment is closely linked to poverty, shows use for the social approach in developing countries as well. In addition, the global span of the disabled people's movement is demonstrated differently around the world. While in developing countries, the struggle is to achieve community-based initiatives, the developed parts of the world aim for independent living and participation in society, and it is only fair that more developed countries have gotten further than developing countries in the disability justice issue. An example from Zimbabwe states that the language used to describe persons with impairments is further stigmatising disability issues, which highlights the importance of history and culture in disability issues, that is included in the cultural model (Swain, 2004). As disability studies are present around the world, it is clear this is a global concept. Like environmental justice, disability justice/studies are of global scale, even though focusing on local contexts.

This study uses the Nordic relational model of disability, meaning it regards disability as the gap between individual capabilities and environmental factors (Lid, 2013). For example, the ability to go in one's wheelchair is an individual capability. Loose gravel on a playground is an environmental factor. The gap between the individual's capability and the loose gravel is then the disability.

The United Nations Convention on the Rights of Persons with Disabilities (United Nations, 2006: article 1) states the following:

> Persons with disabilities include those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others.

A wider perspective on disability is provided by Goodley (2011), who sees disability as occurring when society puts up barriers, both physical and psychological ones. These barriers may form hinders to some and be unnoticed by others (Goodley, 2011).

In disability studies, disability is seen as a social, cultural and political phenomenon. There is a distinction between the phrases *impairment* and *disability* (Goodley, 2011). The following definitions are found in Goodley (2011, p. 8):

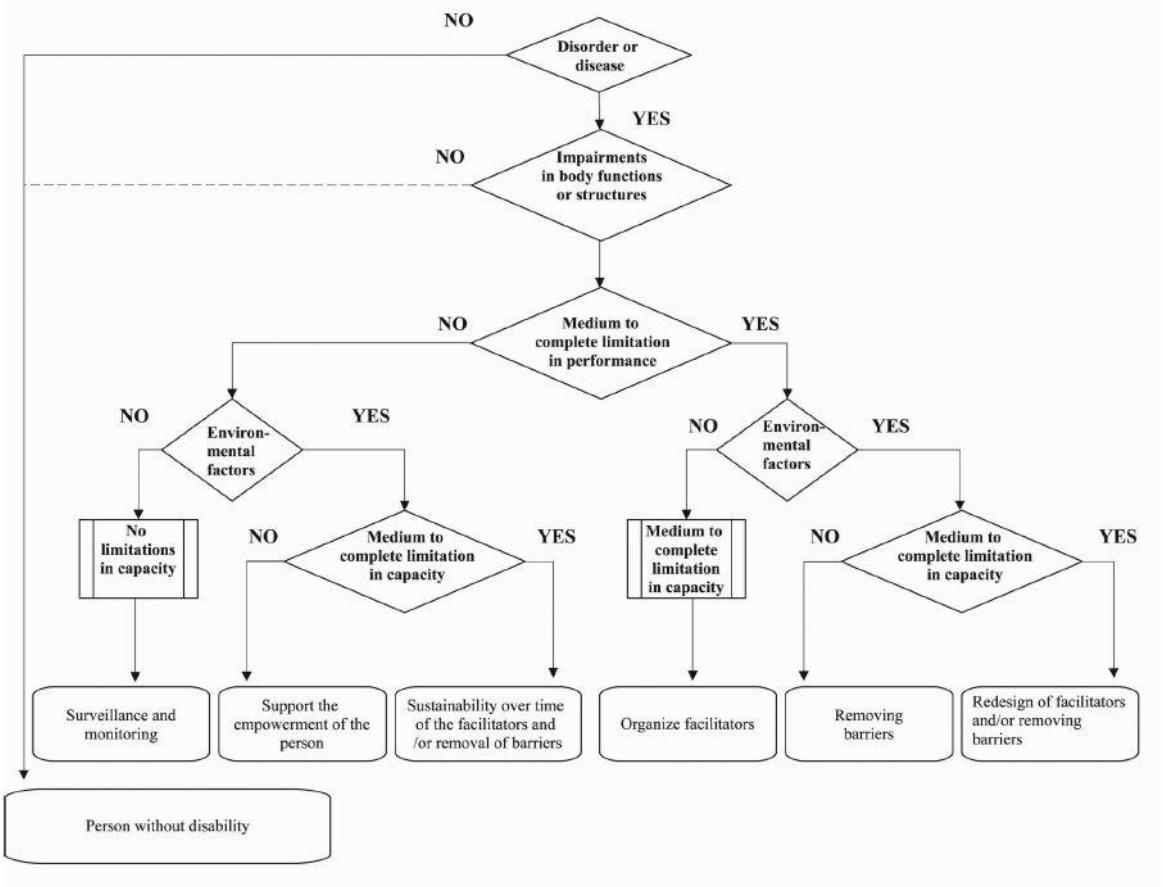
> Impairment: is the functional limitation within the individual caused by physical, mental or sensory impairment.
>
> Disability: is the loss or limitation of opportunities to take part in the normal life of the community on an equal level with others due to physical and social barriers.

Gleeson (1996) writes that disability is a social oppression, and that impairment is a defect on the human body. The experience of disability is termed *disablement* and is a geographical phenomenon since it is a socio-spatial process. Thomas (2004) contributes to the discussion on the concepts of *impairment* and *disability* by regarding the debate as strengthening for the field

of disability research. According to Thomas (2004) the main perspectives on disability are the Marxist/Materialist and the Postmodernism/Structuralist. The Marxist/materialist view is the basis for the social model in disability studies, regarding disability as structures that exclude persons with impairments. As a response to the Marxist/materialist perspective, the postmodern/structural approach arose. The process of becoming a disabled person is seen as guided by social constructions and hierarchical structures. The concept of impairment has long been rejected by Marxists/materialists, motivated by the fear of it stealing focus from the social oppression facing persons with disabilities. Some argue it is unavoidable to discuss impairments, while others see the term as deteriorating (Thomas, 2004).

Francescutti et al. (2009) state that the political meaning of how disability is defined is often underestimated. They investigated how to provide public services and benefits with the help of the International Classification of Functioning, Disability and Health (ICF). The results showed that the United Nations Convention on the Rights of Persons with Disabilities is crucial in establishing an assessment framework for person-environment interactions. Their ICF protocol is developed from the United Nations Convention on the Rights of Persons with Disabilities (2006) and is thus driven by the rights of persons with disabilities. As part of their work, Francescutti et al. (2009) constructed a person-environment interaction classification tree (figure 2). This framework will be applied and further discussed in chapter six.

Figure 2. Person-environment interaction classification tree (Francescutti et al., 2009).



3. Literature review

Greenspaces and parks have been researched from many perspectives and academic disciplines, but the literature has been predominantly quantitative (Wang et al., 2015). Such research mainly concerns five aspects: the history and ideology of greenspaces and parks, access and utilisation, sustainable urban livelihoods, ecosystem services benefits and health and well-being of urban residents (Byrne and Wolch, 2009). Geography as a discipline has contributed with qualitative research with the perspectives of environmental justice, cultural landscape and political ecology and quantitative discussions on health, ecological impacts and access through for example GIS analysis (Byrne and Wolch, 2009).

This chapter is divided in two parts. The first one regards health and access to greenspaces, as previously researched by Akpinar (2016), Grahn (1989), Macintyre, Macdonald and Ellaway (2008), Wang et al. (2015), and Wang, Brown and Liu (2015) among others. The second part consists of the scarce literature on disability and greenspaces (Corazon et al., 2019), as studies including children with PIMD mostly focus on the children's interactions with other people (Axelsson, 2014; Nijs, Vlaskamp and Maes, 2016).

3.1. Health and access to greenspaces

Nature has positive health effects (Hartig and Cooper-Marcus, 2006; Stigsdotter et al., 2011) and there is a wide scope of literature on the health effects of green spaces (Annerstedt and Währborg, 2011). In urban areas, greenspaces are greatly influencing human health and well-being (Ulrich, 1984; Grahn, 1989; Kaplan and Kaplan, 1989). Greenspace literature includes both physical health (Lachowycz and Jones, 2011) and mental health (Coldwell and Evans, 2018). Thanks to the positive health effects of parks they are considered to be environmental goods, and the access to them becomes an environmental justice issue, as a person lacking access to greenspace miss out on positive health aspects (Rawls, 1971; Schlosberg, 2007).

There are different opinions regarding individuals with disabilities and their perceptions of greenspaces. According to Stigsdotter (2015), a person suffering from stress or other illness experience green spaces differently to a healthy person, and persons with PIMD experience urban green spaces in a different way than persons with no disabilities. In contrast to Stigsdotter (2015), Corazon et al. (2019) refer to US research arguing that persons with disabilities share the same environmental preferences as able-bodied persons (see for example Brown, Kaplan, and Quaderer, 1999; Lovelock, 2010; Moore et al., 1996).

Distance to greenspace is an important factor in determining how much people use greenspace, and, consequently, benefit from its positive health effects. Wood et al. (2017) studied the relationship of greenspace and mental wellbeing, and their results complement previous research showing greenspaces have positive effects on health by highlighting the importance of local parks within walking distance. They also note the social benefits of urban greenspace, where parks act as spaces for social interactions (Wood et al., 2017). Similarly, Akpinar (2016)

explores urban greenspace and health in Turkey through a survey. The results show associations between urban greenspace, physical activity and both physical and mental health. The distance and the quality of urban greenspace were identified as important factors for how much physical activity the respondents performed in the urban greenspaces. Findings include the frequency of physical activity in urban greenspace improved both physical and mental health, while large and open urban greenspaces improved physical health (Akpinar, 2016).

Bell et al. (2014) provides another approach to the positive health effects of parks, focusing on people's individual preferences rather than geographical distances. Such preferences are preferably gathered through interviews or go along interviews, as Carpiano (2009) show by discussing the connections of place and health. In addition, Hitchings (2013) question the assumptions made of people's behaviours and argue for more research on individual preferences. Hitchings (2013) also discuss how research on parks and urban greenspace tend to involve persons who use and enjoy such spaces and argue research practices should broaden its sampling of research participants.

Perceived (self-reported) and geographic (objectively determined as per GIS-analysis) access to urban parks and often differ (Macintyre, Macdonald and Ellaway, 2008). Wang et al. (2015) use the theory of planned behaviour as a starting point for their research on park access in Australia. Their theory of planned behaviour includes variables such as: leisure time, personal effort, subjective norm, attitude, perceived accessibility, past use behaviour, and use intention. Through their quantitative model, it is concluded that perceived accessibility was the strongest variable. This finding makes the authors call for more research on the "socio-personal dimensions of perceived park accessibility" (Wang et al., 2015, p. 94), which is what this study aims to explore.

Also discussing perceived park accessibility, Wang, Brown and Liu (2015) conclude: "increasing park infrastructure may not necessarily improve perceived access to parks" (p. 53). Physical and locational factors are the most important in perceived park accessibility, including proximity to the park, a pleasant walking experience, and enough parks in the neighbourhood. The social variables were less important than the physical and locational ones, but still noteworthy. Social variables include cultural groups using the parks, shared activities, safety, and available leisure time. Investigating five dimensions of accessibility, physical, transport, knowledge, social and personal, Wang, Brown and Liu (2015) found evidence for all but the knowledge dimension as instrumental in creating accessibility. Based on their results, Wang, Brown and Liu (2015) recommend tailoring park programmes and events based on local people's preferences. By designing parks according to the preferences of people close to it (i.e. the people who will likely use it the most) parks becomes more attractive and accessible (Wang, Brown and Liu, 2015, p. 65).

3.2. Disability studies and greenspaces

Disability studies on parks and greenspaces include research on accessibility for persons with different impairments (Corazon et al., 2019; National Board of Forestry, 2005; Seeland and

Nicolè, 2006; Stigsdotter, 2015), but tend to not involve persons with intellectual disabilities (Mietola et al., 2017). Within the Just Urban Green project, Johansson (2017) and Sluimer (2018) explore access to green spaces from wheelchair perspectives, and while both studies include persons with mobility restrictions, no persons with intellectual disabilities participated (Johansson, 2017; Sluimer, 2018). In addition, accessibility to playgrounds for persons with disabilities have been studied by the Swedish Association of Local Authorities and Regions, (2006) as well as Prellwitz, (2001; 2007) and Prellwitz and Tamm (1999).

The National Board of Forestry (2005) explore access to forests and parks for persons with disabilities. In their section on parks, they discuss park design and some aspects important to make parks accessible. One such factor is surfacing on paths, which is of great importance to visual impaired users. They also note how fountains may be interesting additions in parks, as the sound could help with orientation for visually impaired users. Benches are also seen as key features, to provide resting places in a park. The National Board of Forestry (2005, p. 51) also note that there should be a flat surface next to the benches, so that a person in a wheelchair can sit next to a person sitting on the bench.

Seeland and Nicolè (2006) explore the "Garden for All" on Isle of Mainau in southern Germany. Through a survey with face to face interviews, they aimed to gather empirical knowledge of park usage and green space use. Seeland and Nicolè (2006) divides their respondents into three groups: "disabled", "weak users" and "standard users". The disabilities within the "disabled" group of users consisted of different physical impairments. However, persons with intellectual disabilities were not part of the study:

> "Mentally disabled were not interviewed, as it was considered too difficult to interview them." (Seeland and Nicolè, 2006, p. 30)

Their results show the group of "disabled users" feel stigmatised by explicit measures meant to suit their needs. "Weak users" however, mainly saw the positive effects of the especially designed spaces. The results also emphasise that future parks will have to be easily accessible and be designed for a variety and diverse user group (Seeland and Nicolè, 2006).

Fänge, Iwarsson and Persson (2002) explore accessibility in public environments from teenagers with disabilities perspectives in the Swedish city of Kristianstad. Through a questionnaire, 33 teenagers were asked to share their opinions on accessibility. For outdoor environments, most of the teenagers commented on surface material such as paving stones, as an obstacle for accessibility. According to Fänge, Iwarsson and Persson (2002), when deciding where to go or what facilities to visit, teenagers with mobility restrictions take accessibility into account. Because of inadequate accessibility, the research participants become dependent on personal assistants to move in the public environment. Teenagers transitioning into adulthood should aim to be as independent as possible, which would be easier if the public environment was more accessible. In addition, the participants sometimes exposed themselves to risks, instead of refraining from certain activities or movements. Persons using personal assistance daily did not perceive certain hinders as problems, as for example heavy doors, because they

always got help opening them. Fänge, Iwarsson and Persson (2002) call for systematic assessments of the public environment that are user oriented. Since functional limitations are personal and individual, what people report as accessible or not is based on their own personal functioning. Changing attitudes towards people with "divergent capacities" may increase accessibility, as accessibility is comprised of both physical, attitudinal and social factors (Fänge, Iwarsson and Persson, 2002).

Corazon et al. (2019) performed a study on health benefits of visiting green spaces for persons with mobility disabilities in Denmark. Through a purposive sampling approach, they found participants with mobility disabilities who took part in group interviews and individual interviews. Green spaces can be good for the health of persons with mobility disabilities (as also concluded by Stigsdotter, 2015), as they provide experiences of insideness and positive emotions. In contrast, experiences of outsideness and negative emotions of exclusion may be caused by lack of access to green spaces. On the reliance of other people for assistance, Corazon et al. (2019) note it may serve as either a constraint or as a facilitator to gain community experience. The interviewees in Corazon et al. (2019) search for physical closeness with green spaces, an immersion into nature, creating a "multisensory accessibility" or a feeling of closeness with nature. It is concluded that it is desirable to include the user group of green spaces when improving accessibility and positive experiences:

> "When working to increase the accessibility and positive experiences offered by green spaces, it is advisable to include the user group. Implementing evidence-based health design in the design of accessible green spaces could provide a design solution by which the healthful experiences of the spaces are promoted rather than compromised." (Corazon et al., 2019, p. 11)

Corazon et al. (2019) also note how the concept of "one size fits all" is incorrect in park accessibility for persons with disabilities, as this group of people consist of diverse individuals who carry their own opinions and experiences. In their study, Corazon et al. (2019) found a theme of insideness and outsideness. For some participants, having other people around in the greenspace was a positive experience and generated feelings of insideness. For other participants, seeing non-disabled people in greenspaces created feelings of outsideness, as the participants were reminded of things they could not do. Consequently, the feeling of being stared at prevented some respondents from visiting greenspaces (Corazon et al., 2019).

Axelsson (2014) research the participation in family activities, such as outdoor play, of children with PIMD through information from parents and personal assistants. A key factor for child participation was found to be the positive attitude of people around the child, such as personal assistants. Personal assistants function as facilitators for child participation, and the facilitation may be physical closeness, or including the children by explaining or offering them to influence the situation. Since the personal assistants act as facilitators, they also become enablers who provided strategies for how to increase participation of children with PIMD. Such strategies included engaging in the activities oneself and offering opportunities for the child to influence the activities. On the topic of participation is also Hammel et al. (2008) with their work on how

persons with disabilities define participation. Research on children in planning practices and politics has also been performed by Cele and van der Burgt (2015; 2016) and van der Burgt and Cele (2014).

The Stockholm Traffic and Public Transport Authority (2008) note that even though there are laws and policy documents in place, it is important to include the disability perspective early on in planning processes. If the accessibility perspective is included from the start, it becomes a natural part in the finished design. Also, adjustments to an already finished place are often more expensive and does not blend in as seamlessly in the surrounding environment (Fänge, Iwarsson and Persson, 2002; Stockholm Traffic and Public Transport Authority, 2008).

According to the Swedish Association of Local Authorities and Regions (2006), playgrounds designed for children with disabilities serves all children. As important places for children's development, playgrounds should be accessible and useable for all. To achieve accessible and useable playgrounds, The Swedish Association of Local Authorities and Regions (2005) describe possible alterations and additional play equipment. For example, an elevated sand box and a ramp (figures 3 and 4) are ways to improve accessibility and useability (Swedish Association of Local Authorities and Regions, 2006). In addition, the Stockholm Traffic and Property Management Department (2005) evaluated playgrounds in Stockholm and are in accordance with the National Board of Housing, Building and Planning (2014), who state that playgrounds should be useable by children and adults with limited mobility and limited orientational capacity. The Stockholm Traffic and Property Management Department (2005) conclude it is worth considering whether everything in a few playgrounds should be accessible for everyone, or rather a few things should be accessible for everyone in all playgrounds. They also note that sometimes it is easy to alter certain hinders, and when there are easy solutions, they should be implemented (Stockholm Traffic and Property Management Department, 2005).

Figures 3 and 4. Elevated sand box, "example of an elevated sand box with free space below so that a person sitting in a wheelchair easily can access it", and a gazebo with a ramp (Swedish Association of Local Authorities and Regions, 2006, p.82 and p. 33).

Prellwitz (2001; 2007) and Prellwitz and Tamm (1999) study accessibility to home, school and playground environments for children with limited mobility. For the playground environments, Prellwitz (2001; 2007) explored the attitudes to accessibility problems from two groups: those who create the playgrounds and those who use the playgrounds (i.e. the children with mobility disabilities). The results show that people creating playgrounds had insufficient knowledge of disabilities, and that their attitudes hindered adequate planning practices. The attitudes were for example that children with disabilities often have adults with them who could carry them on the playground (Prellwitz and Tamm, 1999). For the users of playgrounds, there were two key findings:

- The playground is not for me
- Assistance is a precondition for accessibility (Prellwitz, 2001)

Based on these findings, Prellwitz (2007), call for more research on disability and playgrounds. Legislation and research are focused on the physical access to playgrounds, but a playground solely focused on the physical access may in the worst case emphasize a child's disability, as the child may be unable to participate in play because of the lack of social inclusion. Social inclusion is instrumental, and more research is needed on how to enable play for children with disabilities. There is also need to broaden the scope of disability studies to include a wider spectrum of disabilities, not just wheelchair users (Prellwitz, 2007). In conclusion, there is a gap between research and planning practices which needs to be bridged for all persons to enjoy the positive health benefits of greenspaces (Corazon et al., 2019; Stigsdotter, 2015).

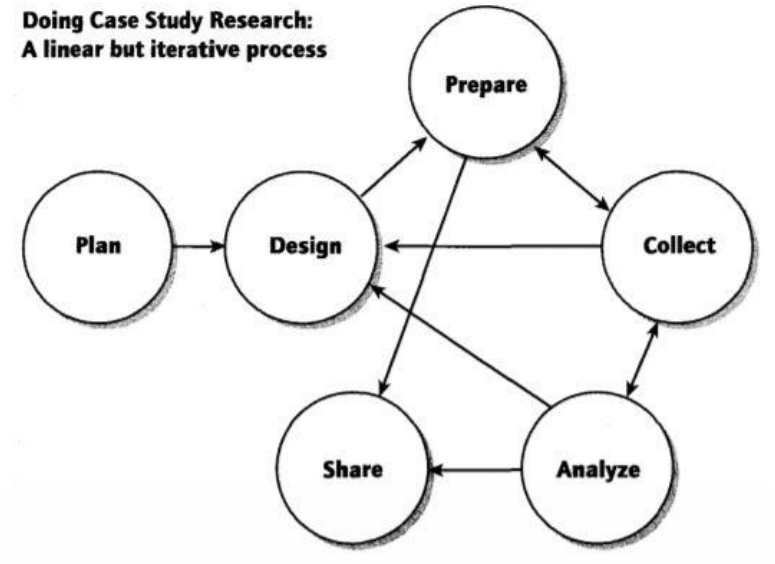
4. Methodology

In this chapter, I will present the methodology and methods used to perform this study. Starting with the research approach, the design of this study is discussed. Then, the study site of Långbroparken is presented with a short history and description of what policy documents as well as observations say. The methods are then discussed, including sampling, interviewees and the method of go along interviews. Last, ethical considerations and limitations are discussed.

4.1. Research approach

This qualitative case study uses an inductive research design as it explores lived experiences of children with profound and multiple disabilities, and it does not seek to test or disprove an existing theory (Bryman, 2012). In contrast to deductive theory, where data is generated based on theory, the inductive approach consists of letting the data generate the theory. However, both deductive and inductive designs may include fragments of one another. This study also uses an iterative strategy, as it involves going back and forth between data and theory (Bryman, 2012). The iterative process (figure 5) is central in case study research as case studies are suitable when performing explorative and contemporary research (Yin, 2009). For epistemology, this study is positioned within the interpretivist field. As a response to the positivist epistemology, which is concerned with using natural science methods to study reality, interpretivism seeks explanations and understandings of human behaviour. In detail, this study uses phenomenology, in which the researcher aims to grasp another person's point of view and how they make sense of the world around them. The ontological position of this study is constructionist, meaning human interactions create reality, in contrast to the quantitative view of reality as objective (Bryman, 2012).

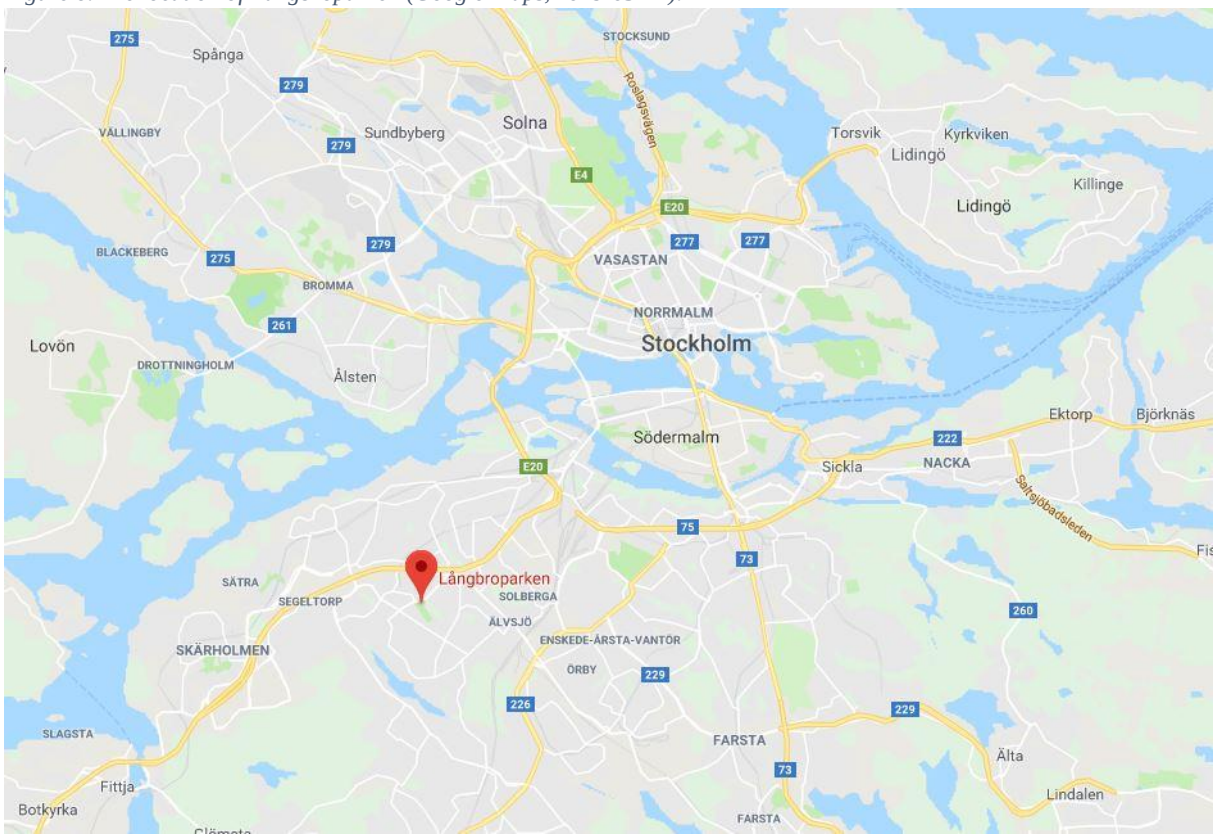
Figure 5. Case study research (Yin, 2009).



4.2. Study site

The case study site of this project is located in the southern part of Stockholm, Sweden (figure 6). It was chosen because of practical reason, as it is geographically located close to the school the interviewees attend and I used to work at. The school does not have a schoolyard and uses the park for many outdoor activities.

Figure 6. The location of Långbroparken (Google Maps, 2019-05-14).



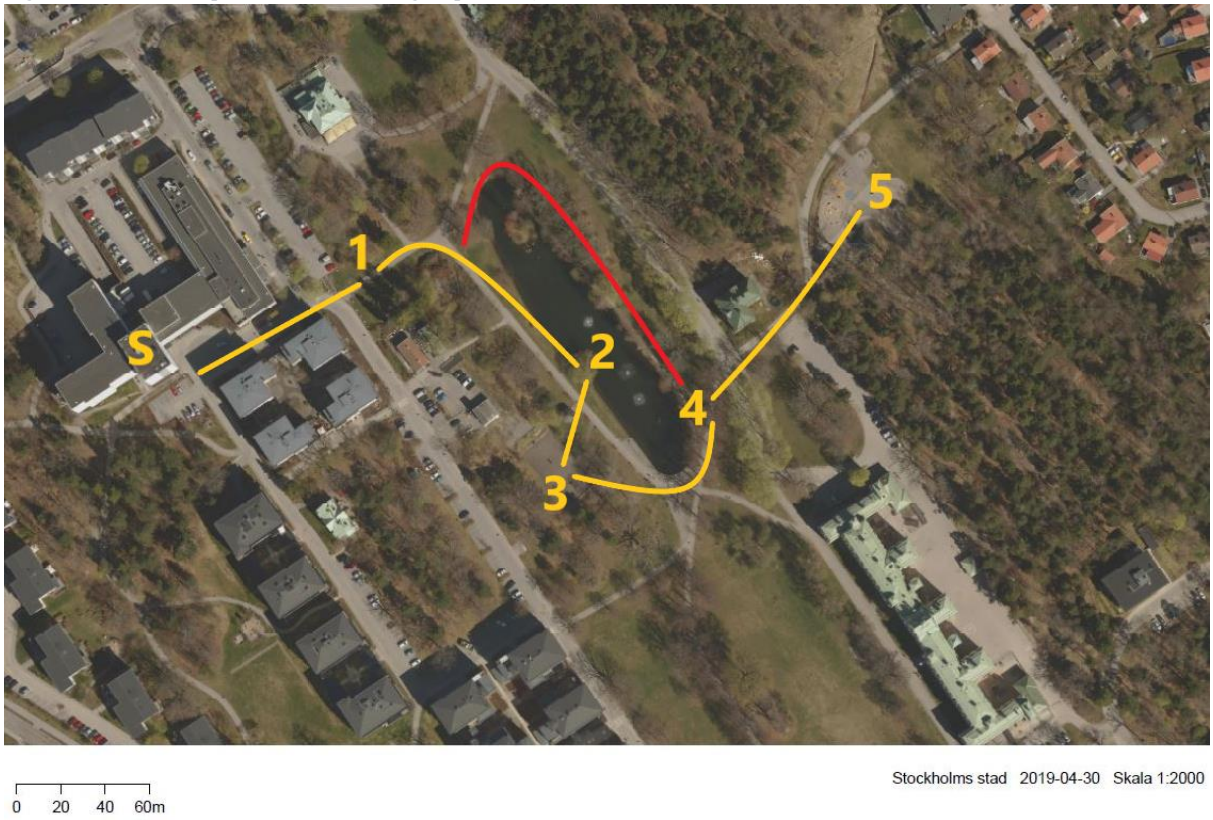
Långbroparken has a rich history that will briefly be presented. Situated in a natural glen, Långbroparken features a pond with seasonal fountains, walkways and bicycle paths, benches, as well as giant oak trees and flat rock formations. 13.1 hectares in size, Långbroparken was originally developed as a park for the Långbro mental hospital in the early 1900s, designed in British romantic style with German influences. The original design is still visible by the open lawns, avenues of oaks and groupings of trees. An old watercourse formed the basis for the oblong pond in the centre of the park. After the hospital closed in the 1980s, the former hospital buildings were rebuilt into housing and offices. New properties, primarily housing units, developed in the early 2000s are located close to the park, blurring its outer borders (Älvsjö District Administration, 2016, p. 130).

The places visited are presented in figure 7. The S represents the school, which was the starting point for all interviews. Places that were left out include a gazebo, an open lawn, a restaurant and a parking lot. The results would have been different if these places were included, but with

regards to not overwork the interviewees, a selection had to be made. The selection of what specific places to include in the go along interviews were decided based on the researcher's previous knowledge of the children's park use. It was deemed difficult to discuss places never visited by the children, which is why the selection of places aimed to include places the children had some opinion or experience of. The places will be presented with more detail as part of the results in chapter 5. The places are:

S. Starting point (school)
1. Entering the park / leaving the park
2. The pond
3. Basketball court
4. Trees
5. Playground

Figure 7. Routes and places visited in Långbroparken (Stockholms stad 2019-04-30).



In their analysis of Långbroparken, the district administration of Älvsjö determines Långbroparken has big ecological, cultural historical and social values. The ecological values include Långbroparken being part of an ecological corridor, as well as the old giant oaks. The cultural historical values are connected to the old hospital buildings and the well-maintained park environment. For social experiences, sitting in the sun, walking, having picnics, running and regarding Långbroparken as a green oasis are the central parts (Älvsjö District Administration, 2016). Social value is also found as the research participants in this study describe their use of Långbroparken, often arranged by their nearby school. As for safety, street lights are focused on the walkways and cycling paths, while the unplanned parts are denser and

darker. In describing accessibility, the analysis promotes the park is accessible as it has small differences in altitude and the walkways are of asphalt and are wide. Some of the paths consist of dense rock flour and there are many benches (Älvsjö District Administration, 2016). Entering the park is easy through wide asphalt walkways, and there is always the opportunity to use asphalt walkways, except for in the playground by some of the playing equipment. The district administration ends their analysis by setting a goal for Långbroparken, consisting of keeping its existing character. The strategy to achieve this goal consists of taking care of the parks vast ecological, cultural historical and social values. This is accomplished by improving the impression of the park by limiting car traffic in the northern part and replacing worn out benches. Further, the district administration notes that they need to take care of the park's connections to unplanned nature in the east, and that the southern parts atmosphere with buildings on the edge of the park is important to keep (Älvsjö District Administration, 2016, p. 130-132).

4.3. Methods

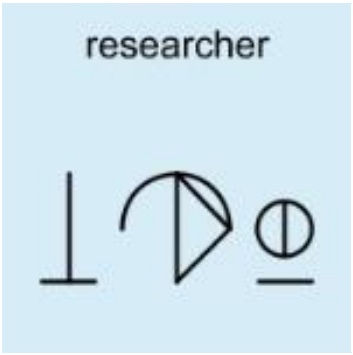
Sampling

Through a dialogue with school management I got permission to come and ask children if they wanted to be part of my study. The school management acted as a gatekeeper in the sense that I awaited their confirmation before visiting the school, as a gatekeeper holds the power to allow or decline access to informants (Bryman, 2012, p. 85). Before asking any potential research participant if they were interested, I visited the school for the first time in 1,5 years, when I stopped working there. The purpose of this pre-visit was twofold: first, I wanted to say hello and see who of the children remembered me or not; second, I started the sampling process. The sampling process, which was of a generic purposive nature, because the study aims to analyse experiences from a certain group of individuals (Bryman, 2012, p. 416-428), started by discussing with school staff who might be interested in participating in my study. Setting requirements to suit the research questions is also part of generic purposive sampling and was done through the criteria of the research participant having yes and no communication (Bryman, 2012, p. 416-428). This requirement was necessary to ensure I could interpret their yes and no signals correctly, and thereby understand if they consented to partake in the study. Researchers with more experience of children with PIMD might have been able to interview all children who attend the school, while I had to limit my sampling to children able to communicate yes and no out of fear of not understanding them correctly. I intentionally chose children who I felt comfortable interpreting and who could participate in go along interviews. More children could have been interviewed if the I had more time to prepare and learn more individual communications. After the yes/no selection, the sampling aimed for a variety in age and communication means, also part of a generic sampling strategy (Bryman, 2012, p. 416-428). The first visit was concluded by planning for future visits to ask children I wanted to interview. This was done through their teachers, who knew the children's schedules.

On my second visit I had one on one chats with the children. I explained the interview process to them with appropriate communication material (see figures 8, 9 and 10). As Cameron and Murphy (2006) note, when obtaining consent with persons with disabilities, it is crucial that the

researcher use different means of communication, not just speech. The children's assistants were present to make sure I did not misunderstand them. I chose to talk with the children one on one to avoid potential peer pressure. For one class, I explained my study and the interview process to all of them at the same time, to then sit down one on one to ask if they wanted to participate and give them a chance to ask questions. After going through consent forms with the children, the ones who wanted to participate in this study got information and consent forms sent home to their parents. In total, 14 children were asked, of whom two declined participation. Out of the 12 who said yes, two children did not get the consent form signed by their parents. The consent process will be further discussed in the ethics section.

Figures 8, 9 and 10. Example of a Bliss symbol meaning "researcher" (https://www.blissonline.se/chart), a picture-based communication illustrating "interview"(https://boardmakeronline.com/Login.aspx), and Swedish sign language meaning "ask" (https://www.ritadetecken.se/ebba) that were used to explain the interview situation.



Persons with profound intellectual and multiple disabilities, PIMD, share two key characteristics: profound intellectual disability and profound motor disability. The severity of the intellectual and motor disabilities varies and is explained through figure 11. The participants of this study are near the top right corner of figure 11, meaning their intellectual level is difficult to evaluate by standardised tests, and their neuromotor functions are heavily restricted. Because of these disabilities, they are dependent on personal assistance to complete everyday tasks (Nakken and Vlaskamp, 2007).

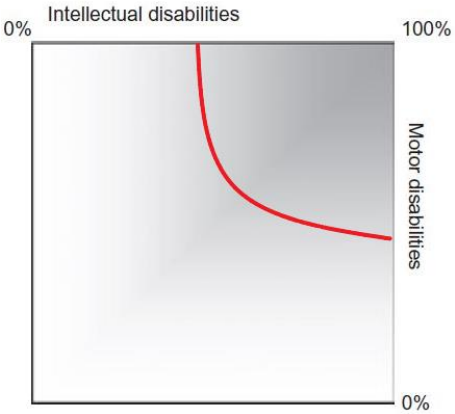


Figure 11. Schematic representation of individuals with profound motor and profound intellectual disabilities with respect to intellectual and motor disabilities (Nakken and Vlaskamp, 2007, modified by author). Participants in this study are in the top right corner.

According to Nakken and Vlaskamp, persons with PIMD should be described as detailed as possible to not exacerbate the perception of persons with PIMD as a homogenous group. In table 1, the participants of this study are presented as detailed as possible, without revealing

personal details that are not of importance for this study, in order to protect their identities (Nakken and Vlaskamp, 2007).

Table 1. Research participants.

Name	Age	Assistive device	Length of interview	Notable interview context	Time and date
Adam	14	Manual wheelchair	47 min	One out of the two elevators to the school broke down. Was unsure if we would make it in time but we did. Maintenance in the park with sometimes loud machines. Sunny. Excited to be interviewed.	8.58. 3 April 2019.
Ella	8	Walking chair/ manual wheelchair driven by assistant	51 min	Excited to be interviewed. Windy and cold.	10.20. 28 February 2019.
Hugo	10	Manual wheelchair	33 min	Sunny and windy. Excited to be interviewed.	14.16. 2 April 2019.
Liam	9	Manual wheelchair pushed by assistant/driven by himself	32 min	Curious and a bit tense. Sunny but windy.	12.56. 26 February 2019.
Lilly	15	Electric wheelchair driven by assistant	37 min	Happy and excited. Sunny and a little windy.	10.38. 26 February 2019.
Oliver	12	Manual wheelchair	28 min	Not too interested. Cold and windy.	13.24. 28 February 2019.
Olivia	12	Manual wheelchair	26 min	Sunny and a little chilly. Really happy to be interviewed, giggling.	10.28. 2 April 2019.
Oscar	13	Manual wheelchair driven by himself/assistant	56 min	Excited to be interviewed. Quite cold and windy.	10.32. 27 February 2019.
Vincent	15	Manual wheelchair	40 min	Maintenance in the park with sometimes loud machines. Sunny.	12.43. 3 April 2019.
William	11	Manual wheelchair pushed by assistant	42 min	Excited to get going. Sunny but windy.	10.37. 25 February 2019

In order to perform research with children with PIMD, it is important to learn their individual communication ways (Klotz, 2004; Cameron and Murphy, 2006; Cambridge and Forrester-Jones, 2003). In this study, I used both proxy research assistant (personal assistants) and augmentative and alternative communication (AAC). AAC comprises different ways of communication, such as gestures, symbols, sign language and eye tracking technology. In order to make use of the AAC, it is crucial to know the AAC of the research participant beforehand. It is also worth noting that a person often communicates through a combination of AAC, for example symbols and gestures (Cambridge and Forrester-Jones, 2003; Nind, 2008, p. 9-10).

Mietola et al. (2017) describe a case study with participants with PIMD, in particular persons who do not communicate via speech. They write about how important it is to learn to recognise participants individual signals on different physical states. Mietola et al. (2017) use what they

call “communication partners”, which is seen as the same as the personal assistants in this study, as communication partners are described as people who knew the research participants well. As persons with PIMD by definition are not able to speak orally, it is important to note both the content of their communication, but also the method of communication. Further, they note that the communication may display itself in “facial expressions, looks, touches, utterings and movements” (Mietola et al., 2017, p.271). They also note that even the people working closely with the persons with PIMD sometimes does not understand their communication. This demonstrates the complexity and scope of individual communication (Mietola et al., 2017). All children in this study use their individual communication. Several of them rely on some kind of communication material, and below are short descriptions of some of the communication material that has been used:

- Communication book (see figure 12)

With a communication book, the person using it points to a picture which either says something or has a referral to another page. If it refers to another page, the assistant helps turn the page, and the person using the communication book can continue talking. It works like a low tech tablet.

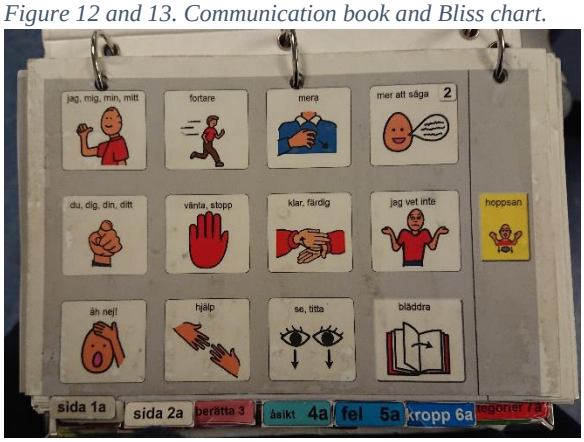
- Bliss chart (see figure 13)

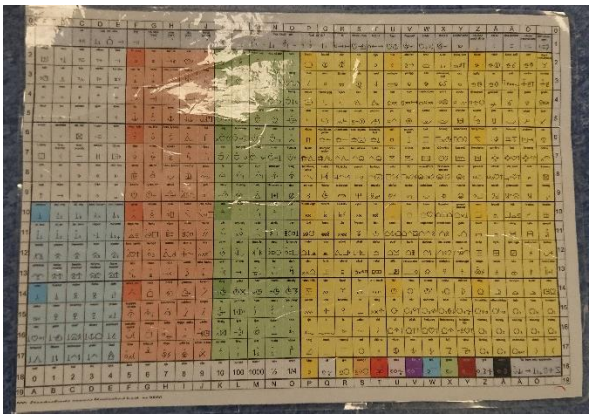
A bliss chart consists of bliss-characters organized in rows and columns. Persons are blue, verbs are red, adjectives are green, and objects are yellow. You can use a Bliss chart by pointing to symbols with your fingers or by looking at symbols with your eyes. A personal assistant may then help navigate to the right symbol by asking about rows and columns until they both match.

- Sign language

Sing language is spoken with the use of your hands. It includes both bigger gestures and more detailed finger positions. Some persons use it all the time, and some use it for certain words. When signing it is important to have contact with the person you’re signing with, so that you see if they respond to what you’re saying. Just like when talking orally, sign language is influenced by individual pronunciation and nuances. The persons interviewed in this study sometimes modify sign language to fit their motor skills. This means you have to learn their individual sign language to be able to communicate.

Figure 12 and 13. Communication book and Bliss chart.





Go-along interviews

According to Evans and Jones (2011), the go along interview (also known as walking interview) is an efficient method to use when exploring the correlation of what people say, and where they say it. For this study, it was deemed necessary to ask questions about the park while actually being in the park, to make sure the interviewees understood what I was asking about. It was a practical decision in this sense, but also suiting as the purpose of go along interviews is to examine the interviewees relationship with the environment. Being able to geographically locate research adds another dimension, as the interview site affects the data that is generated during an interview (Elwood and Martin, 2000). Go along interviews also include observations, which is why it is especially suiting when researching "multiple scales of spatial relations and meanings" (Elwood and Martin, 2000, p. 649). Further, interview locations allow researchers to make observations which may provide additional data (Elwood and Martin, 2000, p. 653).

De Leon and Cohen (2005) discuss probing and argue that the most valuable forms of probing are the ones where the researcher talks as little as possible to get the interviewee to answer questions (see also Kusenbach, 2003). Similar to go along interviews, walking probes also involve going to a specific place or location which you discuss. The purpose of a walking probe is to talk about the interviewees past and present opinions and experiences about the location you are at. According to de Leon and Cohen (2005) the interviewer should have a minimal influence on the interviewee. This was a challenge in my interviewing, as my interviewees needed prompting in form of "we are on our way into the park" and clear yes and no questions such as "does it feel good to be here?", yes (*waving my right hand*) or no? (*waving my left hand*). This may have had an impact on my results. Evans and Jones (2011, p. 852) used GPS recording while conducting their go-along interviews, while I chose to insert prompts in the recording. I would have had to say thing like "now we're by the pond" anyways to make it clear to the interviewees where we were. Regular go-along interviews are done on the move, walking while talking. The communication ways of the interviewees in this study made it hard to walk and talk at the same time. It is hard so speak sign language while walking and make sure the other person sees your hand movements. The communication book requires assistance and is very hard to use while on the move. As I was aware of the adjustments needed before the interview process started, I decided some locations where we would stop. GPS tracking would not have served a purpose and was therefore not used.

Go along interviews produce more place specific data than "regular" or sedentary interviews, and adds new layers to research (Anderson, 2004; Carpiano, 2009; Evans and Jones, 2011, p. 856-857). During go along interviews the participants are regarded as experts, guiding the researcher (Kinney, 2017). However, there is little research on the role of place in shaping data when performing walking interviews. This type of spatialised data in small scale studies generate questions and call for further research. A disadvantage of the go along interview is the difficulty to interview on the move and outside (Evans and Jones, 2011). I experienced this during my interviews as well. For some of the interviews, I could not ask questions while walking, because the interviewees needed help answering them. I would therefore wait with my questions until we stopped. I would mostly sit on my knees or sometimes on a bench so that I was face to face with the interviewees. Another issue I experienced was the windy weather that

was present during a few interviews. It made the recordings a bit hard to listen to, and almost caught the sheet of paper with options I was showing interviewees in the end of the interviews. It was also evident that some children got distracted by dogs or children walking past us. Park maintenance were operating during two interviews, and the children got interested in what the people in orange clothes were doing. Their tools and machines were distracting, but such external factors cannot be reasons for not conducting go along interviews (Carpiano, 2009). In this sense it would have been more focused to stay inside, but then again, the children may have had a hard time to connect my questions with specific places without being there in person.

Interview process

The interviews were performed in two rounds. The first round of interviews was conducted during the sports break (late February), meaning the children did not have any school, but extracurricular activities. The second round of interviews (early April) were conducted during school hours. The teachers decided when it would fit each research participants schedule to do the interview and we made appointments. Shortly before the interviews, I would go see the child I had an appointment with to check in, I would ask if they remembered what we were doing and if they still wanted to do it.

Since all children who participated in the study use their own personal communication ways, I had to be flexible in my interviewing style. Before the interviews I would prepare my material so that it would suit the interviewee's communication. The age difference also played a part in preparations, since an 8-year-old and a 15-year-old needed different interviewing approaches. It was always the goal to use as much of the interviewee's own communication material as possible. These could consist of sign language, pictures, bliss symbols or speech. Pictures and bliss symbols were prepared using computer programs (Boardmaker and Blissonline). Adjustments were made for the children who have a hard time answering open questions, where yes or no questions were used instead. For the open questions, alternatives were prepared. A semi-structured interview guide was used to ensure certain information was gathered, while still keeping a flexible attitude towards unforeseen topics of discussion (Bryman, 2012).

The issue on how to document the interviews arose from the difficulty on how to be able to communicate clearly while using some kind of recording device. At first, I was thinking about filming the interviews, but then I realised I would be unable to use my hands, which I could need for signing or other communication purposes. According to Evans and Jones (2011), filming while performing go-along interviews is quite hard since you're already focusing on walking and talking at the same time. However, it would have been interesting to have filmed material since some of the children communicate via facial expressions or body language. When recording the interviews, I used a recording device that I held in my hand. Many interviewees were interested in the recording device. When starting the interviews, the recording device was introduced, and the interviewees could watch the screen light up and numbers changing. I would then hold the recorder in my hand during the interviews. Several of the children asked about the recording device during the interviews, to make sure it was still recording, and some children didn't mention it. The children who wanted to, got to listen to part of our conversation on the voice recorder to demonstrate what this little machine was actually doing. I found it

interesting how some children were really concerned with me possibly holding the recorder too far away from them, they were concerned it wouldn't record everything they said. Some of them wanted to hold the recorder by themselves or put it in their laps, which unfortunately I could not permit since the recorder was borrowed. They were truly eager to be heard and did not want to risk not being recorded. Through the use of the voice recorder I was able to produce so called spatial transcripts, meaning connecting the comments to places (Evans and Jones, 2011). The consent for voice recording was obtained through the parent's consent forms that were sent home after the children said they wanted to participate in this study. The parent's consent forms consisted of information about the study as well as contact information to the researcher and supervisor.

Kusenbach (2003, p. 464) performed go-along interviews with several persons at a time. In theory, this would have been possible, but the data collection could have suffered from it. For starters, the children could have been influenced by each other and not given entirely their own opinions, or just agreed with each other. It could also have sparked discussions in a good way. For me, I would have had a hard time focusing on two children at the same time since some of their communication is so subtle. It might have been possible but I'm afraid I would have missed a lot of the silent signals that the interviewees demonstrate.

Data analysis

As the study is of a qualitative and explorative nature, a thematic analysis of the data was used (Bryman, 2012, p. 578-581). Following the method of Corazon et al. (2019), the transcribed interviews were read repeatedly, and note taking and analysis was ongoing. Interpretative phenomenological analysis (IPA) was applied as a data analysis method. IPA is focused on exploring experiences and is positioned as a qualitative research approach. In addition, IPA aims to understand participants accounts of their experiences. As an explorative approach, it uses flexible and inductive strategies. From line by line, close-up analysis, to identifying emerging themes, and possibly developing theories, IPA is very similar to thematic analysis (Bryman, 2012, p.578-581; Smith, Flowers and Larkin, 2009).

4.4. Ethical considerations and limitations

Mietola et al. (2017) discuss research ethics with regards to people with PIMD. Their results demonstrate persons with PIMD are being excluded from disability research, as such research assume participants have certain communication skills that persons with PIMD often lack. They argue that when performing research with marginalised groups of people, it is important to consider the implications of the research, as well as what understanding is produced and promoted about the marginalised people (Mietola et al., 2017). Boxall and Ralph (2010) conclude ethical considerations also need to concern the positive effects of participating in research for persons with learning disabilities, as not to be discouraging of innovative research practices. Similarly, research on disability reproduces the understanding of disability, which is why it is important to carefully consider the objectives and implications of the research (Barton, 2005).

The position of the researcher as an overt full member (Bryman, 2012, p. 441) facilitated the data gathering for this study. As an overt full member, I had access to a closed setting, the school the children attend, while also disclosing my identity as a researcher. I used to have the role as school staff, and that some of the children might consider me to be their friend, teacher, assistant or not recognize me at all. These different roles may have had implications on the sampling and interview processes (Bryman, 2012, p. 435-445). For example, one child was eager to be interviewed, and I do not know if she wanted to spend time with me or if she wanted to be interviewed about her opinions of the park. I knew most of the children whom I asked if they wanted to be part of the study, which may be seen as risk for over-identification (Bryman, 2012, p. 435-445). I realise I am in a unique position to conduct this kind of study, as my previous experience allows me to be an active participant and interview the children on their own terms (Bryman, 2012, p. 435-445).

The process of interviewing children often has been considered difficult and has therefore been avoided. But in order to gain information on children's perspectives it is justified to involved children in research practices. Since social norms put children below adults in hierarchical structures, children's views contrast the perspectives from the adult world (Källström Cater, 2015; Øvreeide, 2010). Conversations are living processes and are influenced of our needs, feelings and past experiences. Øvreeide (2010) promotes a mutual understanding and cocreation process when talking to children. To do this it's necessary to find and respect the child's perspectives and experiences, which is what this study aims to do. The conversations should be confirming, supportive and create context for the child, as well as contribute to the child's self-esteem (Øvreeide, 2010). I do believe my conversations were confirming, supportive and created context, as I prepared the interviewees for the interview situation and gave opportunities to ask questions. The preparation before the interview consisted of conveying the interest in the children's experiences, as well as explaining what would happen to the information they shared. The self-esteem is hard to know if I had any impact on, but some of the children were happy and proud to be interviewed and feel that someone was listening and interested in their thoughts and opinions. However, some of the children were indifferent and thought the walk in the park was more fun than telling me about their opinions and experiences.

When obtaining consent to research participation for persons with learning and communication disabilities, Cameron and Murphy (2006) provide the following key points:

1. People with learning disabilities need more time to make decisions about research
2. Researchers need to be good at communicating and getting to know people
3. Researchers need to use different ways to communicate – not just speech

(Cameron and Murphy, 2006, p. 113)

For the first point, the research participants were given time and opportunity to decide on partaking in the study. During the interviews, I was attentive to any indications of the child not wanting to answer or continue. The second and third points mentioned above regard the researcher's role. The results of this study might have been different without my already established relationships with the children. For the third point, on communication ways, I

adjusted my own communication and the interview material, as well as I could, to suit the individual child. As some children needed options to choose from, I somewhat controlled their responses, but I also provided the option of choosing "something else" that was not one of my suggestions. Several children rely on options in their daily lives, and not providing options would have made the interview situation difficult. Since there are ethical concerns that persons with learning or communication disabilities are either excluded from research, or participate without consent, Cameron and Murphy (2006, p. 115) note what may be considered as positive and negative indicators of consent (table 2).

Table 2. Indicators for consent (Cameron and Murphy, 2006, p. 115).

Positive indicators for giving consent	*Doubtful indicators for giving consent*
High level of engagement (eye contact, body language)	Low level of engagement (lack of eye contact, indifference)
Relevant elaboration (verbal comments indicating will to participate)	Concern that the response was compliant (agreeing without understanding)
Positive nonverbal responses (nodding)	Ambivalent nonverbal responses (negative facial expressions)

In this study, two of the fourteen children who were asked if they wanted to participate said no. They did this through their own individual communication. One of them shook their head no and used their bliss chart to say they did not want to participate. The other child used their voice to drown the sound of my voice and put their head down in front of them. These were clear indicators of not wanting to participate in the study. Cameron and Murphy (2006) highlight the importance of ongoing consent, and the reminding the participants that they could stop the interview process at any time. They also stress the importance of taking nonverbal responses such as tiredness or uneasiness into account. Cameron and Murphy (2006) note that the relationship between the researcher and the participant is essential in performing research with persons with learning disabilities. They conclude that this may be facilitated by appointing a researcher who is able to establish rapport and social understanding with the research participants (Cameron and Murphy, 2006).

As mentioned, the time scope for this study compelled certain limitations. The time period of January to May meant the weather was sometimes cold. A different time period, and therefore different weather conditions, could possibly have given other results. With a longer time period, the study could have been further elaborated and detailed, through more participants, multiple interviews or several study sites. The sampling method may have excluded some children who could have given interesting answers to my questions. The method of go along interviews may have been distracting for some research participants as distractions appeared during the interviews. Distractions such as dogs or maintenance work in the park made it hard to stay focused for many children, but also for me. When preparing communication material for the interviews, I relied on information from people working closely with the research participants as well as my own experience.

5. Results

The results are structured after places in the park. This captures the essence of the go along interview as a method and reveals place specific opinions and experiences. Before exploring the park and each stop, a brief overview of the interview situation is provided, as well as an introduction to the routes and stops along with a map.

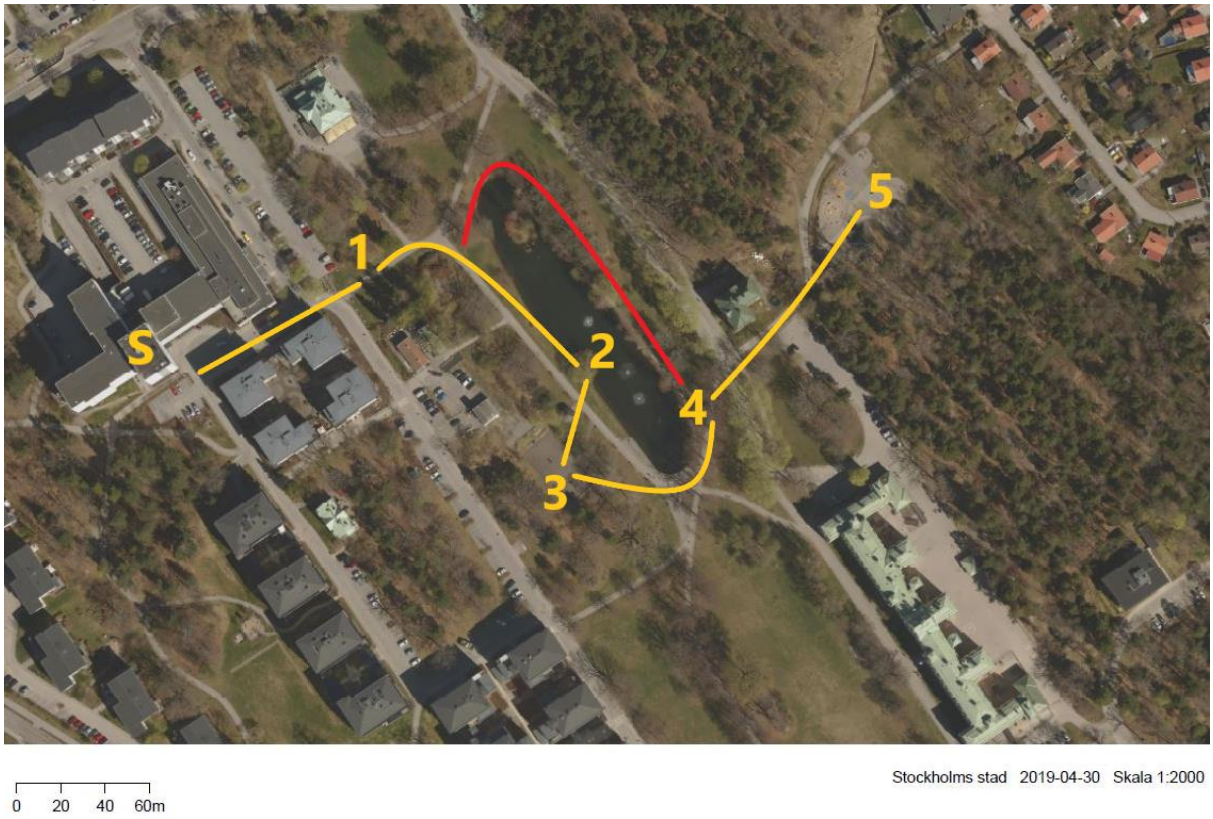
The ways of communicating amongst the interviewees are both diverse and personal. All communication was adjusted to suit each research participants individual needs. In some cases, this meant I had to provide options from which the interviewee could choose. This provided the opportunity for the children to make up their own alternatives if none of mine suited them, but it may also have influenced their responses. The personal assistants played important roles in clarifying questions and responses and depending on their relationship with the child also asking follow-up questions with something in mind they wanted the child to recall. In most interviews, the assistants were helpful, but in some cases, they would put words in the child's mouth. This demonstrated itself by the assistant saying something like "oh but you do like the pond!" after I had just asked the child if they like the pond. This is a problem in all communication situations and not just in an interview situation, and something that personal assistants are supposed to be careful about. I can imagine assistants might have felt pressure that the child they were working with had to respond, and that their intentions were good. However, this is unfortunate since it would have manipulated the results. There were also cases where the assistant did not know the child very well, which led to a more open approach by the assistant. At the same time, the assistant could not help with recalling previous memories as they had not been working with the child for that long. Some answers could not be developed as neither me nor the assistant knew what the child was thinking about and wanted to communicate. The communication with these children is based on asking the right questions, and that is hard without previous information. Because of the individual communication ways, and the augmentative and alternative communication, it was generally hard to talk on the move. I knew by experience it can be hard to get a connection and communicate via communication book or sign language when you are not facing each other, which is why I beforehand decided on certain places to stop at. Also, the interviewees all use facial expressions, and I did not want to risk missing them. When parts of the interviews are presented in the results, I have translated the interviewees original communication into text, and the children's individual communication is stated in footnotes the first time they appear.

How people use and perceive greenspaces such as parks is individual, and in this section, the subjective accounts of the interviewees will be presented. Opinions and experiences of Långbroparken will be presented by places shown in figure 14:

S. Starting point (school)
1. Entering the park / leaving the park
2. The pond
3. Basketball court

4. Trees
5. Playground

Figure 14. Map over Långbroparken with the locations for conversations represented by numbers. The starting point is marked by the letter S.



All interviews started at the school, represented by (S) in figure 14. At the starting location, I would explain that I was holding a voice recorder and repeat where we were going and what we were doing. There was room to ask questions and if all was good we would start moving towards stop number (1), entering the park. The yellow route was taken by all respondents from start at the school (S), entering the park (1), the pond (2), the basketball court (3), the trees (4), and the playground (5). We then made our way to stop (6), leaving the park, represented by number (1) in figure 14, for concluding questions. Two interviewees, Adam and Hugo had the energy and the interest, chose to go along the route marked red, on the other side of the pond. Otherwise, we would follow the yellow route backwards (with the exception of not going up to the basketball court) to get to spot (1). At each spot marked on the map, we would discuss the interviewees opinions and experiences. The last stop we made in the park was always at number (1), to achieve a clear start and stop for the children. By connecting the interview situation to a certain place and explaining “next time we get here we are done”, many children relaxed and seemed to understand more clearly that until we get back to this point, the interview will be ongoing.

5.1. Entering the park

Figure 15. Stop 1: entering the park.

The walkway used to enter the park is represented by number (1) in figure 15. We stopped by the bench visible in the picture. Sometimes I sat down on a bench by the walkway, mostly to get on the same height as the interviewee. The overall impressions of this place were that it was good. Most children were thinking of being interviewed and were excited about that. The anticipation of what was going to happen was clear with all interviewees. Some of them also commented on the weather. It was like they became aware that we were outside and tried to take it all in. The actual spot we were in did not seem to recall any special memories, experiences or opinions. The excitement of being interviewed, and reflections of the bench, were captured by Hugo as we entered the park:

> Hugo[1]: It feels good to be here, I've been here before. It's exciting to be interviewed, it's my first time being interviewed. It feels really fun and exciting. This bench is important because people can sit and rest on it. I never do, but you're doing it right now.

Since he already sits in a wheelchair, it does not make sense for him to sit on the bench. He was able to see the bigger picture that I, as a non-wheelchair user, would like to sit down and rest sometimes. Hugo was considerate and the social interaction amongst us seemed to be more interesting to him than the actual geographical place of entering the park. The original thought was to have this spot as a test, a way of preparing the interviewees for the rest of the stops. I tested what interview style worked best and tried to scan the energy of the interviewee. If they had a slow day, I would ease off, and if they were energised, I would ask more questions. Most of the participants were excited to be interviewed, and some of them also remarked that they

[1] Hugo's communication: yes: voice + nods, no: voice + shakes head, other: paper with letters.

had never been interviewed before, adding they were curious to see what it would be like. This demonstrates how little children with profound intellectual and multiple disabilities are involved in research in general.

For some participants, it was quite hard to stay focused on the interview when out in the park. Some children simply could not stay focused very long, and some children were distracted by things happening in the park. During two interviews, maintenance was being done in the park, which resulted in noisy machines interrupting our conversations sometimes. Groups of children passing by were also found distracting for some interviewees. While interviewing in the park, anything could happen. The external things that happened were not planned and sometimes we had to adjust a little bit. With Ella, we were playing that her walking chair was a dog, and when a real dog appeared, she did not care about anything but the dog. This is only human nature, and it pleased me to see the children were not behaving in a way they thought I wanted them to, but they were truly being themselves. It also seems that some interviewees were eager to rush to the next stop. Signals for this was for example rolling their wheelchair away or interrupting my questions. Some children would ask where we were going next, with an excited look. I am also wondering if some children maybe said that they were done talking as an excuse to get to go to the next stop. I got the feeling that some children might have been more interested in knowing what was next, than to talk about where we actually were at that moment. When performing the interviews, we mostly used the walkways made of asphalt to move around in the park. They are mostly flat, but there are some small slopes, and one of the slopes is right after entering the park (between point 1 and 2 on the map). The slopes were much appreciated by some of the children. Oscar, who likes to operate his wheelchair by himself, really enjoyed the slopes and went really fast down the inclines. Going up the slope, his assistant pushed the wheelchair. Ella, running in her walking chair, used the walkway to run as fast as she could down a small slope (so that she got some extra speed). The walkways clearly serve an important purpose in providing a flat surface to go with wheelchairs but are not fun by themselves. The walkways were fun when there were slopes, flat walkways were apparently boring.

5.2. Pond

The pond (figure 16) is of an oblong shape and becomes a natural focus point in the park. Right by the pond is a path of compressed rock flour, marked red in figure 14. The pond has three fountains which were not operating during the interviews.

Figure 16. Stop 2: the pond.

All interviewees like the pond except William, who says it's bad and ugly. I don't know why he thinks it's bad and ugly, because I did not ask him to elaborate. William was struggling to communicate his responses and I did not want to push him too much early in the interview. Even though we do not know what William bases his responses on, he does provide a contrast to the other interviewees' opinions of the pond. Everyone but William said the pond was good, fun and nice. Several children reference summer and swimming when by the pond, associating the pond with previous experiences. Although subjective experiences, they seem to be thinking of similar activities. Some of them reflect upon the cold weather, suggesting that they might have given different comments on the pond if interviewed during another season. When interviewing Oscar, there was still ice on the pond which he reflected on:

> Oscar[2]: No water.
> Lena: No water? That's right there's ice right now.
> Oscar: Melting…
> Lena: Exactly, and then what happens, when the ice melts?
> Oscar: The water is not nice.
> Lena: No, I'd guess it's pretty cold.
> Oscar: Lena you don't want to swim either.
> Lena: No I don't actually.
> Oscar: The whole body is freezing.
> Lena: Yes, the whole body is freezing, it would be way too cold!

Oscar would probably not have mentioned ice if it was not there on the pond, so seasonal changes seem to have implications for the results. Again, the social interactions are present as

[2] Oscar's communication: yes: voice + nods, no: voice + shakes head, other: voice, sign language, communication book.

Oscar resonates I would not want to swim in the ice-cold water. While reflecting on the pond, Oscar turns his attention to people and human interaction with the park. Hugo, on the other hand, focused on the birds (mallards) by the pond and while giggling said the following:

> Hugo: We're right by the pond and two birds are cuddling, hihi. There are fountains. It's cosy to be here. The birds make it cosy.

Hugo was delighted by the mallards, and it seemed he felt a connection with the animals. This is seen as an encounter with "wild nature", or even "wildlife" in the park – serving as greenspace inhabited by animals. This encounter may be regarded as Hugo connecting with nature, or even immersing himself into nature.

The fountains in the pond (figure 17) were turned off during all interviews. If they would have been turned on, I think the sound and sight of them would have captured the attention of my interviewees. They would have been able to both hear and see the fountains, and perhaps even feel some splashes of water. I think the children would have commented on them more if the fountains were operating, but some commented on them even if they were turned off.

Figure 17. The fountains.

When Oscar was telling me about the pond, his assistant played an important role. The assistant has been working with Oscar for years and they know each other very well. This enabled the assistant to help me understand nuances and to object if I got something wrong. With Oscar, I thought I understood him correctly, but then the assistant stepped in and explained he has a habit of saying "dislike" before communicating his actual answer. Even though I knew Oscar from before, and his communication ways, I had not picked up on this habit. The assistants being present during the interviews seems to have been a good choice. For example, when arriving at the pond with Oscar, he was going to tell me what he thought of the pond:

> Lena: Can you tell me how you feel? When you're by the pond?
> Oscar: *points to angry*
> Lena: Angry?
> Oscar: Angry like a tiger! *points to dislike*

Figure 18. "Dislike" as shown in Oscar's communication book (from https://boardmakeronline.com/Activity/23451103, accessed 2019-05-22)

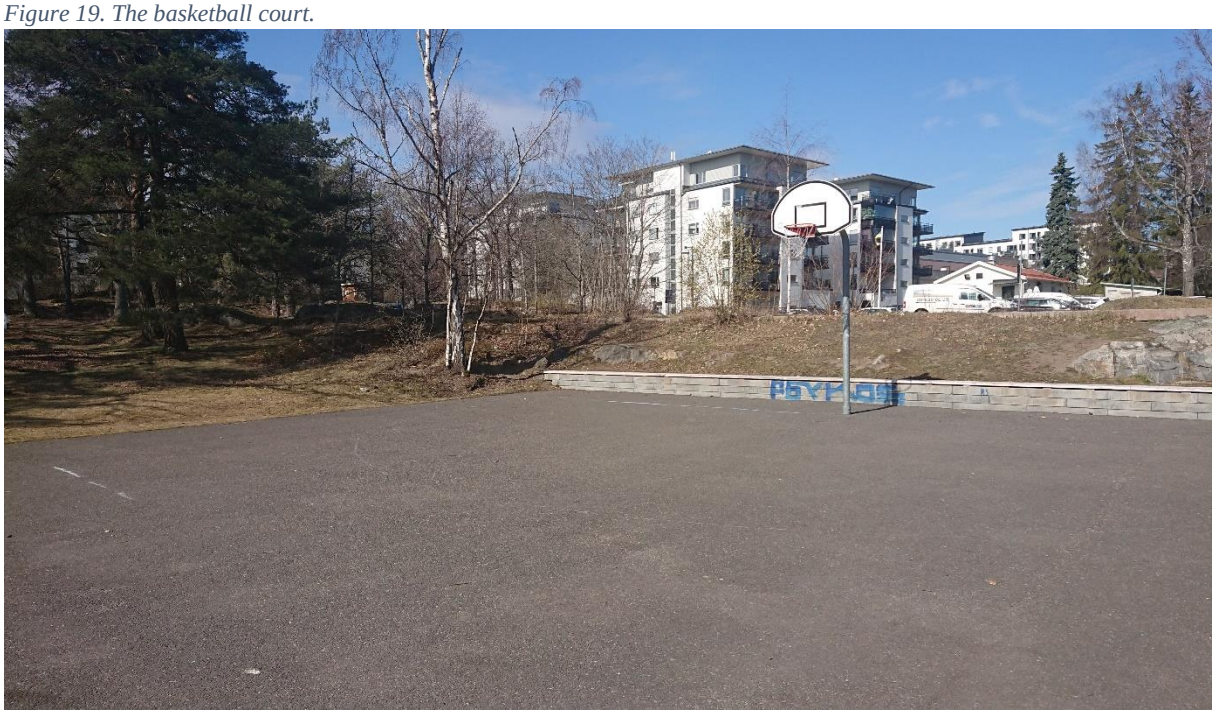
Lena: Dislike?
Oscar: Signs like this *signing dislike*
Lena: Do you feel angry when by the pond?
Oscar: Angry like a tiger! *points to tired, angry, dislike, fun*
Lena: Ok, so if you get to pick one of these?
Oscar: Do not like.
Lena: Ok, can you point to that one as well?
Oscar: Where is fun?
Lena: So right now, you're saying both fun and dislike. Do you want to use both words?
Oscar: Yes!
Lena: Ok.
Assistant: Can I say something about this page of the communication book?
Oscar: Yes.
Assistant: You always point to dislike, before you point to your answer, because you think the picture looks funny.
Lena: Oh, is that right Oscar?
Oscar: Yes.
Lena: Ok, so does that mean you think it's fun to be by the pond? Is that correct?
Oscar: Yes. Hahaha! Fun! Category page.
Assistant: Did you want to say something more about the pond?
Oscar: No.
Lena: Alright, let's move on to the basketball court.

If the assistant would not have been present, I would have thought Oscar disliked the pond, when really, he was telling me he thought the pond was fun. These individual habits and ways are what makes it hard to retell the interviews in text form. By Oscar's facial expression and body language, and sign language for that matter, he was coming off as convincing. Also, I had no reason to doubt his answer of disliking the pond. It is also hard to know if he wanted to tell me the pond was fun, or if he wanted to tell me he disliked it. After all, these interviews are based on subjective accounts and who am I to say I think Oscar is tricking me. However, when Oscar asked about the lunch, I knew that was a signal of laziness on his part, and that he could tell me more about his feelings of the pond. It is a fine balance of pushing and letting go, but since it is a habit of his to ask about lunch or the time to get out of school work, I kept asking.

5.3. Basketball court

The basketball court (figure 19) is an asphalt surface with a basketball hoop on each side. The school the interviewees attend often arrange activities on the basketball court, such as giant football or wheelchair dancing. The basketball court may not look like much, but according to the children, it's a great part of the park.

Figure 19. The basketball court.



The basketball court was loved by all but one participant, who stated he had not been there before. The children highlight two categories of activities that they usually do on the basketball court: wheelchair dancing and sports. In this context, the sports category includes basketball, giant football, taking walks and other games. Giant football is played with a huge, soft ball, that the children can kick or push with whatever body part they want. If the child is unable to move their body the person driving the wheelchair can also gently push the wheelchair so that it pushes the ball.

> Olivia[3]: This place makes me think of sports. This is a good place. It makes me happy to be here. I'm thinking of wheelchair dancing and that makes me happy.

Wheelchair dancing is a favourite for many of the children. It consists of special music with associated choreography, suitable for wheelchair users. Each song has its special choreography, and since most of the children have danced wheelchair dancing several times they recognise the intro of each song and what dance moves they are supposed to do. The basketball court serves as an open, flat surface where many people can dance together.

> Hugo: It's fun to be here! I go wheelchair dancing here and that's really fun! BIG thumbs up!

> Vincent[4]: I like the basketball court. I like the colours of the balls. I've been wheelchair dancing here before. I also like the sunshine here.

[3] Olivia's communication: yes: voice, no: closes eyes, other: Bliss.
[4] Vincent's communication: voice.

Associating the basketball court to fun activities seems to be a trend for the participants of this study. However, the children do not often play basketball on the basketball court but use the space for other activities. Adam makes a remark that the basket hoops are high up, which leads to the question if it would be possible to add lower basket hoops. Basket hoops on a lower level would be accessible to persons using wheelchairs and children who cannot throw that high. This would be an easy adjustment and increase the useability of the basketball court.

5.4. Trees

Figure 20. Stop 4: the trees in February and in late May.

The trees (figure 20) are old, giant oaks placed along an asphalt walkway leading to a pedestrian crossing onwards to the playground. This spot may be the least used of the ones included in this study, which may be an explanation for why they do not spark any feelings or opinions with Hugo:

> Hugo: I have no opinion about this place. I've passed it before.

However, his fellow research participants did have different opinions of the trees. Most of them liked the trees. Adam remarks he has been walking past the trees in his walking chair (see figure 21). The walking chair helps the user support their body weight and keep their balance, while allowing the user to use their legs to move forward. Adam describes how he walks around the pond, past the trees, in his walking chair:

> Adam[5]: This is a good place. I take walks here in my walking chair. We walk around the pond in our walking chairs.

[5] Adam's communication: yes: mouth shaped like an "O", no: tilts head forward, other: paper with letters.

Figure 21. A walking chair.

Liam was on the fence about the trees, or maybe tricking me. Liam was one of the children in a rush to keep moving and getting to the next stop. Perhaps therefore he responded quickly, saying:

> Liam[6]: I think the trees are ugly. It feels good and fun to be here.

Sometimes it seems that the children did not know what they should answer. Maybe Liam said the trees were ugly because he thinks it's a little bit funny to say that things are ugly and contradict the norm. He then says it feels good and fun to be there. My understanding of the situation is that Liam was a little bit cheeky and said the trees are ugly to get a reaction from me, but it could also be that this was his actual opinion. Perhaps he told me it felt good and fun because it is what he thought I wanted to hear. These ambiguous nuances are important parts of the results as they capture the complexity in performing go along interviews with children with PIMD.

During Ella's interview it was cold and windy outside, and she struggled to communicate her answers. She was annoyed that she could not keep her mittens on while using her communication book, as she would accidentally point to more than one picture, making her frustrated. Me and the assistant therefore tried to see where Ella was looking and keep asking until we got the right picture. It was clear Ella was thinking of something specific she wanted to tell me, but it took us a while to figure it out. The length of the conversation by the trees was around five minutes, during which she communicated the following:

> Ella[7]: I don't think this place is very nice. It looks old. If cars would drive here, they could crash into the trees.

Because we spent so much time figuring out what Ella wanted to say about the trees, it was not suitable to keep asking questions. Ella was content with her answer, and even though I would have liked to keep asking and unwinding why she thought of cars crashing it was not the right time to do so. Perhaps Ella thought of the nearby road or the fact that she rode in a car to go to school, or maybe she had been playing with cars – there are many possibilities for her response.

[6] Liam's communication: yes and no: voice, other: voice, communication book, sign language.
[7] Ella's communication: yes: nods head, no: shakes head, other: voice, communication book, sign language.

In some interviews, the child would tell me something and their personal assistant would object. The interviewee would for example claim that they had been walking around the pond in their assistive device (walking chair) and the assistant would contest that claim. It is possible that the interviewee had in fact walked around the pond, without the assistant knowing it (maybe they were not working that day, or maybe they were not informed of the activity). It is also possible that the child had not been walking around the pond and the assistant is right. The question I'm posing here is: does it matter whether it is true or not? This study is about the subjective opinions and experiences of children, and if they say that they have been walking around the park, I see that as my result. If it is true or not does not matter, because I am interested in what the child says has happened.

5.5. Playground

The playground is represented by number 5 in figure 14. It consists of swings, a sand box, monkey bars, slides, rocking horses, a see-saw and a little forest. The playground is used by the children as a place of leisure, but also of learning about for example social interactions.

The children are involved in constant social interactions. During the interviews, and most parts of their daily lives, they rely on their assistants to communicate and perform tasks. In many cases, this close working relationship develop into friendships, and a mutual liking of one another. Some children seem to be best friends with their assistants. In the interview with Adam, his assistant tilted the wheelchair to go on the back wheels only when we entered the playground, making Adam squeal of happiness. The assistant was probably doing this to not get stuck with the front wheels in the loose surface material. Once we had talked about the playground for a while, I thought I'd pose a final question as Adam seemed to have the energy and the communicative capabilities to answer a more open question. Please note that Adam communicated the following through spelling out each word by pointing to letters on a piece of paper. It takes patience and energy to do so, and he had to pause sometimes, which indicates he really wanted me to know the following:

> Lena: Is there something else you would like to tell me about the playground? Something I just have to know?
> Adam: The sand box, dig holes. Haha! When my assistant…*pause*
> Lena: Oh you look so happy right now, I'm very curious!
> Adam: When my assistant has to work really hard! Haha!
> Lena: When you're digging holes?
> Assistant: It's hard work, digging holes, you get sweaty! *Adam looks like he wants to dig holes now* We can't do it now, we don't have a shovel.
> Adam: Too bad.
> Lena: But what do you do, when your assistant is sweating and working hard? Do you help?
> Adam: I shout: "work harder"! hahahahaha.
> (…)
> Lena: Is that why the sand box is so good? Because you play and joke around here?

Adam: Yes.
Assistant: You can build big sand castles and ruin them, when I have been struggling for a long time, Adam you run them over or smash them with your feet!
Adam: Hahahah.
Lena: And what does your assistant say when you ruin the sand castles?
Adam: *super happy* He gets really angry! Hahahaha *laughs hysterically* *looks at his assistants' hand*
Assistant: I bite my fist because I get so angry.
Adam: *laughs hysterically*
Lena: Is it fun when your assistant gets angry?
Adam: yes!
Lena: But it's only pretend, right?
Adam: Yeah.

The relationship between Adam and his personal assistant is flexible, as they are able to shift roles and power dynamics. Adam is in charge and teases his assistant, who seemed to have as much fun as Adam. Like Adam, Olivia also enjoys the sand box. For her, it is not so much the social interaction that does it but getting out of her wheelchair and sitting in the sand. Olivia likes to sit in the sand and play, which could be seen as an attempt to access the sand from her own capabilities. Oscar also likes the sand box but prefers to stay in his wheelchair and use the adjacent sand table (figure 22). The sand table is in a sense more accessible, as no displacement is needed. As the children in this study all need help with getting to and from their wheelchairs, using the sand table means easier work for the personal assistants. It also creates an independent play time for Oscar, who might need help to roll his wheelchair up to the sand table, because of the uneven surface material, but is then able to sit and play by himself if he wants to.

Figure 22. The sand box and the sand table/elevated sand box.

For Vincent, one of the children I do not know as well, the first interactions were a bit distant. I was feeling nervous beforehand, as I previously had not talked much with Vincent. The first part of the interview was quite hesitant, and he did not want to elaborate on any thoughts he had about the park. I was dragging information out of him, which was uncomfortable for me as I did not know how much I should push him. His teachers told me beforehand that he needed clear and direct communication. I did not feel the interview was going very well. But then, when we got to the playground, something happened. We were talking about the playground and Vincent said he had not tried any of the play equipment on the playground. His assistant asked if he would like to try the swing, a big model that fits several people and you can lie down (figure 23). My first thought was, oh, that's not what we're doing, but then I went along with it, and I'm so happy I did. A flexible relation to the interview guide can lead to great things.

Figure 23. The swing.

To get to the swing, we had to cross loose gravel (see figure 23), presumably put under the swings to make sure children using the swings will not get hurt if falling off. But it is almost impossible to push a wheelchair through this kind of material. The front wheels dig themselves further into the material and you get stuck. Vincent is a quite tall teenager, and to have to carry him to the swing felt… wrong. Being a teenager, he has integrity and people around him should help him get more independent. By building the swing like this, we could not promote his independence. If there would have been other surface material below the swing, Vincent could have been next to the swing in his wheelchair. Even though he might not have been able to make it onto the swing entirely by himself, the feeling of independence probably would have increased if he was able to help in his own way with his arms or legs. The surface material hinders the independence of children using wheelchairs. When carrying him to the swing, me and the assistant had to walk in loose gravel. If one of us would have lost our grip or suddenly tripped, we could have hurt Vincent or ourselves. The surface material becomes a safety risk that could easily be avoided, as I will argue in the discussion. When on the swing, Vincent was

delighted. It was his first time ever on a swing and he loved it. He also wanted to share this experience with his assistant and with me. The following conversation took place:

> *Vincent on the swings*
> Assistant: Would you like to try the swing? I think me and Lena could help you.
> Vincent: Yes!
> *…we carry Vincent from the wheelchair to the swing…*
> Vincent: Again! [assistant] you come too!
> Assistant: With you?
> Vincent: Yes.
> *Assistant jumps on the swing.*
> Vincent: And Lena!
> Lena: Me too? Maybe I can fit. *Jumps on the swing.* We're lucky it's such a big swing that we all fit!
> Vincent: Yes! Wohooo!
> *Vincent is laughing.*
> Vincent: I'm craaaaazy! I want to do it again!

At first, Vincent was anxious and uncomfortable and did not seem to understand why I asked him about the playground, but after trying the swing, he said he liked the playground. The fact that Vincent, on our second time meeting each other, wanted me to get on the swing with him, is a sign of him accepting me. It was quite unexpected that he felt so comfortable with me, and I was happy to see him relaxed, smiling and laughing. This also made me relax, and the interview only got better from this point. The swings seem to produce a sense of freedom amongst the interviewees, as they get out of their wheelchairs and feel the wind in their faces. It is also a social activity, as the swing is big enough you can use it together with your friends.

The imagination and playfulness amongst the children are clear and therefore notable. Apparently, the forest by the playground is home to trolls. Liam is more interested in the forest area next to the park. He had been looking for trolls there earlier the same day. He didn't find any. He then says, when asked, that the playground is fun and exciting, but he would rather talk about the forest and the trolls than answer my questions. He goes on to say that he thinks the trolls stayed in the forest.

> *Liam and the trolls*
> Assistant: Do you want to share what we were doing here before lunch?
> Liam: Yes.
> Assistant: You were in the forest, on the "troll-path".
> Liam: Yes.
> Assistant: And you were looking for something…
> Liam: [signs] trolls!
> Lena: Trolls?!
> Liam: Yes.
> Lena: Did you find any trolls?
> Liam: No!
> Lena: Ok. Was it fun to look for trolls?

Liam: Yes.
Lena: Wasn't it scary too? I would have thought it was scary.
Liam: No.
Lena: So if I ask you what you think of the playground, is it good or not so good? [assigning choices to my hands]
Liam: [Chooses hand assigned to good] Good.
Lena: OK. And the forest next to the playground, is it good or not so good? [assigning choices to my hands]
Liam: [Chooses hand assigned to good] Good.
Lena: OK, and that's where you were looking for the trolls?
Liam: Yes.
Lena: OK, I see.
Liam: [signs *trolls* and smiles]
Lena: [signs *trolls*] it's fun to sign!
Liam: [signs *trolls* and *stop*, points to the forest]
Lena: Did the trolls stay in the forest?
Liam: Yes.
Lena: Ok. I brought some pictures. I'll explain them first and then you can pick the ones you want. [explains the pictures]
Liam: Fun.
Lena: Ok, do you want to use another word?
Liam: Beautiful.
Lena: Ok. Is there another word you would like to use?
Liam: No.
Lena: Are you done?
Liam: Exciting.
Lena: Oh, I get that if you've been looking for trolls! That must have been exciting.
Liam: *signs trolls, stop, and points to the forest*
Lena: The trolls stayed in the forest. *Liam starts to roll his wheelchair away* Are you done talking?
Liam: Yes.
Lena: OK, let's go to the next stop.

5.6. Leaving the park

Once we reached the last stop, I would ask the interviewees to rank the places we visited in the park based on what place they like the most and like the least. I also asked them to dream big and wish for something in the park. However, the way back to the last stop from the playground was an adventure. Before the final two questions are presented, the way to stop (6) is outlined with examples from Oscar, taking the yellow route back, and Adam and Hugo, taking the red route.

On our way from the playground back to the point where we entered the park with Oscar, we took the yellow route. Located by the entrance to the basketball court is a gazebo (figure 24). I had chosen not to ask the interviewees about the gazebo, as there are stairs to enter it, therefore making the gazebo inaccessible to the children as they all use wheelchairs. It felt mean to ask

them about a place they could not enter. No one commented on the gazebo, except Oscar. I don't think they care about it since they cannot enter it. In the same way I chose not to ask them about it because of the inaccessible entrance, the interviewees did not bring it up for discussion.

Oscar is going fast in his wheelchair. Me and the assistant are running beside him. He then stops and points to the gazebo.
Oscar: Puh. What? Wooden bench!
Lena: Yes, the little gazebo has wooden benches.
Oscar: I want to go inside.
Lena: Yes well, there are stairs to go inside, so it's a bit tricky. But you would like to go inside?
Oscar: Yes.
Assistant: Is it sad to see the stairs?
Oscar: Yes. I can't go there.
Lena: But you would have liked to go inside?
Oscar: Yes.
Lena: How does that make you feel, when you can't go inside? (…) Do you feel happy or sad?
Oscar: Sad.
Lena: I get that.
Oscar: I can't. [Assistant]. I can't.
Assistant: Do you remember, one time I carried you inside. You were smaller then. Do you remember what you thought of being inside? You thought it was hilarious!
Oscar: OK.
Assistant: Once we were inside, that is. (…) Are you thinking of something else? Are you done thinking about the gazebo?
Oscar: Yes. Go inside. Yes.
Lena: Are you done talking about the gazebo?
Oscar: Yes.
Lena: OK, let's move on.
Oscar: Can I go inside?
Lena: Yeah, but it's a shame they put stairs there so you can't go in a wheelchair.
Assistant: Several times when we go past the gazebo you get sad that you can't go inside.

Figure 24. The gazebo.

The inaccessible design of the gazebo clearly influenced Oscar. The urban greenspace of Långbroparken has generally good access for wheelchair users, but the gazebo is an unfortunate exception. I will discuss solutions to this in the next chapter.

Adam and Hugo had a lot of energy left when we were done on the playground, so I asked them if they wanted to take a different route back to stop (1). They both said yes and we took the route marked with red on the map (figure 14). Hugo described the "other side" of the pond as cosy and nice (figure 25).

> Lena: Do you think there is a difference between this side of the pond, and the side we already went on?
> Hugo: This side is better. It is cosier.

Figure 25. The cosier side of the pond (red route).

The red route goes around half the pond, very close to the water, and is a small path of stomped dirt. The general opinion of this path is that it was cosier than the asphalt walkway which is around the other half of the pond. Being close to the water and going on an uneven surface was more fun than to go on the walkway. However, this cosy path just ends with… nothing (figure 26).

Figure 26. Path to nowhere, in February and in May.

When we reached this point, there were three options. 1) we could turn around, but that was almost not an option for the children (too boring), and not for me either since the next stop was in this direction. 2) continue the path into nowhere, were the stomped dirt is exchanged to a grass covered slope, visible to the left in the picture. 3) go up the steep slope to the right in the picture, adding strain to the assistant having to use extra strength to cope with the slope. On every tour on the path, we would go for option number 3, up the steep slope. I offered to help push the wheelchairs up the slope, but the assistants declined. The path is accessible at the start, but when reaching this point, its accessibility declines. There is a fine line of making nature too accessible (as the asphalt walkways) and leaving it untouched (like the forest). This path around the pond is in the middle of these two. It seems the planners intended the path would be accessible all around the pond, but due to weather and seasonal changes, it is not. When the interviews took place the ice and snow was still melting and the ground was moist and muddy.

Figure 27. Stop 6: leaving the park.

Once at the same place where we entered the park (figure 27), I had two concluding questions for the research participants. The first one consisted of ranking the places we visited, and the second one of dreaming of something new in the park. The first question, of ranking the places we visited, was hard for some interviewees. One of the interviewees did not participate in the ranking at all, as they were cold and uninterested. Another child picked their favourite spot but did not rank the rest, as they were tired of answering questions. The results of the rankings are presented below:

1. Playground (ranked first by five children, last by two)
2. Pond (ranked first by one child, last by one)
3. Basketball court (ranked first by three children, last by four)
4. Trees (ranked first by none, last by one)

There is no consistent pattern and the children do not hold the same opinions of places in the park. The playground was top pick for five children, but it was also picked last or second to last by three children. This entails the playground sparks feelings with the interviewees, as it is either most or least liked by all but two child who placed it in second and third place. The pond, however, is more in the middle ground, as it was one child's favourite and another child's least favourite, and the other seven interviewees placed the pond second or third. The feelings of the pond do not seem to be as strong as the feelings of the playground. In contrast, the basketball court is either put on top or in the bottom of the ranking for all except one child. This suggests the basketball court provokes strong feeling amongst the interviewees. The trees are no one's top pick and one child's last ranked stop. The playground and the pond spark more feelings than the basketball court and the trees. It should also be noted the overall impression is the children like the park, even though their opinions on different parts of it vary.

The second question asked when leaving the park has to do with dreaming big. The interviewees were asked the following: "if you got to build something or bring something to the park, what would it be?". I provided some options to this rather hard and big question, namely: animals, waterfall, kiosk, friend, beach, robot, swing, trampoline. Not all children needed to hear options, but for some the question was overwhelming and they were relieved to see that I had some alternatives. Others struggled to understand the question, but when presented with alternatives it became more concrete and easier to understand what I meant. When asking what the children would wish for in the park, if they could build or bring something there, I got a variety of responses. First, I will present the responses formed by choosing from my prepared communication material or from options provided by the personal assistants:

> William[8]: Animals.
> Liam: Kiosk so that I can buy ice cream.
> Oliver[9]: Animals.
> Lilly[10]: Swing set, kiosk, trampoline.
> Ella: Robot.
> Vincent: A bridge over the pond.

Second, there are the responses of the children who wished for something in the park without options from me or their assistants:

> Oscar: A leaf hut. Waterfall, animals to play with, kiosk where we can play that you're selling ice cream. *
> Adam: Motor cross track and rental. Some kind of small boats in the pond.
> Olivia: You Lena. So that we could play on the playground.
> Hugo: That's a hard question! A big trampoline.

[8] William's communication: yes: raises arms, no: arms still, other: communication book.
[9] Oliver's communication: tilts head.
[10] Lilly's communication: yes: voice + nods head, no: voice + shakes head, other: voice, communication book, sign language.

* please note that Oscars response consists of both free thinking (leaf hut) and picking options from the prepared material (waterfall, animals, kiosk).

The undirected responses involve more of the children's interests and longings. By recalling past experiences, some of the children form dreams and scenarios for the future. The children who answered the question with alternatives naturally provided shorter answers and did not elaborate as much as the children who answered without alternatives. Some of the wishes are based on previous experiences, as the leaf hut that Oscar mentions. We continued talking about the leaf hut (figure 28):

Oscar and the leaf hut
Lena: So for my last question, I'm wondering, if you got to build something in the park, or bring something here, what would you like to build or bring?
Oscar: Anything? A leaf hut.
Assistant: What is a leaf hut?
Lena: It sounds very exciting.
(…)
Assistant: Oh, I think I know what you mean by leaf hut! Do you mean the bushes over there?
Oscar: Yes.
Assistant: Like a path in the bushes?
Oscar: Path! Yes.
Assistant: Because you can actually fit in there. [Points to the bushes] It's very tricky so you have to fight to get the wheelchair in there, but we've done it once. It was lots of fun! But you wanted to go all the way through to the other side.
Oscar: We couldn't.

Figure 28. The leaf hut, in February and in May.

The unplanned space, in form of the bushes, is an important place for Oscar. It is worth noting that we were standing close to the bushes when I asked the question, and that Oscar might have thought of the leaf hut because we were standing close to it – but it could also be that this would have been his response no matter where we were standing. The unplanned space in combination with wild or pristine nature creates Oscars favourite place in the park. It may provide him with a sense of closeness with nature, or immersing himself into it.

6. Discussion

In this chapter, the results will be discussed in relation to the theory and literature, based on the research questions. First, the research question on including children with PIMD in research practices is elaborated upon. It includes methodological considerations such as the role of the researcher and the personal assistants. Second, experiences of accessibility in greenspace are discussed. This part of the discussion is divided into sections of accessibility, and concludes with discussing the title of this project, "I never tried the swings before".

6.1. In what ways may children with profound intellectual and multiple disabilities be included in research practices?

As environmental justice aims to explore, represent and demand justice, including the factors of distribution, recognition, capabilities and functioning (Schlosberg, 2007), the perspectives of children with profound intellectual and multiple disabilities are worth researching. Complementing previous studies on disabilities and greenspace not including persons with intellectual disabilities (Axelsson, 2014; Corazon et al., 2019; Seeland and Nicolè, 2006), this study shows that it is possible to interview children with profound intellectual and multiple disabilities (PIMD) and gather their experiences of accessibility in greenspaces through adjusting the interview situation to suit their individual needs.

In contrast to Axelsson (2014), who involved people around children with PIMD when performing their research, this study asked the children with PIMD themselves. This was a purpose with the study, as Boxall and Ralph (2010, p. 173) note that "People with learning disabilities who do not use speech are often left out of research.". The statement from Seeland and Nicolè (2006, p. 30) saying they avoided interviewing persons with intellectual disabilities because it was "too difficult" is problematic as it contributes to a hierarchy within disability research, where physical disabilities are more normalised than intellectual or cognitive disabilities. The normative discourse of considering persons with intellectual disabilities as difficult to include in research practices reproduces this assumption (Boxall and Ralph, 2010). In addition, the issue of recognition becomes prevalent as cultural norms and institutional power prevent marginalised groups from being included in research (Fraser, 1997; Holifield, 2015). The inclusion of children with profound intellectual and multiple disabilities in research practices is advocated by Stenhammar, Rinnan and Nydahl (2011), who argue that efforts tailored to meet children's needs are considered highly successful. Similarly, Young (1990) argues for the inclusion of marginalised groups in research practices, which is also crucial if the United Nations Sustainable Development Goal 11.7 of inclusive and accessible greenspaces is to be achieved (United Nations, 2015).

Thus, this study demonstrates that the basic requirement of learning the research participants individual communications is crucial in performing research with persons with PIMD. Cameron and Murphy (2006) note that the relationship between the researcher and the participant is

essential in performing research with persons with learning disabilities. They conclude that this may be facilitated by appointing a researcher "skilled at establishing rapport and social closeness with participants" (Cameron and Murphy, 2006, p. 117). I was advantaged in having established relationships with participants prior to starting this research project, as such I had a rapport and social closeness with most of them. Mietola et al. (2017) describe a strong reliance on people working close to their research participants, which I only partly relied on thanks to my previous knowledge. This might have made it easier for me than for someone without these personal relationships to conduct this study. Someone with an outsider perspective might have gathered different results. The indicators provided by Cameron and Murphy (2006, p. 113; table 1) on consent for research participants with learning disabilities have been guiding the project. Again, the researcher needs to be attentive to such indicators, to ensure the experiences of the children are accurately understood.

In accordance with Axelsson (2014, p. 68) who discuss personal assistants' function as facilitators for the children's body functions, activities and participation, this study has shown the personal assistants are enablers in all these areas. As also noted by Axelsson (2014), the personal assistants provided strategies for how to increase participation of children with PIMD. Such strategies included engaging in the activities oneself and offering opportunities for the child to influence the activities (Axelsson, 2014). Participation and capability of play, including laughing, is part of environmental justice as discussed by Nussbaum (2000) as capabilities necessary for functioning. An example of participation and the capability of play was demonstrated by Adam and his assistant as they were playing in the sand box. The assistant played along, digging holes and letting Adam yell at him to dig faster, or built sand castles that Adam would then crash, all for the enjoyment and participation of the child. It is worth noting that such playfulness is not a requirement for a personal assistant, but highly appreciated, as shown when Adam recalled such memories with a big smile and many laughs. The capability of play depends on the functioning of the child, meaning the ability to achieve the capability of play. Even though the sand box is there for everyone to enjoy, a child with profound intellectual and multiple disabilities and a child with no disabilities have different capabilities of achieving the functioning of play (Sen, 2005). For Adam, his capability to enjoy the functioning of play in the sand box is dependent on his personal assistant. Similarly, being interviewed may be a functioning. As a necessity for the functioning of being interviewed, communicating is a capability (Nussbaum, 2000). To improve this capability, and to elevate the communication ability, personal assistants play important roles. In order to include children with PIMD in research practices, the functioning of being interviewed and the capability of communicating are crucial. The relationship between the child and their personal assistant is then crucial in what functionings the child may access, and if the child may partake in research practices.

Also discussing relationships between personal assistants and their clients, Fänge, Iwarsson and Persson (2002) consider some of the teenagers using personal assistance did not report certain accessibility issues because they were removed by the personal assistants. For example, the respondents did not report heavy doors which should have been hard to open on their own, since their assistants opened the doors for them. A heavy door is an example of the environment causing disablement, as seen in the relational model of disability (Goodley, 2011; Lid, 2013).

According to the relational model of disability, disablement occurs as personal capabilities and environmental factors do not align (Goodley, 2011; Lid, 2013). The same circumstances as presented by Fänge, Iwarsson and Persson (2002) take place in this study as the children are often unaware of accessibility issues because the personal assistants take care of them. For example, when entering the playground with Adam, his assistant tilted the wheelchair to go on the back wheels only. While Adam found the manoeuvre a little crazy and fun, his assistant did this to not get stuck with the tiny front wheels of the wheelchair in the loose surface material, without Adam reflecting upon it. This is an example of the capability of bodily integrity, being able to move freely from place to place (Nussbaum, 2000) being improved by the personal assistant. The personal assistants do a lot in the background to enable independence for the children they work with, which shaped the results of this study. The researcher influences the interview situation and results, but so does the personal assistants who were present during interviews. The personal assistants were more or less active during the go along interviews but are nonetheless important factors for children with PIMD to participate in research practices. Thus, children with PIMD may be included in research practices through adaptive interview situations, in which personal assistants participate.

6.2. What experiences of accessibility do children with profound intellectual and multiple disabilities have of urban greenspace?

The children participating in this study should have equal access to Långbroparken, according to environmental justice literature (Schlosberg, 2007), and the United Nations Sustainable Development Goal 11.7 of inclusive and accessible greenspaces (United Nations, 2015). To understand how to create inclusive and accessible greenspaces for children with PIMD, their experiences of use and accessibility in Långbroparken have been gathered and will now be discussed.

Accessibility as objective and individual

Accessibility is a multi-facetted concept and may be measured in objective or individual terms (Wang, Brown, and Liu, 2015; Wang et al., 2015). This distinction is evident as the Älvsjö District Administration (2016) remark the many benches in Långbroparken improves its accessibility. However, as Hugo said when I sat down on a bench, he never uses the benches. As Hugo already sits in a wheelchair, the benches in Långbroparken does not improve the accessibility for him. The individual experiences of accessibility are not in accordance with the objectively determined accessibility by the district administration, which is cohesion with previous studies (Macintyre, Macdonald and Ellaway, 2008; Wang, Brown and Liu, 2015). Park planners may add benches because they think that is what persons with disabilities need, but a resting spot for Hugo might be something completely else than a bench, such as a secluded or hidden spot in the park with less impressions (Corazon et al., 2019; Stigsdotter, 2015).

In the analysis by Älvsjö District Administration (2016) accessibility is only mentioned when highlighting the many benches and few differences in altitude in Långbroparken. Älvsjö District

Administration (2016) measure accessibility quantitatively, in a similar way to Wang, Brown and Liu (2015) and Wang et al. (2015), as no personal testimonials are included. The asphalt walkways are presented as creating accessible routes in the park by the Älvsjö District Administration (2016), as they are broad and flat with only slight differences in altitude. However, differences in altitude, which are seen as hinders by the Älvsjö District Administration (2016) may actually be encouraging play, as Ella and Oscar made the walkways fun by going fast down the little slopes. Relating to the research presented by Fänge, Iwarsson and Persson (2002) on the importance of surface material, although sometimes inaccessible like loose gravel, uneven surfaces also proved to be appreciated by the participants in this study. The red route in figure 14 is apparently cosier than the asphalt walkways, even though, or maybe because, it is slightly uneven and bumpy. In contrast to Fänge, Iwarsson and Persson (2002), where the respondents were teenagers in a city environment and commented on uneven paving stones as hinders and problems, the respondents in this study seem to appreciate a slight unevenness. The reasons for this could be many, for example because they are younger than the participants in Fänge, Iwarsson and Persson (2002) and therefore more playful, or because their intellectual disabilities make the bumps fun (the participants in Fänge, Iwarsson and Persson, (2002) did not have intellectual disabilities). In addition, the teenagers in Fänge, Iwarsson and Persson (2002) are on a mission to go somewhere, compared to the children in this study out on a casual stroll. Because the research participants are children looking for adventures, everything "out of the ordinary" becomes interesting, such as going off the beaten track.

There seems to be a divide of what planners expect children with disabilities to enjoy, and what the children with PIMD actually do enjoy. As Stenhammar, Rinnan and Nydahl (2011) argue, children provide contrasting perspectives to adults, and deserve to have their voices heard. The divide between planners and children with PIMD could be bridged with the inclusion of children with PIMD in research and planning practices (Young, 1990). This study offers empirical knowledge on park usage in Långbroparken, which may be seen as a first step in moving towards user-oriented planning practices, as promoted by Fänge, Iwarsson and Persson (2000), and including marginalised groups in research practices (Young, 1990). User-oriented solutions include personal experiences of accessibility, and it is notable that functional limits are personal, which is why the experiences of accessibility are too (Fänge, Iwarsson and Persson, 2002).

Multisensory accessibility is described by Corazon et al. (2019) as a feeling of closeness with nature and immersing oneself within nature. The multisensory aspect of accessibility is present in this study when Liam searches for trolls in the forest and Oscar dreams about his leaf hut. For children with PIMD, it may be necessary to use all senses to perceive the park environment (Stigsdotter, 2015) which is clear as Liam explores the forest in a thorough way at the same time as he immerses himself within nature. On the playground, there is no opportunity to fully immerse oneself into nature and create this multisensory experience, as it is a meticulously planned space. Oscar, dreaming about the leaf hut, displays a longing of closeness with nature. His wish to have leaves on both sides and above him is interpreted as a way of truly immersing himself in nature (Corazon et al., 2019). The multisensory experience might also occur when going on bumpy paths and off the beaten track, and yet another immersion into nature might

occur when being close to the mallards that live in the pond, as noted by Hugo who says the birds make the pond cosy.

Person-environment interactions

Disability occurs in the gap of personal capabilities and environmental factors (Lid, 2013), and such interactions are discussed by Francescutti et al. (2009). When applying the person-environment interaction classification tree (figure 2) by Francescutti et al. (2009) to the results of this study, the options of organise/redesign facilitators or removing barriers remain. Facilitators are for example ramps or curb cuts, while barriers may be stairs or high curbs. In the context of this thesis, the gazebo with stairs leading up to it is an example of a barrier. According to the person-environment interaction classification tree, the options are to either organise or redesign a ramp, or to remove the stairs to the gazebo. In this study, Oscar wanted to enter the gazebo, but realised the stairs does not allow him to do so. He reluctantly accepted he could not enter the gazebo because of it not being wheelchair accessible. When deciding where to go and what places to visit, the participants in Fänge, Iwarsson and Persson (2002) based their decisions on accessibility, but Oscar is a child who wants to play and explore, and does not base his decisions on the accessibility of places. Bodily sovereignty and being able to move freely from place to place is listed as a capability for functioning by Nussbaum (2000, p. 78-80), and disablement occurs as Oscar's functional capacity and the environmental conditions do not comply (Goodley, 2011; Lid, 2013). The accessibility may be improved by altering either Oscar's functional capacity, or by altering the environmental conditions (Jensen, Iwarsson and Ståhl, 2002). Through limiting environmental demands, in this case altering the gazebo stairs, the functional capacity of Oscar increases (Jensen, Iwarsson and Ståhl, 2002).

While Fänge, Iwarsson and Persson (2002) recommend systematic assessments instead of altering the already built environment, such solutions may be necessary when discovering inaccessible environments after they have been built. If planning practices involved perspectives and needs from children with PIMD from the start, perhaps alterations to the already built environment would not be needed, but for the gazebo, it would be useful to create a more accessible entrance. User-oriented solutions are key (Fänge, Iwarsson and Persson, 2002), and the Swedish Association of Local Authorities and Regions (2006) even provide an example of a wheelchair accessible gazebo. For the gazebo in Långbroparken, a ramp would provide many people with access to the gazebo, not only the children of this study but also families using strollers or elderly persons struggling to climb stairs. Since the gazebo is located in an incline, it could also be altered from the other side, keeping the stairs and its original look (figure 29).

Figure 29. The gazebo in Långbroparken (photo by author) and an example of a wheelchair accessible gazebo (Swedish Association of Local Authorities and Regions, 2006, p. 33).

Physical barriers may be adjusted relatively easy, but social access is a more complex issue. Wang, Brown and Liu (2015, p. 53) state that "increasing park infrastructure may not necessarily improve perceived access to parks", highlighting the importance of social factors when improving accessibility. Also, as put by Lid (2013, p. 212): "… even when physical barriers have been removed, there may be negative attitudes, ignorance and prejudice associated with disability than can cause barriers." This means it is not certain that a ramp to the gazebo would create an inclusive and accessible park environment, but it would be a step in the right direction. In addition, Wang et al. (2015, p. 65) argue that local people and people using the park should be able to influence its environment. According to environmental justice theory, since the school the participants in this study attend is located close to Långbroparken, they should then be able to influence its design (Nussbaum, 2000; Schlosberg, 2007; Sen, 2005). At the very least, Långbroparken should be designed and maintained with children with PIMD in mind as they use it in their daily lives (Nussbaum, 2000; Schlosberg, 2007; Sen, 2005). Families with young children and strollers as well as elderly persons with wheelchairs or walking frames also use the park, also use the park, which further enhances the importance of creating an accessible environment.

Attitudes and social stigma hinder the social accessibility (Hallberg and Hallberg, 2018; Stigsdotter, 2015), which is evident in Prellwitz (2001) as some children say: "the playground is not for me". In addition, participants in the study by Corazon et al. (2019) report feeling like other people stared or being excluded because of environmental factors. This sentiment of outsideness is clear with Oscar as he wants to enter the gazebo, and with Vincent as he says he never tried the swings before. There is also the assumption from planners that children using wheelchairs always have an adult with them who can help (Prellwitz and Tamm, 1999). The use of a personal assistant is a way of increasing the individual capacity of the child, which is a way of increasing accessibility according to Jensen, Iwarsson and Ståhl (2002). However, the assumption of children in wheelchairs always having someone with them to rely on is part of what creates social stigma and the feeling of outsideness according to Nussbaum (2000, p. 78-80) and the capabilities approach in environmental justice, as bodily integrity, moving freely and the right to play are key capabilities. The capabilities of moving freely and play are further demonstrated on the basketball court where the children go wheelchair dancing, as the physical

accessibility allows for social accessibility to occur. On the basketball court, there is no gap between personal capacity and environmental factors, which allows for accessibility to arise (Jensen, Iwarsson and Ståhl, 2002).

"I never tried the swings before"

When Vincent wanted to try the swing, his assistant and I carried him, a 15-year-old boy of average size for that age, without any lifting aids, about 5 meters to the swing. Underneath the swing is loose gravel, which is inaccessible due to the wheels of the wheelchair getting stuck in the sand-like material. Even though we did not carry Vincent for a long distance, this still poses as a safety issue. If any of us would have lost our grip or tripped, we could have dropped Vincent and injured both him and us. This risk exposure could be avoided by changing the surface material under the swings so that it is wheelchair accessible. For example, rubber asphalt (also known as rubber paving or poured rubber) is a good option as it provides a flat surface accessible to wheelchairs but is also softer than asphalt as it is slightly springy (Swedish Association of Local Authorities and Regions, 2006).

The Stockholm Traffic and Property Management Department (2005) ask if everything in playgrounds should be accessible to everyone. For the children in this study, there seem to be no question of whether they should have the same opportunities to play on the playground as everyone else – of course they should. It also relates to the attitudes of creators of playgrounds, which contain the belief that children with disabilities often have adults with them, who can carry them on the playground (Prellwitz and Tamm, 1999). These attitudes do not contribute to the independence of persons with disabilities but assume that they rely on personal assistance (Fänge, Iwarsson and Persson, 2002). In contrast, if creators of playgrounds would strive for independence of playground users, being accompanied by an adult who can carry you would not be in focus, instead, surface materials and adjustments of equipment would dominate the discourse. The question posed by the Stockholm Traffic and Property Management Department (2005) is also a question of justice. According to environmental justice literature and the capabilities approach, a capability for functioning and having a good life, is "Play: Being able to laugh, to play, to enjoy recreational activities." (Nussbaum, 2000, p. 78-80). To enjoy recreational activities, and hold this capability, parks need to be designed in an inclusive and accessible way, and to know how to make parks inclusive and accessible, the perspectives from persons using them are needed (Fänge, Iwarsson and Persson, 2002). As noted by Corazon et al. (2019), one size does not fit all, hence individual experiences of use and accessibility are required to plan parks accordingly.

7. Conclusions

Children with PIMD have opinions and experiences of urban greenspace and may be included in research practices through suitable interview situations. It is an advantage if the researcher has previous knowledge and experience of communicating with children with PIMD, or if the researcher cooperates with someone who does. In addition, the personal assistants play important roles in shaping the interview situation and enhancing the children's capabilities of communication. This study complements previous studies on greenspace and park access as it includes perspectives of children with PIMD using augmentative and alternative communication, which has only scarcely been used in research. Being a small case study, it does not provide universal explanations, but specific qualitative data. The interviewees' opinions and experiences of the park are individual and should not be generalised.

The experiences of accessibility of children with PIMD include themes such as feelings of outsideness, immersing oneself into nature and the interaction of person and environment. Accessibility becomes subjective, as it depends on the individual's capabilities, explained by the environmental justice framework as abilities necessary for different functionings. Accessibility is achieved when the child's abilities are met by the environmental factors of the park, meaning the abilities and experiences of accessibility are personal. It is concluded that this diverse group of individuals has the right to experience the park and benefit from its positive effects on health as much as anyone else.

For future research, it would be interesting to include persons with disabilities whom I did not have the opportunity to include, such as persons with blindness or deafness. It would also be interesting to explore the relationship of the children and their personal assistants further. For researchers interested in the topic of access to greenspace for children with PIMD but do not have previous experience or knowledge of augmentative and alternative communication, it is recommended to cooperate with other researchers or skilled professionals with such abilities.

To achieve the United Nations Sustainable Development Goal 11.7 of inclusive and accessible greenspaces, more research on what makes such spaces inclusive and accessible is needed. As one of the most marginalised groups in society, children with PIMD carry valuable perspectives on what is needed to create inclusive and accessible parks. To include perspectives from children with PIMD in planning practices, they need to be involved in research practices, such as this study. When fulfilling the goal of truly inclusive and accessible greenspaces, I hope that no child with profound intellectual and multiple disabilities has to say they never tried the swings before.

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