Accessibility to sports facilities for girls with foreign background

A mixed methods study exploring accessibility and experiences within the sports movement in Stockholm and Huddinge municipality

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Abstract

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The thesis aims to explore accessibility to sports facilities for 10-20-year-old girls with foreign background and their experiences of being a prioritized group, as stated in political sports programs. The participation in sports is low for this group and in Stockholm municipality, where there is a shortage of sports facilities, there are few opportunities to practice. Doing mixed methods, integrating maps made in GIS and interviews, both spatial and spatial-temporal accessibility was explored in order to get a comprehensive understanding of accessibility to sports facilities. By interviewing their coaches, experiences regarding how they are prioritized and what obstacles they face are explored. Further, previous research of accessibility is mainly about proximity and distribution, therefore, I include time as an aspect, using time-geography as an analytical tool to understand the experiences. The result shows time plays an important role, that they don’t feel prioritized and that they experience problems regarding transportation. Furthermore, the thesis discusses the conflict of optimal sports facility use and inclusion, how planning practice can contribute to a more inclusive sports environment and some implications for change.

Key words: Accessibility, Time-geography, GIS, Sports facilities, Girls with foreign background.
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1. Introduction

Sweden has an extensive organized sports movement with over 20 000 organized sports organizations. For many individuals, organized sports are a means of getting exercise, socializing, and having meaningful leisure. However, there are differences in participation in organized sports when comparing age, gender, physical disability, and foreign or domestic background. In the political sports program for the city of Stockholm (2018) it states that four groups should be prioritized regarding access to physical activity;

- Youths in the ages of 13-20 years old (especially girls)
- Individuals that have physical disabilities that are 7 years old or older
- Youths between 10-20 years old with low socioeconomic background
- Girls with foreign backgrounds that are 10-20 years old.

These groups have been identified as lacking physical activity, and the same four groups are mentioned in the Huddinge municipality sports political program (Huddinge kommun, 2021). The Swedish Sports Confederation (Riksidrottsförbundet)(2010) and city of Stockholm (2018) reports that 10–20-year-old girls with foreign backgrounds are the group among the four prioritized groups that lack physical activity the most. Further, they are the least participative group in organized sports such as basketball-, football- or handball teams. Participation in organized sports is mentioned in the political arena and the media as a vessel for physical health, integration, and social qualities. Since there is a group that mainly is missing out on these characteristics, 10-20-year-old girls with foreign backgrounds are the group that this study will focus on. The Swedish Sports Confederation (2010) regards foreign backgrounds as being born outside of Sweden or having both parents born outside of Sweden, which is the distinction I will also use.

Research regarding accessibility to sports facilities, in terms of proximity, shows that having easy access increases the likelihood of physical activity and that access to sports facilities is worse for individuals living in areas with lower socioeconomic backgrounds (Pouliou, et al., 2019). However, there are mixed findings in the field of research. This raises the question of how the accessibility to sports facilities is in the Stockholm area. The city of Stockholm (2018) states in its political sports program that no matter where you live in the city, it should be possible to perform sports or exercise within a reasonable distance. By accessibility, the political sports program regards the proximity to sports facilities and being adjusted for people with physical disabilities. The latter form of accessibility is not within the scope of this study. Proximity is one of the factors that make sports facilities accessible. However, Heick (2019) states there is a shortage of sports facilities in Stockholm municipality, with only 13 sports facilities per 100 000
inhabitants. So, there is a high demand for sports facilities to practice in, and even if there are sports facilities nearby, they are not necessarily available since many sports clubs have to share the facilities. Time plays a crucial factor here as children should not, or can not, have practice late at night and must be prioritized to make organized sports available. The aspect of time to have practice as a measure of accessibility, I would argue, is relevant for understanding accessibility for 10-20-year-old girls with foreign backgrounds. Since there are differences in preferred sports to practice when checking for age, gender, and foreign or domestic background, what sports are given the most attractive timeslots might have an impact on the participation of the group of interest. The Swedish Sports Confederation (2010) reports that basketball is the most popular sport amongst girls with foreign backgrounds. Therefore, the study is delineated to collect data from individuals with excellent knowledge of girls with foreign backgrounds participating in basketball clubs. Starting with using accessibility as a strictly physical term, meaning the spatial proximity to sports facilities in a given area, this study will also explore accessibility in terms of spatial-temporal accessibility.

1.1 Aim and research questions

This study aims to explore different aspects of accessibility related to the participation of 10-20-year-old girls with foreign backgrounds in organized sports and what factors can increase participation for them.

The research questions are:

1. How is the accessibility to sports facilities for 10-20-year-old girls with foreign backgrounds in Stockholm and Huddinge municipality?
2. Does accessibility to sports facilities matter for 10-20-year-old girls with foreign backgrounds in Stockholm and Huddinge municipality?
3. How do the coaches of 10-20-year-old girls with foreign background experience that they are prioritized?
4. How can the theoretical framework of time-space geography be applied to studies of accessibility to sports facilities for 10-20-year-old girls with foreign backgrounds?

1.2 Delineation

This study is delineated geographically to the Stockholm area, and the participants are narrowed down to coaches that are involved in basketball. This delineation is because basketball, according to the Swedish Sports Confederation (2010), is the most popular sport amongst girls with foreign backgrounds compared to peers with Swedish-born parents. Football has more participants, but basketball has a higher percentage of girls
with foreign backgrounds, thus, being the most relevant group for this study. The geographical boundaries are set for Stockholm and Huddinge municipalities.

1.3 Significance and Contributions

This study is significant as it addresses an important issue of accessibility to sports facilities for girls with foreign backgrounds in Stockholm. I argue that the academic relevance of this study is created by applying the theory of time-space geography to gain knowledge about accessibility for girls with foreign backgrounds in the context of sports facilities, in which there is no other research like it. The theory can help with the analysis of the experiences in order to gain a deeper understanding of a group in society that in this field of research has been overlooked. Further, the research aims to contribute to developing inclusive urban policies and practices that support the participation of these girls in organized sports. The study is expected to provide valuable insights into the barriers and challenges that hinder their participation and identify potential strategies for prioritizing their needs in the political agenda and municipal planning processes. The findings of this research have the potential to inform policymakers, planners, and sports organizations to design more equitable and inclusive sports facilities. As well as to plan better for a more inclusive sports arena for girls with foreign backgrounds to reside in. The study also has the potential to provide knowledge about the experiences of people with expert knowledge and how they experience that they, as the political sports programs state, are being prioritized.

1.4 Contextual background

The contextual background provides an understanding of the Swedish context revolving how sports traditionally operates. Further, it discusses the relationship between the government and the organized sports clubs.

1.4.1 Swedish organized sports

The Swedish organized sports system operates on a membership-based structure that forms the foundation for developing and administering sports activities. This system ensures that individuals, clubs, and organizations can participate, compete, and contribute to the growth of sports in Sweden (CIF, 2022; Nyholm & Svensson, 2009). The membership-based system makes sports clubs or organizations that offer a wide range of sporting activities viable. These clubs are often grassroots organizations run by dedicated volunteers who devote their time and efforts to offering sports locally. Sports clubs provide a platform for individuals of all ages and skill levels to engage in sports, offering exercise and a forum to socialize. Individuals typically become members of their chosen sports clubs to participate in organized sports. The membership entails
paying a fee, which may vary depending on the club and the level of involvement. This fee helps cover the costs associated with facilities, equipment, coaching, and other operational expenses. In return, members gain access to practice sessions, competitions, and various benefits offered by the club (Nyholm & Svensson, 2009).

A partnership between the Swedish government, local authorities, and voluntary sports clubs has shaped Sweden's sports policy development. The partnership has resulted in significant financial support for organized sports. The Swedish government determines the amount and purpose of the funding, while the Swedish Sports Confederation (Riksidrottsförbundet) is responsible for distributing and administering the funds. These funds are allocated to over 20,000 sports clubs and their 3.1 million members, with the expectation that they contribute to public health and the development of democratic citizens (Fahlén & Stenling, 2016). There has been a recent shift towards increased performance expectations. This has led to a broader social responsibility for organized sports and the implementation of performance indicators to assess the impact of government support (Ekholm, 2019).

1.5 Disposition

The disposition of this thesis is as follows: the first section has introduced the thesis and specified the aim and research questions. Following, I introduce the theoretical framework of time-geography and previous research that is used in the thesis. After the theoretical framework, the methodology and the rationale for conducting mixed methods is discussed. Further, the process of the data collection both in the quantitative and qualitative approach as well as analysis of the material is described. The result chapter follows, presenting maps and interviews and in the analysis chapter the collected material is presented in the themes; Spatial and Spatial-Temporal accessibility, Capability constraints, Coupling constraints, Domain, Including and Excluding conditions and Prioritization of girls with foreign background. Next, a discussion of the findings is made and finally a conclusion containing limitations and suggestions for future research.

2. Theoretical framework

Hägerstrand developed the concept of time geography, which became popular in the 1970s. The concept revolves around material objects and an individual’s daily life is bound in space and time, integrated into one another. The concept of time geography is a valuable tool to unveil structures of power and inequalities (SOU, 1970:14). Gren et al. (2003) discuss that a critical concept in time geography is that anything in a time-space should be studied in an integrative manner of both time and space, meaning that
space is visualized in two dimensions and time in a third. Hägerstrand states that whatever is within a time-space should be studied integrative by the objects or the individual's trajectory. An individual's trajectory can move through different stations, such as the workplace, home, or school. Hägerstrand visualizes the trajectory of an individual with a prism, showing how trajectories for different individuals in the time-space can be affected by different phenomena. These can be using a car or accessing specific locations in space only during certain times (SOU, 1970:14). Gren et al. (2003) discusses Hägerstrand's assumptions about an individual's actions as restricted by time and space. Capability constraints are about having different means of how to travel through time-space. A car, for instance, allows you to travel further in space without consuming as much time as if you would walk. There are also capability constraints regarding an individual's biological needs, i.e., sleep and food. Coupling constraints are restrictions that result from the demand for things to be in a particular time-space for them to be useful. For example, the production of a car in a factory. The different material parts, the machine, the tools for assembly, the needed tech, etc. There also has to be a social organization where the workers are trained and able to assemble the car. The workers are rendered useless if there are no materials and vice versa. This is a term called project, in which both material things and a collection of actions must be coordinated in time-space to reach the goal, which in this example is to build a car. A third restriction is authority constraints which is the fact that in different time-spaces there are formal and informal rules that limit the individual from what they can and cannot do. For example, in the movie theater, you are expected not to answer your phone or talk loudly during the movie. In traffic, there are formal rules in time-space necessary for not crashing into other cars and potentially hurting someone (SOU, 1970:14).

Hägerstrand introduces the term domain, which he proposes should be used for the populated areas divided into small and big units, where some have formal, strict boundaries and others have informal, vague boundaries. In these domains, individuals or groups can exercise control and decision-making. The domains can be your bedroom, your office, the city in which you live, your neighborhood, etc. To gain access to a domain, some sort of ritual, invitation, or payment is often necessary since the domains are often filled with natural or fabricated assets. The domains can contribute to understanding how a trajectory of an individual is spent within the time space. For example, examining how much time a woman and a man spend in a relationship in different domains such as the laundry room, the kitchen, the playground, work, or with friends. The domains and time spent within them can unveil, for example, how much domestic work is divided between men and women and whether it is equal or not (ibid).
2.1 Application of time-space geography in this study

To grant a deeper understanding of Hägerstrand's theory of time-space geography, an application on this study's subject can help. To increase transparency and decrease the level of interpretation in this study, an explanation of the application of the theory is necessary. The theory of time-space geography introduces some terms that will be used in the analysis section of this study. To illustrate; to apply the term capability constraint in the field of this study, an example could be if a girl with foreign background owns a bike or not. If she does, her movement through space can be faster regarding the time it takes from point A to point B. Further, by analyzing the different domains in the participants' lives, I can create prisms of their trajectory to gain further knowledge and illustrate in a pedagogical manner how trajectories and restraints to the exact domains may be affected by socio-economic features. Kwan (2012) analyze accessibility using time-geographical concepts and introduces time as an accessibility measure. Kwan states that it is of importance to include both place and time when exploring peoples everyday lives, when and where they do their tasks of an ordinary day must be put not only in a spatial context but also in a temporal context. The significance of mobility in individual's spatiotemporal experiences cannot be overstated. Merely examining an individuals's location falls short in fully grasping the intricacies of these complex experiences.

3. Literature review

To analyze the results of this study, it is vital to provide a conceptual background and a theoretical framework that makes analysis possible in terms of urban and regional planning. To understand accessibility to sports facilities, the conditions in which girls with foreign backgrounds operate in organized sports, and how urban planning practices can provide meaningful insight, this chapter aims to give an overview of the field of research in order to grant the reader the information they need when reading forward.

3.1 Urban planning and physical activity

Faskunger (2007; 2008), Handy et al., (2002) and Remme et al. (2021) will provide insight into how planning practice can provide an increase in physical activity; though it does not deal with organized sports per se, it does show how physical activity can be planned for in society. Norberg (2011) discusses the relationship between decision-makers and organized sports, giving insight into the expectations and obligations that exist between government and sports organizations. This grants an overview perspective on the phenomenon of organized sports in Sweden and the structures that control it, granting me insight into my interviews and depicts the climate in which organized sports are.
Research in this field examines how green spaces can contribute to physical activity. There are quite conclusive statements that refer to that urban green spaces have a positive impact on individuals physical health (Faskunger, 2007; Faskunger, 2008; Remme et al., 2021)

Faskunger (2008) states that the near environment to an individual's home is a common space where physical activity is performed. Thus, to promote physical activity, planners must create spaces near housing complexes where physical activity can be performed. Faskunger (2008 a) has researched how the built environment affects the physical activity of children, presenting results that the built environment needs to be safe and attractive for children to be active in. Not only is it essential to create spaces that are “child-friendly”, but it is also important to create possibilities for active transportation to schools and playgrounds. Active transportation, Faskunger (2008 a) refers to walking or bicycling, and results show that children that use active transportation have greater physical well-being than those that do not. Handy et al. (2002) states that urban planners have the potential to increase walking and bicycling instead of driving a car to places that are near. This can increase the physical activity of individuals. In order to promote these modes of transport, planners must have an urban design, land use patterns, and system of transportation that creates environments in which walking and bicycling is the optimal choice for the user.

Remme et al. (2021) state that planners aiming towards having urban green spaces and promoting physical activity can combine the aims to succeed. Remme et al. (2021) promote integration regarding planning processes that include physical activity promotion and urban green spaces, as it seems that urban green spaces create incentives for physical activity. By integrating a nature-based physical activity model, planners can, depending on a city's demographic, needs, and aims, create a space that promotes both urban green spaces and physical activity. Another area in urban planning and physical activity is the mode of transportation in an urban environment. Handy et al. (2002) states that urban planners have the potential to increase walking and bicycling instead of driving a car to places that are near. This can increase the physical activity of individuals. In order to promote these modes of transport, planners must have an urban design, land use patterns system of transportation that creates environments in which walking and bicycling is the optimal choice for the user.

Norberg (2011) discusses the relationship between the Swedish government and the sports movement. By describing the government's funds to organized sports organizations and analyzing the government's expectations of organized sports organizations, Norberg (2011) introduces the term implicit contract as a way of describing this phenomenon. Norberg (2011) problematizes the relationship by discussing whether the autonomy that Swedish sports organizations have is possible. Since the government is funding the sports movement for an extended period, he
discusses the possibility that the sports movement should act as a tool for the government to tackle social problems. It is not confident that the sports movement can survive without the extensive public support that they are granted; on the other hand, is the sports movement responsible for acting as a socially inclusive force, or are they to provide public health and a rich variation of sports alternatives to the Swedish population. The article examines how a policy change can change the current relationship. The government can mold the sports movement to what they please by exercising financial-, legal-, recruitment-, and organizational control or through information and informal contacts. However, Norberg (2011) discusses this as a democratic dilemma as it is not necessarily in the sports movement's interest to tackle the social problems the government wants them to tackle.

Changes in the government's sports policy have evoked mixed feelings within the sports community. On the one hand, the increased funding has been warmly received. However, the augmented state control has faced criticism for conflicting with the authoritative role of the sports movement and impinging upon its autonomy. While this criticism has somewhat supported the sports movement's influence in fund allocation, it has not decreased the state's interest in establishing specific sport policy objectives and evaluating the sports movement's connection to these goals. Consequently, the previous implicit contract between the state and the sports movement has been replaced by a new, outcome-driven, and more formalized cooperation agreement (Norberg, 2011).

3.2 Accessibility

Liu et al. (2022), Bhat et al. (2000) and Guida & Caglioni (2020) discuss the importance of defining the type of accessibility measure that researchers intend to use in their studies. Operationalizing and defining their measures of accessibility and being critical of their measures to decrease misinterpretation of the results.

The term accessibility is discussed and used in research regarding urban and regional planning. However, accessibility can be measured differently, as shown by Liu et al. (2022). Liu et al. uses different measures of accessibility to public sports spaces based on residential scale data. The measures used take both proximity to and distribution of public sports spaces into account. With proximity, Liu et al. (2022) refers to how accessible a public sports space is by walking or using public transport from a given residential building. Distribution is the number of public sports spaces per a given area, the number of public sports spaces per 10 000 inhabitants, the percentage of sports space area of the total of a given area, and the area (m2) of public sports space per inhabitant. Their study aims to develop a spatial equity index. Bhat et al. (2000) also aims to develop an index for measuring accessibility. Bhat et al. (2000) provides an overview of different types of accessibility measures where they discuss five types of accessibility measures. Bhat et al. (2000) provides this in order to develop an urban
accessibility index that can be used to provide accessibility information that is precisely adjusted to multiple levels of modes of transport, activity purposes, times of day, and spatial interest. Also, the index is intended to reflect the extent of interaction between an area's development pattern and the transportation supply modes, thus, enabling the identification of areas with low accessibility and providing helpful insight into the prioritization of alternative projects. Bhat et al. discusses the need for clarity regarding the operationalization of accessibility and stresses the need for researchers and laymen to be thorough when defining it. Guida & Caglioni (2020) states that evaluating accessibility cannot be done by simply counting the number of facilities or services within a given geographic area. Various factors, such as spatial externalities, transportation network structure, traveler decision-making, distance-based frictional effects, supply-side properties, and measurement issues, must be considered. Accessibility encompasses a wide range of physical, psychological, economic, and social features.

3.3 Accessibility to sports facilities
Billaudeau et al., (2010), Bueno et al., (2020), Higgs et al., (2015), Panter et al., (2008) and Persson & While (2012) displays why and how GIS tools can provide valuable insight in accessibility to sports facilities, exemplifying with research of accessibility to sports facilities that differs depending on socioeconomic status in the area. While these studies grant me a background on how to use GIS as a tool for understanding accessibility, I make my own decisions, based on the available data and timeframe. However, the studies give me inspiration and understanding of the field, being critical regarding operationalization and interpretations of results.

Billaudeau et al. (2010) concludes in their study of disparities in spatial accessibility to and of sports facilities that area income did not correlate with lower accessibility to sports facilities. However, there is a lower degree of type of sports facilities in these areas. They propose that further research needs to be conducted about whether this results from skewed environmental justice in the region of study or if it results from the preferred types of sports facilities amongst the population in low-income areas.

GIS is a valuable tool when measuring accessibility since it allows for the visualization and analysis of spatial data. Multiple studies use GIS when researching accessibility but in various ways. Bueno et al. (2020) aims to use GIS tools to assist in managing sports facilities and sports programs. The data used was public swimming pools and socioeconomic variables. The results showed that the different swimming pools have specific targets of different socioeconomic groups of people that visit them. Therefore, they can conclude that using GIS in this manner can help policy-building in the sense that the GIS tool can unveil which sports program to prioritize in each facility, depending on the aim of the sports program. The method used in the study was partly mapping out where
and the sizes of the swimming pools, the condition in which the swimming pools are, and what socioeconomic characteristics the area which the swimming pool is in has.

There are multiple studies on accessibility to sports facilities that are intertwined with socioeconomic factors such as age, gender, ethnicity, and domestic/foreign background. Regarding the term accessibility, most studies have defined it as the physical distance from point A to point B. Some studies use the number of sports facilities within a defined area; others use accessibility as a measure of how prepared the facility is for individuals with physical disabilities (Bueno et al., 2020; Higgs et al., 2015). Some studies have emphasized different types of sports facilities, and the classification differs among them. However, some are comparisons between outdoors/indoors-, private/public-, formal/informal- and spontaneous/organized sports facilities. (Higgs et al., 2015; Panter et al., 2008; Persson & While, 2012).

### 3.4 Organized sports and impact on individuals in socioeconomically challenged areas

Ekholm (2018), Bailey (2005), and Behtoui (2019) discuss the positive impact that organized sports and sports activities can have on individuals that are at risk for antisocial behavior. Displaying why organized sports and sports activities are important factors to include in socioeconomic challenged areas. Spaaij (2009) and Coalter (2015) grant a critical perspective to the discussion about sports activities and social well-being, meaning that the activities must be formed to allow positive change, discussing that just offering sports activities is not enough. This helps me analyze the retrieved data and understand how sports may impact the participants in organized sports.

Research conducted internationally has debated the potential impact of sports activities on individuals living in socioeconomically disadvantaged areas, and whether it is reasonable to expect sports to take responsibility for this. Some research has criticized the idea that children and young people can improve their living conditions and contribute to society through sports alone (Spaaij, 2009). It is argued that the social changes brought about by sports are not enough to address deeper societal issues like segregation and socioeconomic vulnerability (Coalter, 2015). However, David Ekholm (2018) partially agrees with this criticism and identifies four areas where sports activities can contribute to change: the self, connection, place, and future. By the self, Ekholm (2018) refers to an individual's ability to be independent and make decisions aligned with societal interests, including resisting peer pressure to engage in criminal activities. Connection refers to the creation of moral bonds and relationships between individuals and various societal actors, which can arise from participation in organized sports. This can help reduce anxiety, tensions, and lack of cohesion, providing individuals with a supportive context to live and function. Therefore, social change through sports is based on empowering and activating the self, fostering connections,
and considering the geographical location or place. Sports can be a targeted intervention aimed at specific geographic areas where societal problems are concentrated. Thus, sports can serve as a focused effort directed at a particular area. The final target area for change is the future, where potential changes through sports activities contribute to society over time. It is important to note that the effects of sports activities may take time to generate this kind of societal value.

Spaaajj (2009) argues that simply offering sports activities is not enough for positive societal development to occur through targeted efforts. The activities provided should also adopt a personal and social developmental approach, enabling individuals to benefit from the transformative potential of sports.

In a study conducted by Bailey (2005) in the United Kingdom, the relationship between school sports, physical activity, and social inclusion is explored. The findings suggest that engaging in sports and physical activity can significantly improve self-esteem and self-confidence, while also promoting social, academic, and cognitive development. Researchers, including Bailey (2005), emphasize that participation in these activities enhances communication skills, allows individuals to assume various social roles, and fosters valuable qualities such as patience, respect, and collaboration. Additionally, the positive physical effects of these activities, such as increased energy levels and overall well-being, act as protective factors against depression and anxiety (Bailey, 2005).

In a Swedish context, research conducted in Sweden reveals that participating in activities outside of school hours can positively influence academic performance. The study focuses on both organized activities supervised by adults and more spontaneous forms of engagement. It highlights the association between these activities and promoting social inclusion, social development, and academic achievements. Factors such as socioeconomic background, ethnicity, and gender influence participation in these activities. The findings suggest that children and youth from higher socioeconomic backgrounds tend to engage in these activities to a greater extent compared to their counterparts from lower socioeconomic backgrounds (Behtoui, 2019).

3.5 Segregation in organized sports

Tavolara (2020), Ekholm (2019), Flensner et al. (2021), Höglund and Bruhn (2022) and Fox and Paradies (2020) have studied segregation in organized sports, differing from sports-based interventions, reasons for the choice of sports, integration through sports and barriers that act excluding. I relate to these studies not only as a background but as a framework for what has been concluded, guiding my interpretations of the interview results.

Research on segregation and physical activity is a common subject in academia. There are significant differences in the scope of the studies. Studies about differences in what
sport to choose related to the socioeconomic background in the USA show differences regarding the social and cultural context in which individuals reside. The results show that media and historical segregation relate to how youths in America choose one sport over another (Tavolara, 2020). Studies made in Sweden explore sports-based interventions as a tool for suburban integration. Some do case studies on different approaches to these sports-based interventions, while others discuss the interventions' impact on the participants.

Further, the results show that sports-based interventions can serve as an arena for bonding and social relations among participants and leaders/coaches. However, the authors criticize the means of the intervention, which is social inclusion and integration. Here, the authors argue that the aim of the interventions unknowingly has been “adaptation” rather than integration. There are also results from studies that state that leaders and coaches successfully have been bonding with participants, stating that participants have enhanced feelings of trust, despite racism in society and that the activities are safe spaces for them to be physically active in (Ekholm, 2019a; Flensner et al., 2021; Höglund & Bruhn, 2022). In studies made on segregation in organized sports clubs, there are reports of participants' experience of barriers based on ethnic, racial, religious, and linguistic backgrounds. The case study of an Australian organized football club highlighted that there are experiences of disproportionate exclusion regarding organized sports clubs based on ethnicity, race, and gender. The study states that organized sports clubs can uphold institutionalized barriers of segregated nature, such as the exclusion based on ethnicity, race, language, and religion. Here, it is not one person who act in a racist manner, but rather it is an institutionalized problem that needs to be addressed (Fox & Paradies, 2020).

### 3.6 Accessibility for girls with foreign backgrounds in organized sports.

Höglund and Bruhn (2022), Ekholms et al. (2019), Claesson, (2010), Kassman and Neck, (2021) and Ekholm et al. (2022) discuss the including and excluding conditions that girls living in socioeconomically challenged areas face in organized sports. The including and excluding conditions will be part of the framework of social accessibility that this study will use as a way of understanding the low participation amongst girls with foreign backgrounds in organized sports.

Höglund & Bruhn (2022) has researched sports as a tool for suburban integration. The study researches sports initiatives to integrate youths residing in socioeconomically challenged areas. The initiative is called midnight football and is a semi-organized football match that does not require any membership and is free for all participants. The activities are scheduled from around 9 pm to midnight; the time is set at this time in order to activate youths in this area and to prevent them from doing anti-social
activities. By offering activities at this time, Midnight Football aims to offer a safe
space for youths to interact with each other positively, meet adult role models that are
local, and create meaningful relationships that create prosocial behavior. There are
several studies regarding midnight football. Among them are Ekholms et al. (2019),
which analyzes why the absence of girls is so tangible even in a sports-based initiative
whose cause is to include youths. Most of the studies are made qualitatively, studying
the experiences of organized sports or physical activity from girls with foreign
backgrounds or their parents. The quantitative studies, using surveys as a method, focus
on participation, type of sport, and reasons why they are not participating in sport,
among other things. Some results show that the economy is a barrier for girls with
foreign backgrounds due to high membership fees. The parents refer to organized sports
as being somewhat expensive, time-consuming, and demanding because they demand
that parents are involved as well. Parents referred to girls having more chores to tend to
at home and that boys were more suitable in sports due to their “high levels of energy”
(Claesson, 2010; Kassman & Kneck, 2021).

Ekholm et al. (2022) describes why there are fewer girls with foreign background from
segregated areas in organized sports by discussing the inclusive and exclusive
conditions in organized sports. By interviewing coaches and girls with foreign
backgrounds that are involved in a project that aims to increase participation, Ekholm et
al. (2022) have found conditions that can act both inclusive and exclusively. The
exclusionary conditions work both ways; the project, in which participants are solely
girls with foreign backgrounds, acts exclusionary for a girl who has Swedish-born
parents; in the same way, a sports club with mostly girls with Swedish-born parents acts
exclusionary against girls with foreign backgrounds. The exclusionary conditions are,
amongst others, the experience of otherness, being the only one that lives in a
segregated area, not having the same equipment as the other players, or looking
different from everybody else. Some girls report that traditional sports clothes, i.e.
shorts and T-shirts, can be problematic for parents, wanting their children to dress
appropriately and that it is important to wear a long skirt, so the girls do not draw too
much attention towards themselves.

Ekholm et al. (2022) have highlighted several organizational conditions crucial for
enabling girls with foreign backgrounds to be included in organized sports. The
inclusive conditions contribute to shaping girls with foreign backgrounds participating
in the sports-based project. Ekholm et al. (2022) display the conditions that focus on
organizing activities exclusively for girls, providing them for free, incorporating
flexibility in design and participation, allowing participants to wear any clothing they
prefer, not treating the sports activities as competitive sports, and incorporating
compensatory elements such as offering participants suitable clothing for their
involvement. These conditions are designed to facilitate inclusion and eliminate some
barriers to participation. The inclusive conditions are formulated in response to potential
exclusion conditions, many of which are parents' attitudes toward girls' involvement in sports. One of the issues for the parents is male coaches and having boys around the practices. By practicing indoors, isolation is key for the parents where their children are protected from the surrounding spectators. Going to and from practice is also a barrier to participation, parents, being concerned for their children's safety, do not want them to go to practice if they live in an area that has problems with drug abuse or violence. Establishing contact with the parents, informing them about their organization, and gaining trust is a way to decrease the parents' concerns.
4. Methodology

It is essential to understand where the researcher is writing from. Being transparent about one’s positionality grants the reader an insight into the researcher’s perceptions and position concerning the study, thus granting the ability for the reader to interpret how that may affect the study (Panelli, 2004). To address the positioning of my research I will discuss Sale’s et al. article on mixed methods research as well as Bryman (2006; 2016), Holtz and Odağ (2020) and Flick (2018).

Flick (2018) describes epistemology as the way one believes knowledge is produced, and several branches have different understandings of how this is done. Sale et al. (2002) states that traditionally, quantitative research is based on a positivist or post-positivist epistemology, while quantitative research is based on an interpretive or constructivist epistemology. Sale et al. (2002) claims that positivists say that science is done by empirical research where phenomena can be reduced to empirical indicators. The empirical indicators are what a positivist would regard as the truth. Moreover, epistemologically, Sale et al. (2002) states that a positivist would regard the researcher and the phenomena being researched as independent entities where the researcher does not influence the research subject. Ontologically, through which lens the world is being seen, the quantitative paradigm states that there is only one objective truth, independent regardless of human perception (Sale et al., 2002).

The qualitative paradigm is based on interpretivism and constructivism, where its ontological positioning would state that truth is based on one’s construction of reality, meaning that there can be multiple realities as well as truths that are constantly changing since reality is a socially constructed phenomenon. In contrast to the positivist epistemological positioning, the researcher and the research subject are interlinked and influence each other. Therefore, the findings are created mutually within the context of the situation (Sale et al., 2002). Doing mixed methods, Sale et al. (2002) state that the researched phenomenon cannot be the same across methods. Both approaches may describe the phenomena identically, but the difference in epistemological assumptions causes the descriptions to mean different things. The preferred way of conducting mixed methods research, according to Sale et al. (2002), is to achieve complementary results, using the strengths of one approach to enhance the other. This method is by Bryman called enhancing (Bryman, 2016). Using enhancing, one considers to have two separable phenomena independent of one another. Enhancing is, according to Bryman’s research on mixed methods research, the most common one to use (Bryman, 2006).

However, there are mixed opinions regarding the matter in Holtz and Odağ’s (2020) article on critical rationalism. Holtz and Odağ (2020) discuss how philosopher Karl Popper has wrongfully been deemed positivist, when his approach according to them is similar to epistemology that is in line with qualitative research i.e. constructivist.
epistemology. Holtz and Odağ’s (2020) regards that Popper's epistemology is applicable to mixed methods as they advocate for a critical rationalism that can serve the purpose of both qualitative and quantitative research approaches. Holtz and Odağ (2020) states that according to this view, there are no mere facts and that every observation is at some level theory driven. Regarding mixed methods, Holtz and Odağ (2020) suggest that quantitative and qualitative methods conducted through triangulation, constitutes reality perspectives that the methods themselves construct. Thus complementing one another by capturing a more elaborate picture of a phenomenon than they would have by themselves. Supporting this argument, as Husserl argues (1970), the mathematically understood space-time world of the natural sciences has its roots in the lifeworld of everyday experience. “Objective time” and “objective space”, thus, are not divorced from everyday experience but rather abstractions based on the subjective experience of space and time. Moreover, the experience of space and time are an intrinsic part of the lifeworld. This implies that a quantitative description of the world in terms of locations in space and time refers to phenomena that are also a part of the subjectively experienced lifeworld. Because of this, a framework like Hägerstrands’s time geography can, as is done in my study, be used as a framework both for analyzing accessibility using a quantitative approach and for analyzing accessibility on the basis of qualitative interviews that discuss how 10-20-year-old girls with foreign backgrounds can access sports facilities. Both approaches provide information about the same life world, and by using both a quantitative assessment and a qualitative assessment we gain a fuller understanding of the phenomenon. Having this in mind, one could combine the two approaches when researching a phenomenon, gathering different data sources to gain a more complete understanding of it. Bryman (2016) calls this method triangulation. Flick (2018) describes multiple forms of triangulation, but the relevant form for this study is the triangulation of methods. Triangulation of methods is a way of understanding phenomena by using multiple methods, thus mitigating the weakness of one method by “covering” it with the strengths of another method. The weakness of a qualitative method can be “covered” by the strengths of a quantitative method, and vice versa.

For this study, my methodological assumptions align with the triangulation approach. My rationale for this choice is that I am researching a phenomena that is multifaceted. I argue that the quantitative data collected is intertwined as the reality in which the qualitative data is framed by. Further, the critical rationalism that Holtz and Odağ discuss as an alternative where remaining critical towards one’s research, and understand that it is fragile.

This study seeks to study how accessibility is to sports facilities for young girls with foreign backgrounds and what role accessibility plays in their participation. Exploring different aspects of accessibility, I must remain critical towards the results and my predefined conceptions of accessibility. My epistemological positioning in, for example, that there is a decline in female participation in organized sports is something
I believe is a product of segregating structures rather than a biologically or culturally bound reason. To understand the phenomena, we must understand the context in which they are residing. The context can be socioeconomic status, ethnicity, race, or gender, amongst others. Only when we can understand the context in which the object resides can we understand their actions.

Bryman (2016) describes this argument as how social phenomena can be seen as social constructions. In this study, I am interested in the experiences and their reality.

Understanding the spatial accessibility, a constructivist epistemological assumption is, in Holz and Odağ’s (2020) words, possible, as the quantitative and qualitative approaches are overlapping and not fixed.

As a white cis-male living in one of the most privileged countries in the world, writing a master’s thesis, and having a professional sports career, there are things that I, as a researcher, need to be aware of. My reality is not everyone else’s, and for some participants in this study, we may live completely different lives and have different views on the world we live in. When discussing a phenomenon, we can have widely different views on it. Therefore, I must be aware of this possible discrepancy of worldview and be open to the informant’s perspective on things, as well as be aware that I, as a researcher, may influence the answers from the informants because of my position. Where I am writing from, as Panelli (2004) would put it, I argue is part of the reason why I chose this subject for the study. Coming from a bachelor's in sociology, studying societal processes, gender, ethnicity, class, intersectionality, and segregation, among other things, as well as my professional sports career, has led me to gain interest in exploring the process in which young girl’s participation in organized sports is lower than other groups. Ontologically, I would say that my positioning is somewhat feminist, which I would argue is interpretable in the topic and aim of this study; to explore and understand a group of people that is disadvantaged in a given context that is rather male-dominated, hopefully contributing to empowering their positions in society.

As has been stated, my epistemological and ontological assumptions as well as my positioning in relation to my study will help interpret the following chapter of methods and give insight in the methods chosen for this study.
5. Method

The optimal choice of methods for answering the research questions is to use a research design that is mixed methods. To answer the first research question, I will use a quantitative approach to measure the accessibility to sports facilities. To answer the other research questions, I will use a qualitative approach to understand the different aspects of accessibility if it matters for participation amongst girls with foreign backgrounds, and how the coaches for 10-20 years old girls with foreign background experience that they are being prioritized. However, the results will be integrated and thus, both approaches will contribute to the results. Further, to prevent wrongful interpretation, I will operationalize accessibility, provide an overview of what data is used and how it is gathered, and explain why I have decided that mixed methods are the most optimal research design for this study. Further, the following chapter will provide insight into the methodological assumptions and the workflow used to produce the qualitative and quantitative data, as well as a rationale for why the methods chosen are the optimal choice for this study. Moreover, a brief chapter regarding the use of Chat-gpt is included.

5.1 Chat-GPT

The use of Chat-gpt has been used in several ways in this study. Its main use has been for translating transcriptions from Swedish to English and summarizing parts of articles in order to save time when choosing what articles that are of interest or not. Further, in order to get an overview of a phenomenon, for example, the theories of Hägerstrand, I have used Chat-GPT to get an overview on his work, in order to get a fuller understanding of his theories before reviewing literature on the subject.

5.2 Quantitative method

The quantitative method consists of maps made in GIS, in order to select areas of interest based on socioeconomic population composition as well as comprehend the proximity to sports facilities. The data used will be discussed in 5.5.

5.3 GIS

GIS, or geographical information systems, is software created for spatial data analysis. There are many different GIS software; in this study, ArcGIS Pro is the software that I feel most comfortable with and the software that I have the most experience using (Ballas et al., 2017). To see how the accessibility is for the group of interest, I will use ArcGIS Pro as a tool to acquire this knowledge. ArcGIS Pro enables me to visualize spatial data and analyze the data to understand the accessibility to sports facilities in Stockholm and Huddinge municipality (Esri Sverige, n.d).
5.4 Selection of areas

Since I want to answer how the accessibility to sports facilities are for a particular group (girls with foreign background), I need data on socioeconomic characteristics that are spatially referenced to the Stockholm city area. The socioeconomic data provides an understanding of the areas, showing the socioeconomic composition of the population. On that basis, I can derive where the group of interest most likely resides. Having an understanding of which areas that are of interest for this study, I can now reach out to potential interviewees, knowing that they will have excellent knowledge of the group of interest. Further, based on the sports facilities that reside in areas with the socio-economic characteristics in which the group of interest lives, I make a sample based on the findings. In the sampled areas of interest, I will conduct a network analysis to measure the accessibility in terms of proximity to sports facilities. The network analysis will answer the first research question after selecting sports facilities of interest, i.e., sports facilities that host practice for basketball clubs with participating girls. The data that has been used, the workflow, including the network analysis will be treated in the following sections.

5.5 Data

The indicators used for the population composition are derived from 2016 register data, focusing on socio-economic and ethnic segregation. The indicators chosen are shares of the inhabitants of a neighborhood with/that are; tertiary education, high income, employment, social assistance, at risk of poverty, non european immigrants and/or european immigrants. Through hierarchical clustering techniques, residential areas that have been put in grid cells have been assigned one of ten cluster types (Kawalerowicz and Malmberg, 2020). For a more detailed understanding of the process behind the cluster types, I recommend reading Kawalerowicz and Malmbergs (2020) report.

The cluster types are;

**Rural town diverse**
- High share of non-European immigrants
- Above average level of social assistance
- Relatively low employment levels

**Rural town adjacent**
- Adjacency to low employment
- High levels of social assistance
- Economic disadvantage is linked to diversity

**Rural town working class**
- Average employment levels
- Low education levels
- High levels of European immigrants

**Rural homogenous**
- Low share of both European and non-European immigrants
- Average levels in the other indicators

**Urban diverse**
- Highest share of non-European immigrants
- Second highest share of European immigrants
- High levels of economic deprivation

**Urban adjacent**
- Low share of immigrants at small scales, but high share at larger scales
- Both economically deprived and affluent, depending on scales
- Due to being adjacent to urban diverse neighborhoods, there are high contrast over scales

**Urban homogenous**
- High levels of employment
- Low shares in non-European immigrants, risk of poverty and social assistance
- Strong labor market attachment

**Urban academic**
- High levels of tertiary education
- Strong labor market attachment
- Low share of European immigrants
- Third most diverse cluster regarding non-European immigrants
- 4th out of 5 most economically deprived amongst the urban clusters

**Urban elite**
- Highest share of tertiary education and income
- Low levels of poverty, social assistance and European and non-European immigration.

The data used primarily for network analysis. Provided by Stockholms Stad, open geodataportal, as well as Lantmäteriet.

**Stockholms Stad open geodataportal**
Containing the borders for district areas in Stockholm municipality. The district areas
are smaller areas than city district areas; several district areas are included in one (1) city district area.

SBK Citymap - City district council areas (Stadskarta - Stadsdelnämndsområden). Updated 2022-10-31.
There are 13 city district areas in Stockholm municipality that are divided into smaller district areas.

Lantmäteriet
The data that was provided from Lantmäteriet contained:
Property map: Built up areas. Updated 2021-08-21.

The data of relevance from the property map was the data on buildings, amongst the buildings, sports facilities were labeled separately. The data of relevance in the general map was data on the municipal borders for both Stockholm and Huddinge municipality as well as the land/water masses.

Trafikverket
Road data for transport planning - Updated 2022-07-01.
The data of relevance in this dataset was the data on walking and bicycling roads.

5.5.1 Data limitations
Regarding the data about cluster types. Kawalerowicz and Malmberg (2020) states that there are limitations related to the general nature of the clustering, not considering each grid-cells cluster type, but rather the most representative in the area. Therefore, I argue that in a city like Stockholm, there are implications drawing conclusions about the socioeconomic classifications. In the results, Map 1. displays that in the city center of Stockholm, Urban academic is a dominant cluster type. However, I find it hard to believe that the 4th least economically affluent urban cluster type is representative of the area. This is an example of that the data should not be considered as the truth but rather as one way of depicting the socioeconomic landscape of Stockholm and Huddinge municipality. Also, I argue that for this study, using the data as a means of exploring where basketball clubs having girls with foreign backgrounds are, the data is viable.

5.6 GIS workflow
Ballas et al. (2018) states that using statistical information on an aggregated areal unit, such as socioeconomic characteristics in the suburbs of Stockholm. There are implications on interpreting the results. The term ecological fallacy is a common limitation when presenting these types of data since it portrays the whole population, and not each individual. An area that has a majority of people that for example are very
affluent, often also have individual households that are economically deprived and vice versa. With ecological fallacy in mind, presenting spatial socioeconomic data is a great way to provide suitable characteristics of neighborhoods (Ballas et al., 2018).

**Division of socioeconomic and ethnic segregation maps**

Kawalerowicz and Malmbergs (2021) report on classifications systems for residential areas that are based on various population compositions at different scales; provide the data for the maps. For a more detailed description of the data, I refer to chapter 5.5.

1. **Data collection**
   - Data from Kawalerowicz and Malmberg (2021), and Lantmäteriet provided population composition and administrative borders as well as buildings. The data on population composition was downloaded in an Excel-format, so in order to use it in a GIS-software, it had to be converted in ArcGIS Pro using the tool *Excel to table*. Thus the data is now in a table in ArcGIS Pro.

2. **Data processing**
   - The data being in a table, had aside from the population composition characteristics, coordinates for each datapoint. Thus, I could use the tool *XY table to point* in order to georeference the data spatially, making it visible in a map. The data had different projected coordinate systems, by using *Project*, I was able to change it so that everything was projected in Sweref 99TM.

3. **Visualization**
   - Adding administrative borders and buildings, as well as providing a interpretable symbology to the categories of the population composition was done before visualizing it altogether in layout view.

**Network analysis maps**

Network analysis is an analysis that is used for studying flows and transportation on road networks. A common use of network analysis is to measure the geographical accessibility, using service areas that measures the distance or time it takes to travel to/from a, for example, hospital or school (Harrie & Eklundh, 2020). My network analysis is based on the spatial accessibility to sports facilities using the walking paths and bicycle road network to calculate the spatial accessibility by walking. Bryman (2016) suggests that in order to increase the replicability of the quantitative part of this study, that a thorough exposition of the workflow is recommended. Therefore, the work conducted in GIS will be treated, however, since the work in GIS has been quite extensive, for a more detailed understanding of how the analyses are made, I recommend to visit Arcgis Pros website to learn more. Two different types of maps were created for three different areas, therefore, I have divided the workflow for
creating the network analysis and for displaying the socioeconomic features of the areas.

1. Data gathering
   - Collecting data from Lantmäteriet and Stockholm city open data portal. The data collected was data on buildings, roads, administrative borders and land use. A base map that is integrated in the software was also used. The data was uploaded in Arcgis Pro into a new map.

2. Data processing
   - Starting by clearing the data from the unnecessary data, selection by attribute was used, in the attribute table, selecting the features of interest in each layer, exporting them to new feature layers. The data can sometimes be faulty, thus some data have been fixed with the edit feature tool. Some data have been delineated by using the tool clip in order to contain the data within the boundaries of the study area. Also, the data can be divided into different layers, thus, some data have been joined to the same feature layer using the tool join.

3. Set up network
   - Since the data has been processed and treated, it is time to set up the network. First, I created a network database and exported the data on walking paths and bicycling roads and included it in the database. Setting up the network, for the restrictions and mode of travel, walking was used. Neither restriction was used since the roads included approved walking. The walking pace was set at 5 km/h. Both distance and time were included since I wanted to include the time that it takes to walk to the sports facilities rather than the distance it is.

4. Create network
   - Creating the network, and using the service area as the type of analysis. I imported the sports facilities (transformed as points using polygon to point feature) to the facilities layer in which the network analysis will calculate the distance from.

5. Run analysis
   - The analysis provided buffers around the sports facilities, using the imported road network. In the symbology section, I could select the breaks to the buffers which were set to 10 minutes, 20 minutes and 30 minutes.

6. Visualize
   - In the layout view I visualized the results and created maps for the areas of interest. Starting with an overview of the whole study area, then zooming in on the smaller areas, adding administrative borders, to grant a more detailed understanding of the areas.
5.7 Qualitative method

To answer the research questions about how different aspects of accessibility matter and if it is related to participation for girls with foreign backgrounds, a qualitative method is an optimal approach. The qualitative approach is helpful when the aim is to develop an understanding of and analyze self-lived experiences connected to these experiences. This is the basis on which I choose to use a qualitative method. The data collected in the qualitative part of this study is semi-structured interviews which, according to Bryman (2016), is a proper tool when researching experiences and emotions which require detailed answers that would be difficult to measure and analyze quantitatively, such as a survey. The interviews have been recorded, which according to Bryman (2016), provides valuable insights into addressing the limitations of memory in interview research, thus mitigating errors and false interpretations that may arise during the data collection process. By utilizing recording devices during interviews, researchers can enhance the accuracy and reliability of their findings. This is particularly helpful when transcribing the data, as endless options are now available for reviewing and analyzing the interviews. The ability to review recordings offers several advantages. Firstly, it allows for a more thorough examination of the data collected. Researchers can revisit the interviews multiple times, enabling them to catch subtle nuances, identify patterns, and extract deeper meanings that might have been missed in real time. The recordings serve as a valuable resource for data analysis, ensuring that no valuable information is overlooked or misunderstood (Bryman, 2016; Dalen, 2008).

Dalen (2008) discusses the usefulness of programs that can slow down or transcribe interviews; these provide further convenience and efficiency. These tools save time and contribute to transcription accuracy, reducing the likelihood of errors or misinterpretations during the analysis process. Researchers can rely on these technological advancements to assist them in capturing and documenting interview content effectively. Recording interviews also have significant benefits for the research community as a whole. Other scholars and researchers can access the interview recordings, promoting transparency and facilitating collaboration. They can listen to the interviews, gaining direct exposure to the participants' voices, expressions, and tones. This accessibility allows for a more comprehensive evaluation of the data and provides opportunities for critique, validation, and the generation of new insights. By sharing interview recordings, researchers foster a sense of openness and peer engagement, enhancing the overall quality and impact of the study (Bryman, 2016). However, in this study, the recordings will not be shared so as not to break the interviewees' trust, and therefore, I will be the only person that has access to them.

Furthermore, Bryman (2016) promotes using recording devices to relieve the burden of extensive note-taking during interviews. Researchers can be more fully present and engaged in the interview process, actively listening and observing without needing to transcribe every word. Instead, they can focus on capturing additional details that might
not be evident in the recordings, such as facial expressions, nonverbal cues, or spontaneous follow-up questions. This complementary approach to note-taking ensures a more holistic and nuanced understanding of the interview context and enriches the overall depth of the data collected.

Determining the appropriate sample size is a critical consideration in research design, and Bryman (2016) emphasizes the importance of this aspect. While it may be challenging to establish an exact sample size beforehand, as circumstances can arise that necessitate adjustments, there are guidelines to follow. The sample size should ideally be determined based on the number of comparisons and the diversity of the studied groups. It should be sufficient to yield unique and meaningful insights. If the data begins to repeat itself or does not contribute significantly to the discussion, it indicates that the sample size may be too large. Finding the right balance ensures that the research findings are robust and comprehensive and provide valuable contributions to the field. The sample size reflects this for sports clubs that fit within this scope. The respondents have expert knowledge that is unique to their field, and that is also the reason for a smaller sample size since there are rather similar answers amongst the respondents.

A purposive sampling approach has been issued to reach out to the relevant participants. According to Bryman (2016), purposive sampling is a sampling approach that seeks participants with knowledge about the research field that the researcher aims to gain knowledge within. The approach is a strategic way to find relevant participants effectively. The initial contact with the participants includes different forms of approaches. Contact via email, phone, Instagram, and Facebook has often been used; potential participants have often ignored emails and been called via phone. When a number is unavailable, a Direct Message via Instagram and Facebook is sent. After informing them about the study and their potential role in the study, we discussed when and where to meet up; I tried to make it as easy as possible for them by proposing that we meet at a place of their choosing and offering a digital meeting.

All initial contact with the participants has been in a manner that is proposed by Vetenskapsrådet (2017). The contract contains information regarding the study, what the interview will be about, what my responsibilities as a researcher are, and that they can opt out of the study whenever they want and be anonymous. The contact has resulted in deciding where and when the interview will be held and under what circumstances.

5.8 Environments

Two out of three interviews were conducted on the premises where basketball activities have been held, one after a game and one in the sports facility of the basketball club. The third interview was conducted in the sports club's office, located in an office building where the basketball club resides. According to Springgay and Truman (2018),
choosing the right interview location is essential to ensure the participant's comfort while minimizing the impact of external influences. In their study, participants had the autonomy to select their preferred interview setting, and the interviewees had full autonomy to select their locations.

The interviews were recorded through a recording application on my mobile phone. The name of the recording did not contain anything that could be linked to the respondent. After the recording was uploaded to my personal computer, it was deleted from my phone.

The transcription was initially made by a transcription program called Good Tape. Good Tape ensures that the transcription is fully encrypted, and after it is downloaded, the transcription is removed from their database. The transcription is then stored in google drive and removed from my computer's hardware. As Braun and Clarke (2006) suggested, the transcription has been revised after the initial transcription to correct mistakes made by the software.

5.9 Participants in this study
All three interviewees, Jonas, Thomas and Yacouba have a similar role in their respective clubs. They have overall responsibilities in the club, such as the founder, club director, or sports manager. They are all currently coaching teams in the organization and have great insight into all the teams in the organization. They appear engaged and committed to their role as well as humble. Jonas and Thomas have both been affiliated with the Swedish basketball confederation and all of them have been playing basketball for many years. Jonas and Thomas are both in their fifties while Yacouba is in his early thirties.

5.10 Semistructured interviews
For this study, a research design employing semi-structured interviews has been chosen as the most appropriate method for gathering qualitative data that aims to capture the detailed and subjective experiences of the interviewees. According to Bryman (2016), semi-structured interviews are particularly well-suited for qualitative research, aligning with the study's feminist epistemological perspective. This approach strikes a balance by being less invasive than ethnographic observations while facilitating a high rapport between the researcher and participants. Semi-structured interviews offer several advantages over other interview formats in the context of this study. Unlike unstructured interviews, which lack a clear framework, and structured interviews, which limit the scope of responses, semi-structured interviews provide a middle ground. A semi-structured interview offers a certain degree of guidance to participants, ensuring they are not responsible for steering the interview smoothly. Additionally, the flexibility
of semi-structured interviews enables the inclusion of follow-up questions and prompts, facilitating detailed and in-depth responses from the participants. When conducting semi-structured interviews, Bryman (2016) and Dalen (2008) suggest that researchers should use an interview guide, a list of questions related to specific topics of interest to the researcher. In line with this suggestion, the interview guide for this study will be designed to cover the relevant themes while allowing room for exploration and adaptation based on individual responses. While maintaining consistency in the way questions are asked, the interview guide will seek to minimize variations across respondents to ensure the reliability and comparability of the data obtained (Bryman, 2016; Dalen, 2008). Dalen (2008) proposes that the first couple of questions should be light because they will not trigger deep emotions. By leading with lighter questions on the periphery of the central themes to be discussed, the interviewee has a better chance of feeling comfortable.

It is worth noting that the estimated duration for each interview is expected to range between 45 minutes and one hour, although this timeframe may vary depending on individual participants. Dalen (2008) states that to ensure the interview guide's effectiveness and address any potential issues, a pilot interview will be conducted. This pilot interview will be a valuable opportunity to test the questions, evaluate the interview length, and identify any areas that may require further clarification, refinement, or removal.

After completing the interviews, it is essential to transcribe the recorded conversations accurately. As emphasized by Bryman (2016), a detailed transcription is crucial in capturing not only the words but also the "non-words," such as hesitations or expressions, which might hold valuable contextual meaning related to the topics discussed. If requested by the respondents or caregivers, the transcript can be shared; this honors their participation while the researcher maintains transparency towards the interviewee.

Regarding data analysis, this study will employ thematic analysis. By thoroughly reading and re-reading the interview transcripts, the researcher will identify recurring codes that hold significance within the data, as suggested by Braun and Clarke (2006). These codes will then be organized into themes and subthemes, forming the basis of the analysis. Thematic analysis is particularly suitable for this study as it allows for the structuring and identifying shared experiences and narratives within the non-numerical, detailed data collected. The resulting themes and subthemes will serve as the foundation for deriving or applying theoretical frameworks that enhance our understanding of the research questions at hand (Bryman, 2016, Braun & Clarke, 2006).

In conclusion, the chosen research design of semi-structured interviews, guided by an interview guide, aligns with the study's qualitative objectives and feminist
epistemology. This approach enables a detailed exploration of participants' experiences while fostering reciprocity between me and the interviewees. The subsequent thematic analysis of the transcribed interviews will contribute to the generation or application of relevant theory, further enriching my findings.

5.11 Ethical considerations

In this study, some ethical considerations need to be addressed. To interview people that have given their time and knowledge to you is something that a researcher should be thankful for. Depending on the type of position of the informant and/or the context in which the interview is, one has to be respectful of the information provided. Also, respecting the agreed-upon confidentiality that the informants have been informed about before and after the interview is crucial. The informants have been granted the possibility to remain anonymous, stop the interview at any time, and withdraw their participation after the interview. Since the informants are over 18, a letter of consent from supervisors has not been needed. However, a spoken consent agreement has been established as proposed by Vetenskapsrådet (2017). There may be some sensitive information since some of the questions are regarding minors' traveling habits and participation in practices. Therefore, the team and exact age will not be exposed as a safety measure. Instead, it will be generalizable so that the exact team will not be recognizable by reading this study (Fischer et al., 2008).

5.12 Limitations of method

The limitations of the methods used are related to the quantitative part of this study. Regarding the data on sports facilities, I was forced to make a delineation in what to consider a sports facility in order to be consistent in my analysis. The data from the property map had different labels, providing information of what type of building each building was, this was the case for sports facilities. However, it is common for sports clubs to use the schools facilities which often also have sports courts on the school premises. However, what schools that had sports courts or not were not labeled, thus some of the facilities that the sports clubs use for practice are not in the analysis. However, I argue that the analysis is useful in showing the spatial accessibility to sports facilities; whose main purpose is serving the organized sports clubs. Ideally, the facilities that are on school premises would also be included.
6. Results

This mixed methods study has generated both quantitative and qualitative results. The quantitative results are in maps, and the qualitative results are in data from semi-structured interviews. The results are integrated as the quantitative data shows the conditions in which the respondents reside, granting a broader, more profound understanding of the environment in which they describe their reality. To illustrate the result in a meaningful, comprehensible manner, first, an overview of Stockholm and Huddinge municipality will be presented. By doing this, I provide a benchmark for the data focused on smaller areas, making comparisons and interpretations of these results more accessible. Secondly, the areas of interest are displayed together with a summary of the interviews, which gives a sense of place to the interviews.

This study aims to explore how different aspects of accessibility on a municipal level and on an organized sports level relate to 10-20-year-old girls with foreign backgrounds participating in organized sports and how it can be adjusted to attract the group better. The specific research questions were:

1. How is the accessibility to sports facilities for 10-20-year-old girls with foreign backgrounds in Stockholm and Huddinge municipality?

2. Does accessibility of sports facilities matter for 10-20-year-old girls with foreign backgrounds in the Stockholm and Huddinge municipality?

3. How do the coaches of 10-20-year-old girls with foreign background experience that they are prioritized?

4. How can the theoretical framework of time-space geography be applied to studies of accessibility to sports facilities for 10-20-year-old girls with foreign backgrounds

6.1 Stockholm and Huddinge municipality

Map 1. is the basis for the selection of areas in which the interviewees were selected. By exploring the population composition regarding socioeconomic status in the area, I could make a selection of areas in which I collected my qualitative material. Based on Map 1. Tensta, Spånga and Skogås were selected as areas of interest since the population composition corresponds with the characteristics I was interested in.
Map 1. Classification of neighborhood characteristics regarding socio-economy and ethnic diversity.

Map 1. displays the segregating features within each city district area of Stockholm and Huddinge municipality. The surrounding areas of the city center are populated by an urban, diverse population, representing a large-scale migration in the area. In the center of Huddinge, displayed by the bright green dots, is a cluster of rural town working-class population whose key characteristic is a population with low income and a substantial amount of EU migrants. In the city center of Stockholm municipality, urban academics, whose key characteristics are high education with a rather low income compared with the other urban clusters, are present and are surrounded by the urban elite, whose key characteristics are highly educated people with high incomes. In the northwest part of Huddinge, a relatively large area is populated by a homogenous urban population whose key characteristic are medium education levels with high income. However, Huddinge municipality is dominated by an urban, diverse population; this pattern is the most common in the three most northern city district areas and the most western in Stockholm municipality. The adjacent urban population, whose key characteristic is high contrast over scale regarding income and share of immigrants, is concentrated in the city district areas to the north of Stockholm municipality, which is interpreted as a clear difference in population in the area.
Map 2. Network analysis on walking and bicycling roads to sports facilities for a pedestrian walking at a speed of 5km/h.

Map 2. displays the accessibility of proximity to sports facilities in Stockholm and Huddinge municipality. Using only walking and bicycling roads as the means of travel and setting the speed for traveling on the road network to 5km/h, the analysis simulates a pedestrian. The differently colored buffers that are created around each sports facility display how long it would take a person walking 5 km/h on the walking- or bicycling roads to the sports facility. If the person starts to travel from a red buffer, it will take about 30 minutes to reach the sports facility, from a yellow buffer - 20 minutes, and from a green buffer - 10 minutes. The gray borderlines show the boundaries for each city district area within Stockholm municipality, and the blue border shows the municipal border to Huddinge municipality. The results show that the accessibility to sports facilities is relatively even in Stockholm municipality. In Huddinge, the accessibility in terms of proximity to sports facilities seems to be uneven when comparing the north of Huddinge to the south of Huddinge. The south of Huddinge does not have any sports facilities. However, the land use in the south of Huddinge is mainly covered by forest or open land. The buffers cover Huddinge's urban- or built-up land, indicating that the proximity to sports facilities, where most of the population is located, is good.
6.2 Tensta and Spånga

Map 3. Network analysis on walking and bicycling roads to sports facilities for a pedestrian walking at a speed of 5km/h in the Spånga-Tensta city district area.

Map 3. displays that the accessibility in terms of proximity to sports facilities in Tensta and Spånga is rather good, no matter where in the area you live. The accessibility in terms of proximity in Tensta is better than in Spånga. However, more sports facilities in Spånga are clustered near each other. If they were to be dispersed more evenly throughout the area, the whole of Spånga would be covered by the 10-minute walking buffer. Another thing to note is that the walking and bicycling road network is far more intricate in Tensta than in Spånga, granting far more alternative routes to the sports facilities. This gives the 10-minute buffer a more evenly shaped form than in Spånga, as the road network grants more routes to traverse to get to the sports facility.
There are apparent differences between the areas regarding the population’s characteristics, as shown in Map 4. Spånga has a majority of the urban adjacent population and a minority of urban diverse, where the urban adjacent key characteristic is a high contrast over scale regarding share of immigrants and income, and urban diverse represents a large scale migration density in the area. Tensta only has an urban, diverse population, meaning there is a large-scale migration density in the area. The urban adjacent population tends to act as a buffer zone between areas of urban deprivation and urban affluence, and the urban diverse is more diverse than the urban adjacent. Also, there is a higher share of non-European immigrants in the urban diverse area.

6.2.1 Interview with Thomas, affiliated with a basketball club in Spånga

The setting for the interview is an office hotel in Spånga, and I am greeted at the door and escorted to the office by Thomas, the club manager. Thomas has set up a space in a somewhat crowded office that he jokingly explains also works as a storage unit for basketball material. Basketball, documents, vests, and some trophies from different tournaments are scattered around the office. Thomas has recently become the club manager but still coaches some teams. He has been affiliated with the club for many years and has mainly coached girls. The club is evenly divided between girls and boys,
and when I ask about the socio-economic status of the players, Thomas answers that some of the kids live in huge villas while some live in simple apartments. When asked how to decide which team in the club gets to practice at what time, he answers that the younger you are, the earlier you should be able to practice. He thinks that it is just common sense to prioritize in that order. He jokingly explains that if the youngest would practice late, he would have to deal with rioting parents.

Most of the girls in the teams he coaches live close to the sports facility where they have practice. He thinks that players should not have to travel for long to be able to practice, especially if they are not an adult. He believes that long commutes to practices are one of the reasons why many girls stop participating in sports when graduating from elementary school and starting in the gymnasium. Although he believes that if they were to have practice further away from the area they practice in now, they would still come to practice. He explains that their team consists of motivated girls to become great basketball players and that the girls' parents are great to cooperate with regarding these matters. He thinks that if that were the case, the parents would organize a carpooling system so that the girls can be driven home by somebody else's parents.

Their team has two practices that start at 4:30 pm, one starts at 7:30 pm, and one starts at 8:00 pm. He does not experience that the number of participants is fewer because of this. Thomas explains that the number of participants is lower in some practices but has nothing to do with time; instead, other sports that the girls are enrolled in are scheduled at the same time as basketball practice, making it impossible to be in two places simultaneously. Thomas thinks this is great as he refers that reports show that the longer kids are involved in multiple sports, the better it is for their athletic skills development and wellbeing.

Regarding the prioritization of 10-20 old girls with foreign backgrounds, Thomas, who previously has been affiliated with the national basketball organization, considers it to be unclear. He agrees that it is essential to prioritize the group, but he suggests clarity and better communication from the municipality on how sports organizations can do that.

6.2.2 Interview with Yacouba, affiliated with a basketball club in Tensta

The setting in which I interviewed Yacouba is a conference room that is located in the Tensta swimming- and sports facility. Yacouba is friendly and talks proudly of their youth girls' team that will soon participate in the Final Four playoffs, giving them a chance to become the best team in Sweden. Yacouba is the founder of the basketball club, and he explains that he and a friend noticed the need for a sports club that operated together with parents and schools in the area. Yacouba wanted to create a sports club
that not only provided children and adolescents with meaningful leisure in the form of basketball; he also wanted to create an environment in which they could develop social skills and feel accomplished. Having grown up in the area but moving away for a few years, as he returned to play basketball for another club, he noticed that there had been a change in attitude amongst children from what he had experienced. He experienced that they had low self-esteem, and he wanted to change this. When the club was founded and the number of participants increased, he started forums for girls and boys, a safe space in which they could talk about problems and feelings to build self-confidence and break the stigma about being vulnerable.

The sports club is now the biggest basketball club in the area, and they host practices for age groups between 5 years old to adults. Yacouba explains some of the challenges they face regarding their sports club, including the scarcity of available basketball courts. One aspect of this challenge is the size of the basketball courts in the area. Only one court in the area is the proper size to host basketball practices when playing 5 against 5, which is the way to play after turning 13 years old. Since other sports clubs want to use their facilities, getting time slots to host practices is difficult. The municipality is in charge of the booking system of sports facilities, and the order in which sports clubs can choose their preferred time slots are based on the number of members in the club. However, Yacouba states that some sports clubs are not reporting the correct number of members to the municipality to get better time slots on the appropriate facilities. Yacouba continues by explaining that this leads to the courts not being used most optimally. He exemplifies this by showing me two courts in the area, a full-size basketball court where only half the court is being used by a group of about ten young basketball players and a court that is much smaller, where they have about 40 kids in different age groups, both girls and boys, that have to share a much smaller space. In addition to that, they are also older and, thus, should practice on a full-size court.

I ask how they prioritize time slots for the different groups in the club regarding age and gender. Yacouba states that their policy is that the younger you are, the earlier you should have practice. He continues by explaining that time, and proximity is essential for being able to get children to be able to practice basketball. If he schedules a practice too far away or too late, the parents will not allow their children to go, being concerned about their safety. He also explains that it is different from sports clubs located in areas with higher socioeconomic status. Often the parents in these areas can drive their children to and from practice, something that the parents in Tensta cannot do. Either they can not own a car or a driver's license, but in many cases, there is a lack of knowledge regarding being involved in an organized sports club. Yacouba actively aims to decrease the lack of knowledge by involving the parents and inviting them to see games, practices, and meetings. Another aspect of the challenge is playing away-games, games located in areas other than Tensta. Some of the children do not have public
transport tickets or parents that can drive them, resulting in fewer players in the away-games than at home games.

### 6.3 Skogås

Map 5. Network analysis on walking and bicycling roads to sports facilities for a pedestrian walking at a 5km/h speed in the Skogås-Trångsund city district area.

Map 5 displays that the Skogås-Trångsund city district area has a relatively concentrated area of sports facilities to the center and south, where the accessibility in terms of proximity is good. In the north of Skogås-Trångsund however, there is a lack of sports facilities, and individuals in the area have more than 30 minutes to walk to access a sports facility. Map 6 displays the same network analysis on the walking and bicycling road network for pedestrians, but the buildings are included. Map 6 shows that there seem to be a lot of villas or houses, which might not be the ideal location to put a sports facility in the area. This can be why the north of Skogås-Trångsund is not as accessible in terms of proximity to sports facilities as compared with the center and south of the area.
Map 6. Network analysis on walking and bicycling roads to sports facilities for a pedestrian walking at a 5km/h speed in the Skogås-Trångsund city district area. Buildings included.
Map 7. Classification of neighborhood characteristics regarding socio-economy and ethnic diversity in Skogås-Trångsund city district area.

Map 7 shows that the area Skogås-Trångsund has a somewhat mixed set of characteristics in the population. The urban homogeneous population, whose key characteristic is a medium level of education with high income, is situated along the coast and in houses and villas. The Skogås city center has a substantial urban diverse population, representing a high share of immigrants in the area. There is also some rural town working-class population, whose key characteristic is high employment levels with low income and high share of EU migrants.

6.3.1 Interview with Jonas, affiliated with a basketball club in Skogås

The setting for the interview is in Hagsätra, a suburb south of Stockholm, and I was invited to watch a game they were playing in the Hagsätra sports facility. The team of young girls has by train, subway, and walking, made it to the sports facility and they traveled together. Having briefly talked to the team beforehand, they are confident and excited to play. The court is small, and as a spectator, I almost invade the boundaries of the court. After the game, which the team unfortunately lost, I sat down with Jonas and started to discuss the game. Even though they lost, Jonas was proud of his team. He explains that many players have not played for long and that the girls lost, even more, the last time they faced this team. Some of the players could not make it due to the celebration of the Muslim holiday Eid, which is the celebration of breaking the fast of Ramadan.
Jonas starts talking about the travel to the game, and when meeting up at Skogås before going to the game, the four players do not have a public transport ticket. This is, according to Jonas, one of the challenges of coaching a team in a socioeconomically challenged area. He continues telling me about incidents where they have been forced to get their opponent’s coaches and parents to drive the players to the game since there have not been any of their own players' parents that have had the means to be able to.

Jonas is a former professional basketball player who started to coach kids after his career ended. As he puts it, he fell in love with the game again after having his first couple of practices, seeing both the problems that the kids faced and the potential to be part of the solution. The club that Jonas is coaching in has around 100 nationalities represented, which he is very proud of. The club has attracted girls and boys, but the boys are slightly fewer. He is aware that girls between ages 10-20 with a foreign background are the minor participative group in organized sports; even so, the club has made efforts to reach out to them and has created an attractive environment for them to participate in. One of the reasons is the low barriers to start playing, having few requirements to play. Other sports and basketball teams have coordinated clothing and strict rules on what to and what not to wear during games and practice. Jonas means that this can be exclusionary because kids who do not have the means or knowledge to have all the “correct” things feel alienated.

Almost all of the girls in the team live close to the sports facility they practice in, within walking distance. Jonas believes that if they were to practice further away, most of their players would not be able to participate. He means that the reason is that parents do not allow them to be out that late, as they are concerned for their safety. The parents also do not necessarily have the means to drive them to and from practice.

I asked Jonas how he experiences the prioritization for 10-20-year-old girls, as stated in the municipal sports political document, and he does not feel that particular group is prioritized. He instead feels the opposite and follows with an example. Since there is a shortage of sports facilities in the municipality, especially regarding full-size basketball courts, he has contacted the political head of culture and leisure (kultur och fritidsnämnden), inviting them to their sports facility, pointing out the flaws and the need for more sports facilities that can host elite basketball games. The club’s women’s team was denied advancement to the highest division in Sweden due to the lack of a big enough arena to host games in. Some years ago, the municipality decided to build a multi-arena that could host elite games. But only for handball and floorball. The municipality's men's and women's handball and floorball teams are currently playing in lower series than their women's basketball team. Thus the basketball team has a more severe need for a sports arena to host elite games. Jonas states that he thinks that this is the opposite of prioritizing girls with foreign backgrounds, denying them basketball role models in the highest division.
The following chapter will analyze the results, using the theoretical framework of Hägerstand (1970). Further, the chapter will display how the research questions have been answered as well as provide other subjects of interest that relate to the aim of the study.

7. Analysis

Building on the quantitative and qualitative results and the analysis of the interviews, this chapter will contextualize the results and analysis concerning this study's aim and research questions. This study aimed to explore how different aspects of accessibility on a municipal level and on an organized sports level relate to 10-20-year-old girls with foreign backgrounds participating in organized sports and how it can be adjusted to attract the group better. The specific research questions were:

1. How is the accessibility to sports facilities for 10-20-year-old girls with foreign backgrounds in Stockholm and Huddinge municipality?

2. Does accessibility of sports facilities matter for 10-20-year-old girls with foreign backgrounds in the Stockholm and Huddinge municipality?

3. How do the coaches of 10-20-year-old girls with foreign background experience that they are prioritized?

4. How can the theoretical framework of time-space geography be applied to studies of accessibility to sports facilities for 10-20-year-old girls with foreign backgrounds?

Research question 1. is answered in the results section, visualized by map 1, 3, 5 and 6. The network analysis displays the spatial accessibility, using proximity as the measure to understand it. The second research question is answered through the interviews. In the discussion of capability constraints and the discussion of accessibility, a deeper reasoning regarding the importance of accessibility is displayed. The third research question is also answered through the interviews and a deeper reasoning of the question is displayed in the discussion. The fourth research question is partly answered in the analysis chapter, using the theoretical framework in order to better understand the experiences of the group as well as accessibility to sports facilities. In the discussion chapter, I will discuss how it has helped analyze the data collected. Further, other findings of interest have been analyzed, although they are not necessarily connected to the research questions, they are related to the aim of this study.
7.1 Socioeconomic differences in spatial accessibility and spatial-temporal accessibility

The maps 1, 3, 5 and 6 visualize the spatial accessibility in terms of proximity to sports facilities in the areas are good. Most of the areas are covered by a 10-20 minute walk to the closest sports facility. However, in terms of spatial-temporal accessibility, there are barriers in terms of distribution of sports facilities that are hindering participants in sports clubs to practice in appropriate facilities at reasonable times. The spatial-temporal accessibility correlates with the socioeconomic population composition in the area, displayed by the differences in Thomas’ experiences of the parents' ability to have practice late, since the parents of the group are able to drive them. In contrast to Jonas and Yacoubas' participants, which have greater problems regarding away games and having practice further away, Jonas, stating “they would not be able to come at all” (personal communication, April 22, 2023) is an example of this.

7.2 Capability constraints

The organizations in socio-economic challenged areas give examples of how girls within their respective organizations face hardship regarding traveling to sports facilities that are not within walking distance. The participants show how often other sports organizations host problems regarding away games. They have often had problems getting a ride by car to the games since the girls' parents are unable to drive or do not have a car available.

_There aren't as many parents as mothers and such who have driver's licenses and access to a car. So, it often happens that many here don't have SL cards that work on weekends or after seven o'clock. So, it often happens that when we have away games that are far away... ...they don't show up for the matches. But if there's a match nearby, the stadium is packed. (Yacouba, personal communication, April 24, 2023)_

The quote relates to Hägerstrands concept of capacity constraints as the girls' parents do not have the means to travel within the space with little time, which can be granted by having access to a car. Thus, they cannot give their children a ride to games that are played far away. Here, the trajectory for the girls is prolonged within the space-time dimension due to their parent's capability constraints. There is also a more direct capability constraint for the girls. Jonas also refers to the lack of public transport tickets as an issue (SOU, 1970:14).

_Like today when we were meeting up for the game in Hagsättra, four girls showed up at the train station and did not have a sl-card (public transport_
The lack of public transport tickets delineates the space in which the trajectory can reside. Not having the means to travel by public transport shrinks the space the girls can participate in organized sports events. Further, when asked how their organization would be affected by hosting practices in a sports facility that was further away from the area where they currently host practices, both participants residing in socio-economically challenged areas described that the participation rate would drop. Jonas - “If we couldn't practice in Edbohallen, half of the girls wouldn't be able to come...” (Jonas, personal communication, April 22, 2023). This is stated by Yacouba as well. Thus, the capability constraints restrict the girls from participating in basketball events that are not accessible within walking distance.

On the other hand, Thomas reports quite the opposite picture regarding the parents' possibility of driving their children to and from practice. He describes the participants' parents as being very involved in their children’s sports as they are watching their games and giving them rides if needed.

But also because they are a very supportive parent group. So even if not everyone has parents who provide transportation, I'm convinced that they would solve it by everyone coming together and ensuring that everyone gets a ride. (Thomas, personal communication, March 24, 2023)

The quote is an excellent example of capability constraints as the parents giving them a ride grants them to move further in space in less time. Thus, it is not a problem regarding away games that are far or having to practice in a sports facility that is further away.

7.3 Coupling constraints

Jonas, Yacouba, and Thomas report issues regarding organizing the teams in their respective sports clubs so that teams can practice in a sports facility suitable for their age. Since there is a shortage of sports facilities in Stockholm municipality, sports organizations compete to access the best sports facilities and time slots available (Heick, 2019). The respondents report that their teams often have to settle for having practiced in sports facilities not optimal for their age, knowing, at least in Jonas And Yacouba's case, that their players cannot get to a far-off sports facility.

We don't have many sports facilities, so now we have to squeeze everyone in at the same time. That means there might be double or triple groups practicing simultaneously. We have to consider time and how far it is. We can't place a
younger team farther away, considering they have to take the bus and so on (Yacouba, personal communication, April 24, 2023).

The coupling constraints that Hägerstrands (1970) includes in his theory of time-space geography are applicable here to understand the different needs regarding age, socio-economy, and gender. The domain, in this case, is the sports facility, which has different characteristics regarding size and accessibility in terms of proximity. The sports facility is also differently accessible depending on what group wants access to it at what time. A group of 13-year-olds and older cannot have meaningful practice in a sports facility that does not fulfill the proper requirements for a full-size basketball court. Also, to have practice for girls with foreign backgrounds in a socio-economic challenged area late at night, which would give access to the sports facility, is not an option, as stated by the respondents. Thus, according to Hägerstrands (1970) coupling constraints, the sports facility needs the correct group of people in it at the correct time to be useful. Of course, it is not rendered useless, but it is not optimally used in an area where the scarcity of sports facilities is overwhelming the sports clubs.

7.4 Domain

Thomas states that it is common sense to put the youngest kids in the earlier time slots and in the smallest sports facilities. However, Yacouba has experienced problems when other sports clubs in the area compete for the same facilities, thus, not getting access to the sports facilities they need.

If a team has many younger members who might participate in Easy Basket, or a junior league, then those groups should be in the school gymnasiums. That's common. Younger teams are there. But everyone wants to use the sports facility up here. It might be slightly bigger and nicer. Then you put them there. That means you use half of the court. You don't need a full-size court for 7-8-year-olds, 9-year-olds, or 10-year-olds (Yacouba, personal communication, April 24, 2023).

Referring to the domain, spaces that require some form of payment, authority, or invitation to gain access to, a sports facility can be understood as a domain. In order to gain access, the more members a sports club has, the easier the access to the sports facilities are. Jonas mentions how their women's team are denied access to the highest basketball division due to the lack of full size basketball arenas, and that, despite their success, have not been considered when planning for building new arenas that are meant for elite sport. Considering the elite sports arena a domain, the authoritative municipality won't give access to the women's team, displaying the lack of prioritizing a sports that has the highest share of girls with foreign backgrounds represented in
organized sports. In an aspect of providing girls with foreign backgrounds role models that play their sport in the highest national level, this can be seen as a way of stripping them of that by excluding them from the domain of elite sports facilities.

7.5 Including and excluding conditions

Previous research about girls with foreign backgrounds absent in organized sports mentions that an economic aspect is often portrayed as the main issue (Kassman & Knerr, 2021). Yacouba states that it is a factor but that a knowledge gap among the parents is a more significant issue. He refers to a knowledge gap that is rather extensive among the participants’ parents.

Many often emphasize out here that it might be an economic issue. But that's not always what it's about. It's more of a knowledge issue. In these areas, there are many parents who don't have a background in organized sports clubs. So they don't understand how things should be when you are a part of a sports club (Yacouba, personal communication, April 24, 2023).

The statement relates to the findings of Ekholm et al. (2022), who also found the parents’ attitude toward their girls’ participation in sports to be a factor that keeps them from participating. Yacouba, however, mentions that he has seen much improvement, at first being criticized by parents as a male coach for female players; now he has gained their trust and interest as he reports that parents have been starting to come to watch games and practices. He claims that extensive work on communication with the parents has played a crucial role when gaining their trust.

When I started, it was sensitive that as a guy, I would be responsible for girls’ groups. I have coached girls over the years. But then the trust came in, and parents understood what I was aiming for. And now everyone wants me to coach their children... ... That's when I got in touch with a girl who took on that role. Now she's going to be the parent representative in the association. She will handle many of the issues with parents and girls (Yacouba, personal communication, April 24, 2023).

This quote relates to Ekholms et al. (2022) research as they mention that an issue for the parents is that their daughters are being coached by a male coach who shows an aspect of the segregational nature in socioeconomic areas, where there seems to be discussion regarding how girls and boys should interact appropriately. Further, Yacouba states that there is a knowledge gap amongst the parents, he says that “...they dont know what it means to be part of a basketball team…” (personal communication, April 24, 2023) referring to practicalities regarding practice such as information, appropriate clothing, showing up at correct times etc.
7.6 Prioritization of girls with a foreign background

Asking about the prioritization of girls with foreign backgrounds regarding sports and physical activity, as stated by the political sports program of Stockholm, none of the interviewees reported that they experienced the municipality doing that. All of them are aware of the political sports program but feel that the municipality has failed to execute it. As Jonas puts it, there is low trust in the decision-makers, and they experience it as “empty words” (Jonas, personal communication, April 22, 2023). Here he is recollecting the conversations with the political head of culture and leisure in Huddinge municipality in which he argued about the shortage of full-size basketball courts. Jonas regards the decision-makers as lacking knowledge and not following through on their statements. One example is the multi-arena that will not facilitate elite basketball games. Jonas and Yacouba describe feeling overlooked and that what the political sports program states sounds reasonable. However, there is a lack of actions to incorporate it into practice. Yacouba expects that the decision-makers in Spånga-Tensta should acknowledge the positive movement that he states that their sports club has been.

...we need someone to come out and look at our associations and just see what we're doing and what we need and so on. And then from there, we can see if there's room for us to help with these things that the city has decided they want to invest in. But you have to be someone who wants to invest in the sports clubs out here, and we don't feel that there is. (Yacouba, personal communication, April 24, 2023)

Relating to the previous research of the impact of sports on individuals (Bailey, 2005; Behtoui, 2019; Ekholm, 2018) I argue for the plausability that Yacouba and his basketball club contribute to public health, self-esteem, prosocial behavior, and positive role models. This relates to the implicit contract between organized sports clubs and the government that Norberg (2011) discusses as the implicit contract between government and sports clubs. Being granted funds and autonomy and being willing to provide social services in the area, they still feel overlooked. Further, Thomas states that “I'm aware of the priorities, but there is a lack of knowledge of how to implement it in practice” (personal communication, March 24, 2023). The statement by Thomas expresses the need for including planning practice when planning for inclusion in the sports movement. This subject will be discussed further in the discussion section.
8. Discussion

The network analysis findings show that the accessibility in terms of proximity is relatively good in the Spånga-Tensta city district area and Skogås-Trångsund. The whole area of Stockholm and Huddinge municipality have relatively good proximity to sports facilities, except for Huddinge's forested- and open land areas. The network analysis provides an answer to research question 1. In terms of proximity, or spatial accessibility the accessibility in the selected areas is good. However, the data set that was used only contained buildings that were labeled as sports facilities. If I included the school buildings with sports spaces for hosting physical education classes, I argue that the proximity would be even better. The data on whether schools have such a sports space was too overwhelming to include in this study. Regardless, accessibility in terms of proximity does not seem to be the major issue regarding accessibility to sports facilities in Stockholm and Huddinge municipality. However, in order to fully grasp the concept of accessibility, the parameter of time needed to be included. The analysis of the interviews depicts that to create an inclusive environment for 10-20-year-old girls with foreign backgrounds in the community of organized sports, being able to practice in reasonable hours, i.e., as early as possible after school, is essential. Not only is the spatial accessibility in terms of proximity essential, the spatial-temporal aspect of accessibility is that as well. The scarcity of sports facilities in the areas, and multiple sports clubs competing over the best hours in the best sports facilities, creates a situation where instead of having practice later in the evening in the full-size sports facility, teams must settle for having practice in a sports facility that does not meet the requirements of their sport. This is necessary in order to be able to practice at reasonable hours. I argue that the quality of sports facilities is overlooked in the accessibility debate. Not getting the means to practice sports on the conditions necessary may cause 10-20-year-old girls with foreign backgrounds and all other active sports participants to feel that sports are not as enjoyable as it has the potential to be. Yacouba reported that apart from the main issue being the shortage of full-size sports facilities, the booking system of sports facilities has a hierarchical model that is member-based; more members equal higher priority in getting to book the time-slots in the most attractive sports facilities.

The call for a change of practice can contribute to more optimal use of the sports facilities since the reports of sports clubs, as a way of getting better time slots, according to Yacouba report false numbers of members. The city districts in charge of booking do not have insight into the sports clubs and the basketball association, where every player is registered at games and tournaments. If the basketball association were to be in charge, maybe it would create a more optimal use of the sports facilities.

Having a shortage of sports facilities, and aiming to include girls with foreign backgrounds, that needs to practice at the most attractive time-slots, a potential conflict
of interests are explored. In the sports club that Yacouba is affiliated with, having plenty of participants, prioritizing their girl teams, which mostly consist of girls with foreign background, is not conflicting with using the sports facilities optimally. However, this can be an issue in other sports clubs where the number of participants is low. The conflict of using the sports facilities optimally or prioritizing girls with foreign backgrounds to get to practice at the most attractive time slots does not necessarily go hand in hand. Using Hägerstrands concept of coupling constraints was well applicable and an excellent tool of understanding the optimal usage of sports facilities (SOU, 1970:14).

My preconceived knowledge led me to believe that regarding the second research question, was that accessibility in terms of proximity, contrary to what international research states on the subject, does not matter (Pouliou., et al., 2019). However, I was wrong, as proximity correlates highly with ability to participate for 10-20-year-old girls with foreign background. Hägerstrands capability and constraints were highly useful when understanding and analyzing the means to get to practice that is close, as opposed to away games (SOU, 1970:14). Understanding the means of travel through time-space and the conditions in which girls with foreign backgrounds can get to away games are essential insights when planning for an inclusive sports setting. There is a difference in the level of capability constraints that correlates with the socioeconomic status of the area one lives in; referring to map 4 and the interviews with Thomas from Spånga in contrast to Yacouba from Tensta. The differences in the parents' ability to drive their children to and from practice, or giving them public transport tickets are substantial for the spatial accessibility. Prioritizing 10-20-year-old girls with foreign backgrounds can be done in many ways. One of them is allocating funds for transport to away games, as the interviewees report this as an issue.

The study's societal contribution is knowledge on prioritizing 10-20-year-old girls with foreign backgrounds in organized sports. The knowledge can contribute to sports-affiliated governance by examining the conditions under which they participate in organized sports, the obstacles they face, and the coaches' experiences on their view of the problem. The experience of coaches coaching 10-20-year-old girls with foreign backgrounds is that they are not being prioritized. In order to understand the different aspects of prioritization, some conflicting issues need to be addressed. In a city where there is a shortage of sports facilities, there is a conflict that the government has to consider. The conflict consists of whether the optimal use of sports facilities should be fostered, or if groups that may not use the sports facilities to its full capacity, i.e. small groups of people. These could be 10-20-year-old girls with foreign background, senior citizens, or people with physical disabilities. The point made here, is regardless of who is using a sports facility, diversity and inclusion versus optimal use of a sports facility is a statement that decision makers must make in order to either claim that they are prioritizing the stated groups in the political sports programs, or not to.
9. Conclusion

This study aimed to explore different aspects of accessibility, related to the participation of 10-20-year-old girls with foreign backgrounds in organized sports, and what factors that can increase participation for them. The key findings are the realization of how a spatial-temporal analysis of accessibility to sports facilities must be applied when aiming to understand accessibility to sports facilities for girls with foreign backgrounds. Further, in order to prioritize 10-20-year-old girls with foreign backgrounds, there is a need for practice in how to do so from the decision-makers. According to people affiliated with the group, the experience is that they are not prioritized as they should be according to the political sports programs from Stockholm and Huddinge municipalities. In order to prioritize the group, this study can contribute as a basis for making informed decisions regarding the challenges that the group face regarding accessibility.

In order to prioritize the group regarding spatial-temporal accessibility, not only is there a need to plan for full-size sports facilities, but the sports facilities should also reflect the political sports programs. This study has shown that both Stockholm and Huddinge municipality, according to the interviewees, have failed to do so. I argue that participative planning with methods such as citizen dialogue can help inform decision-makers of the challenges the prioritized groups face. Thus, more informed decisions can be made, following up on the goals set up by themselves. However, I understand that there are more factors to take into account when planning for accessibility. In the discussion, I brought forth a potential conflict of optimal use of sports facilities versus including the least participative groups in organized sports. These two interests may be contradictory, however, in the cases where they are not, I argue that a participative approach should be conducted in the planning process. Inviting experts of the field to comprehend the obstacles they face, and the needs they have in order to overcome them.

9.1 Limitations

There are some limitations to this study. Regarding the data on sports facilities: the sport facilities that are located in schools, which are used both for physical education and organized sports, are not included in the dataset. The absence of these facilities should most likely have a great impact on the network analysis, displaying an even better proximity if they were to be included. Thus the accuracy of the network analysis would improve, increasing the reliability and validity of the thesis. Further, due to the timeframe of this thesis and the difficulties of getting informed consent from parents, as well as the ethical issues, I decided not to include the girls in the interviews. I argue that including them would have increased my understanding of their experience of barriers, accessibility and their trajectories in both time and space.
9.2 Future research

Future research for this field is suggested to include 10-20-year-old girls with foreign backgrounds more in the data collection. To get a deeper understanding of their experience of accessibility to sports facilities, and the lifeworld they reside in. Using Hägerstrands time-geography as an analytical tool to understand the constraints and the domains they experience. Further, in order to get a holistic understanding of the accessibility to sports facilities, I suggest that decision-makers in these questions should be included in the interviews. Finally, I argue that extensive research on the quality of the sports facilities in Stockholm and Huddinge municipality would contribute immensely to the understanding of the problems described by the interviewees.
10. References


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