Pre-master thesis

Social inclusion and social capital in Amsterdam's community gardens

Colophon

Abstract

Community gardens have become more popular in recent years as many people have acknowledged the need for sustainable practices in food production. Also in Amsterdam more residents are participating for different reasons in local community garden initiatives. Previous studies have shown that community gardens can enhance social connections between members and the wider community and thereby enhance the social capital and social inclusion. In contrast, other studies have shown that gardening activities in communities can have negative impacts such as social exclusion or enlarging the gap between members of community gardens and non-gardeners.

This research aimed to identify the extent to which the community gardens Het Eetbare Plantsoen and Voedseltuin IJplein in Amsterdam foster social capital and social inclusion. By conducting and analysing five semi-structured interviews, it became clear that both community gardens foster social capital and social inclusion. Various activities have led to social relations between people with different backgrounds, friendships as well as connections with the wider neighbourhood. Nevertheless, the interviews also shed light on the opportunities to further enhance social capital and social inclusion.

Keywords: Community garden, social capital, social inclusion, Amsterdam, the Netherlands

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HEP	HEP
PC	Personal communication

1. Introduction

This chapter gives an introduction to the background of community gardens, followed by the discussion of the research problem. Lastly, the structure of this thesis is described.

1.1. Background

Community gardening has been around in Europe for many centuries. Due to the need for sustainable practices in food production community gardens have become more popular in recent years. Local citizens seek to grow their own foods, enhance their well-being and improve the biodiversity of urban spaces and neighbourhoods they live in (Ernstson *et al.*, 2010). Also in the Netherlands community garden initiatives have multiplied and are initiated by different actors like citizens, local governments or housing corporations (Veen, 2015). The first community gardens in the Netherlands appeared as allotment gardens (in Dutch volkstuinen) in the late 18th century (Bondvandevolkstuinders.nl, n.d.). Allotment gardens became popular to fight food shortages caused by political and economic crises during industrialisation and the World Wars I & II (Barthel, Parker and Ernstson, 2015). In the 1970's community gardens and urban farms in the Netherlands were inspired by the grassroot movement "Green Guerillas" that emerged in the US. As environmentalism and counterculture gained significance where people demanded to be part of the local decision-making processes, more local initiatives arose around not just in the Netherlands but on a European scale (Bell *et al.*, 2016). Today, community gardens are still important to many inhabitants to grow their own food, reduce their ecological footprint, and connect with their neighbourhood (Lindner, 2021). The increase of community garden practices has led to various academic studies examining the environmental, economic and social impacts of these initiatives (Schmelzkopf, 1995; Ferris, Norman and Sempik, 2001; Spierings, Van Liempt and Maliepaard, 2018). Generally, most research studies about community gardens focus on the positive effects such as social inclusion (Holland, 2004), civic participation (Bródy and de Wilde, 2020) or controlling micro-climates within neighbourhoods (Lovell, 2010). Kingsley and Townsend (2006) argue in their case-study in Melbourne that social cohesion, social connections as well as social support are benefits of community gardens. However, recent studies found that gardening activities in communities can also have negative impacts such as social exclusion or enlarging the gap between members of community gardens and non-gardeners (Spierings, Van Liempt and Maliepaard, 2018). Furthermore, there is little research about community gardens in the Netherlands available as most academic literature focuses

on North America (Veen, 2015). As Dutch cities differ from American ones, it is necessary to enrich the academic debate with examples of community garden practices in the Netherlands.

1.2. Research problem

Since the academic studies about community gardens portray both positive and negative social effects, this research aims to understand these social effects of community gardens in Amsterdam. Therefore, two community garden initiatives in Amsterdam are explored and researched to what extent they foster social inclusion and social capital. The central research question that is explored is *"To what extent do community gardens in Amsterdam foster social inclusion and social capital?"*.

In order to answer the main research questions, secondary questions have been formulated:

1. *How do the community gardens explored foster social capital?*
2. *How do the community gardens explored foster social inclusion?*
3. *What are the opportunities to bring more social inclusion and social capital into the two community gardens?*

1.3. Structure of thesis

The thesis has described thus far the background and the research question. The next chapter will discuss the theoretical framework. Chapter 3 elaborates on the methodology that was selected to answer the research question and related sub-questions. Additionally, this chapter describes the data analysis and reflects on the ethical considerations. In chapter 4 the results of the semi-structured interviews are presented while chapter 5 forms the discussion of the results. Lastly, chapter 6 will answer the main research question, reflecting on the research as well as making recommendations for further research.

2. Theoretical Framework

In this chapter, the relevant concepts are discussed by analysing the existing scientific literature. The concepts relevant for this research are community, community gardens, social inclusion and social capital. Additionally, the concepts are visualised in a conceptual model.

2.1. Community and community gardens

The concept of community has been researched a lot in geography and sociology, but researchers apply different meanings to the term (Firth, Maye and Pearson, 2011). As an example, communities can be place-based or online. For this research, the definition will focus on place-based communities. Communities can be formed by people around shared interests, beliefs or activities and are within a specific geographical area, such as a garden (Firth, Maye and Pearson, 2011; Nettle, 2014). Communities are "[…] built by community members who are engaged, participate and feel capable of working through problems, supported by strong social networks" (Firth, Maye and Pearson, 2011, p. 557). These social networks might not just be within the place-based community by for example meeting other members, sharing seeds or sharing knowledge (Wang *et al.*, 2015), but can also extend over regional or national borders (Nettle, 2014). Members of different communities might come together to collaborate or "[…] combine, create, and transfer collective knowledge" (Bolden *et al.*, 2018, p. 2). Information- and knowledge-sharing between communities can therefore increase the accessibility for relevant information (Bolden *et al.*, 2018).

Community gardens are part of the movement of urban agriculture with the aim to grow food in urban spaces (Knapp *et al.*, 2016). They can take different forms such as allotments, educational gardens, herbal gardens or wildlife gardens (Firth, Maye and Pearson, 2011). Nettle (2014) adds that community gardens exist in one specific location and focus solely on the neighbourhood and the local place. Besides the production of foods like vegetables or crops, the gardening projects can increase the local pollination as well as the vegetation within urban spaces (Ernstson *et al.*, 2010; Lovell, 2010). Pudup (2008) raises the need to distinguish between community gardens that are run for the community by external actors, by the community itself or that are just located within a community. Furthermore, community gardens can enhance multiple biological, environmental, social or cultural aspects (Okvat and Zautra, 2011). McVey, Nash and Stansbie (2018) suggest that "gardeners appear to experience the garden as a sanctuary from the pressures of the world, a setting for learning, social connectedness and place attachment, and a place of spirituality, physical leisure benefits and better food" (p.45). For this research, the focus was laid on bottom-up community gardens. These gardens are used for non-commercial purposes and are initiated by individual citizens

or a citizen group to foster the sustainable development of the neighbourhood and increase the social capital of the community. Stirling and Smith (2018) add that community gardens can support the development of social relationships with others.

2.2. Social capital

Social capital can be seen as the dense network between individuals of the norms and values that are shared and which generate cooperation, trust and reciprocity (Shortall, 2008). According to Leyden (2003), a high degree of social capital can lead to political involvement, volunteering in communities as well as increasing the social interactions between neighbours and friends. Veen *et al.* (2016) argues based on her study of community gardens in the Netherlands that social ties can be strengthened between people, even if the motivation for participation is not solely social. These strong social ties might also lead to empowerment and standing up for other issues within a neighbourhood (Armstrong, 2000).

Ding *et al.* (2020) elaborate further, that social capital can be built when community gardens are located in areas that are easily accessible. Therefore, a community garden situated in a residential area can increase social interactions between the members and the wider neighbourhood (Ding *et al.*, 2020). This expansion of the social network is additionally strengthened when the community garden is open and without any fences (Bell *et al.*, 2016).

Social capital can further be cultivated by carrying out various educational, cultural or commercial activities (Ding *et al.*, 2020). Nettle (2014) describes that activities such as open days, herb selling, art exhibitions or farming workshops can lead to an increase in the vitality and participation in a community garden. Moreover, cross-cultural activities can strengthen social networks between members of the garden and other participants of the surrounding neighbourhoods (Ding *et al.*, 2020).

2.3. Social inclusion

Social inclusion can be defined as people's ability to access and participate in social and political networks (Oxoby, 2009). Moreover, social inclusion can be seen as a process of (re-)building social ties by promoting opportunities for all people to access social projects (Atkinson *et al.*, 2002). Cocquyt *et al.* (2017) extends the concept of social inclusion as "the combination of social participation and social connectedness" (p. 79). Social connectedness is about the degree of closeness between an individual and other people, a community or society as a whole (Cocquyt *et al.*, 2017). However, research by Evers and Hodgson (2011) suggests that the fixed layout of a community garden can limit the access to participation for people wanting to become a member. Spierings, Van Liempt and Maliepaard (2018)

additionally discuss that long waiting lists for memberships can create an access barrier for non-gardeners.

Community gardens can contribute to the inclusion of groups that are dis-empowered and who might find it challenging to be an active member of their community and society (Sasaki, 2014). Participation in community garden activities can increase the sense of belonging, mental and physical wellbeing and thereby enhance the quality of life (Mmako, Capetola and Henderson-Wilson, 2019). According to Certomà and Tornaghi (2015), community gardening can contribute to reinventing the interactions of public spaces as it brings people from different backgrounds together. Nevertheless, other research implies that community gardens with members of various cultures can bring conflicts due to cultural differences such as language or cultural perceptions on community gardens (Moulin-Doos, 2014; Schermer, 2014).

Language is also related to social inclusion as language barriers can affect social interactions as well as communication between people from different backgrounds (Beißert, Gönültaş and Mulvey, 2020). Moreover, in group settings such as community gardens, "speaking the same language provides similarity to others" (Beißert, Gönültaş and Mulvey, 2020, p. 221). Language can therefore be the bridge for intergroup contact such as interactions between different social groups or foster friendships (Wright and Tropp, 2005). Bacquet (2020) adds that "language knowledge has the potential to help the learner gain greater opportunities and access, thus enabling them to participate more fully in their societal life" (p. 11).

Linking social capital with social inclusion, it can be said that both concepts are influenced by social relations and social boundaries (Daly and Silver, 2008). Shortall (2008) argues that social capital is dependent on social inclusion as "[…] it cannot develop if people are unwilling or unable to participate" (p. 451). However, social capital can also be affected by feeling socially connected to other people by being part of a network with shared norms or even developing new friendships (Cocquyt *et al.*, 2017).

2.4.   Conceptual Model

Based on the concepts described above, a conceptual model was created. Within community gardens, members are participating in activities and they can build relationships with each other which in return can lead to social inclusion as well as social capital.
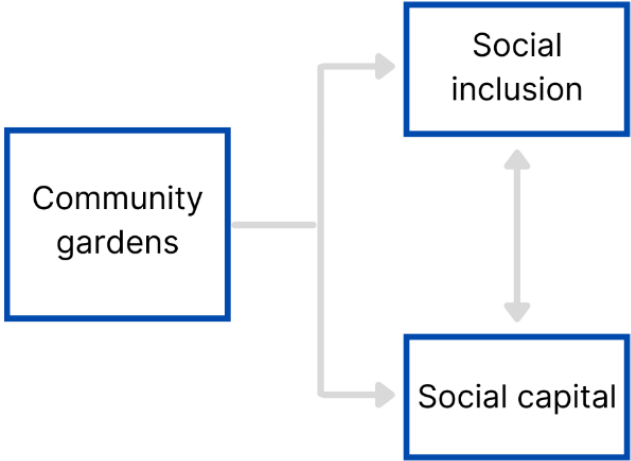
Figure 1: Conceptual framework

3. Methodology

This chapter describes the methodology of the research. The chosen data collection method is introduced followed by the data analysis scheme. Lastly, ethical considerations for conducting interviews are discussed.

3.1. Data collection method

Every research problem needs to be analysed and answered with an appropriate research method. The research questions defined earlier aim to explore the social inclusion and social capital in two community gardens in Amsterdam. Since the concepts of social inclusion and social capital are based on experiences of individuals, analysing the existing literature is not sufficient. Therefore, qualitative research in the form of in-depth semi-structured interviews was conducted with chosen participants. Semi-structured interviews help to get an extended understanding of an issue and to decipher personal meanings, experiences and opinions (Leavy, 2017). This type of interview makes the conversation between the interviewer and the interviewee more flexible and at the same time leaves room for follow-up questions (Edwards and Holland, 2013). Hence, questions were split into opening questions, key questions with related sub-questions as well as closing questions. The interview guide with the relevant questions can be found in appendix 1.

For the data collection the purposeful sampling method was applied. This sampling method is often used in qualitative research with the aim "to select instances that are information rich with a view to answering the research question" (Flick, 2018, p. 88). Besides choosing interviewees based on purpose, the method of criterion sampling was applied (Patton, 2002). Within criterion sampling the researcher reviews cases that meet certain predefined criteria. Criterion sampling is a suitable sampling method as there are various projects that are connected to community gardening like school gardens, vertical gardening and other initiatives that are not part of the theoretical definition of community garden used in this research context. For this research, the predefined criteria was that the community gardens are located within the city of Amsterdam and were initiated by local inhabitants. Additionally, the community gardens need to be reachable by phone, e-mail address or via their website. Therefore, a list with all known community gardens in Amsterdam was extracted from the municipality of Amsterdam ('City farming', 2022). In total there are 203 garden initiatives in Amsterdam which can be classified into herb gardens, kitchen gardens, urban farms, vertical farming, food cooperative, food forests and school gardens. Within this research the focus was laid on kitchen gardens since they are mainly initiated by locals and within a certain neighbourhood. Some community gardens in the municipal list were established by charity organisations or

housing associations. Since these are not initiated by local citizens and therefore do not meet the criteria, they were left out for this research. The number of community gardens that met the predefined criteria is 109. As this sample size is too large to conduct interviews with all community gardens, it was decided to choose randomly two gardens. With the help of a random number generator the numbers 66 and 96 were picked. Using a random number generator every community garden has the same chance of being selected for an interview (Leavy, 2017). The community gardens that were contacted and wanted to participate in the research were Het Eetbare Plantsoen and Voedseltuin IJplein.

3.1.1. Het Eetbare Plantsoen

HEP is located in Amsterdam West and was established in March 2016 by Lea, who was also one of the participants in this research. At the time of the research this community garden had around 30 active members who could participate either on Wednesdays or Sundays (2022, Lea, PC, 29th March). With HEP three interviews were conducted with the initiator Lea, and two of the gardeners: Jade and Willemiek. The interviews were held in English and via Zoom.

3.1.2. Voedseltuin IJplein

Voedseltuin IJplein sits at the waterfront of Amsterdam Noord and was founded in 2014 by members of the surrounding neighbourhoods (Voedseltuin IJplein, no date a). Nowadays this garden has some 50 regular members who can participate on Tuesdays, Wednesdays and Saturdays (Voedseltuin IJplein, no date b). At Voedseltuin IJplein two interviews were conducted from which one was online and the other one was in person. The members who wanted to participate in the interviews were Louise, the chairwoman, and Pete, one of the coordinators.

3.2. Data analysis scheme

In order to facilitate a smooth data analysis and interpretation of the interview outcomes, the steps as described by Leavy (2017) were followed: "(1) data preparation and organization, (2) initial immersion, (3) coding, (4) categorizing and theming, and (5) interpretation" (p. 150). In the phase of data preparation and organisation, the interviews were transcribed and sorted by interview date. During the initial immersion, the data was read through to generate first ideas and to begin with the reduction of data. The phase of coding was concerned with the reduction and classification of the interview data. Here, phrases or words were assigned to segments of the interview data. Since the interviews are structured around the concepts of social capital and social inclusion, descriptive coding was used as a deductive coding method (Saldaña, 2014). The step of categorizing and theming is aimed at distinguishing themes, patterns and relationships between similar codes (Leavy, 2017). Furthermore, memo linking was used to

document understandings, ideas and impressions. This assisted with the last step of the interpretation, to make connections between codes, concepts and the patterns that emerged (Leavy, 2017). Figure 2 summarises the process of data collection, analysis and interpretation. The transcribing and coding of the primary data was done with the help of the programmes Otter.ai and ATLAS.ti (Appendix 4).
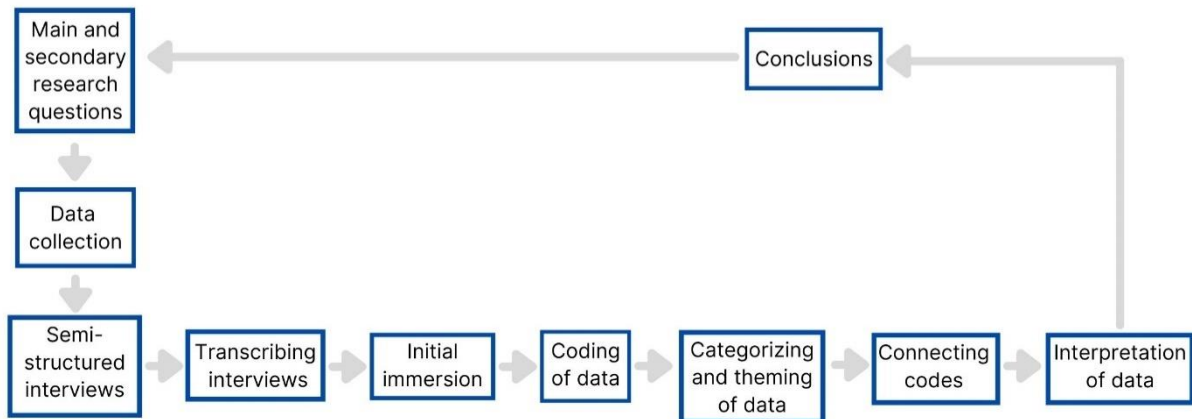
Figure 2: Process of data collection, analysis and interpretation (based on Leavy, 2017)

3.3. Ethical considerations

Data collection by researchers often asks participants to share personal and sensitive information. Therefore, potential respondents had to sign an informed consent before participating in this research. The informed consent gave a layout of the purpose of the research, the method of data collection as well as the approximate time that the interview will take (appendix 2 and 3). Additionally, participants were asked to sign that they give permission to use their personal information for the purposes of the research and that the interviews will be recorded (Clifford *et al.*, 2016). Lastly, the participants' were allowed to choose themselves if they want to anonymise their identity and they could receive a copy of this research once it is completed. All interview recordings and transcripts were stored in a secure place and can only be accessed by the researcher.

4. Results

This chapter outlines the results of the interviews conducted with the members of the community gardens HEP and Voedseltuin IJplein. Figure 3 gives an overview of the members that were interviewed. The results are presented based on the concepts of social capital and social inclusion described in the theoretical framework.

Interviewee	Community garden	Age	Nationality	Date of interview
Lea	Het eetbare plantsoen	66	Dutch	29/03/2022
Jade	Het eetbare plantsoen	27	French	29/03/2022
Willemiek	Het eetbare plantsoen	60	Dutch	06/04/2022
Pete	Voedseltuin IJplein	69	Dutch	04/04/2022
Louise	Voedseltuin IJplein	76	Dutch	30/04/2022

Figure 3: Overview of interviewees

The community gardens HEP and Voedseltuin IJplein were both initiated by local residents and are run by volunteers. Louise from Voedseltuin IJplein mentions that it is necessary to distinguish between the community gardens that are run by volunteers and the ones that are run by professional staff (PC, 30/04/2022). Additionally, the success of a community garden depends on the management (Louise, PC, 30/04/2022). This was also underlined by Lea from HEP who says that a community garden needs 'to have a motor', meaning that it is crucial to have a person who is coordinating the garden).

4.1. Social capital

The results presented here answer the research question "*How do the community gardens explored foster social capital?.* The aspects of social capital that are discussed are social ties and friendships, activities and connections to the neighbourhood.

4.1.1. Social ties and friendships

Voedseltuin IJplein and HEP are both spaces in which people can develop social relationships as well as strengthen their social ties with each other. For Pete and Louise the reason for their membership were mostly for the social aspect (PC, 04/04/2022 and 30/04/2022). Pete mentioned that during his professional life, he did not have many social contacts and after his retirement, Voedseltuin IJplein became the place for him to combine gardening and socializing. On the other hand, Willemiek and Jade stated that their main reasons for participating in the community garden are to grow food and garden (PC, 29/03/2022 and

06/04/2022). Additionally, Lea added that her motivation to start HEP was to grow food in an urban setting (PC, 29/03/2022):

> *"It was really to grow vegetables in an urban situation, not to prove just to do something. And I have to be honest to you, I never realized that if you start a project like that, that you end up with a complete social project."*

As all members participate regularly in the garden activities, the social ties with others have become stronger, even leading to friendships. All of the interviewees agreed that they had formed new friendships, but it was also acknowledged that not all members were interested in making new friends. Jade expressed that her friendships with some members are not just within the space of the garden but also extend to other activities (PC, 29/03/2022).

4.1.2. Activities

For both gardens it was stated that additional activities are offered throughout the year which can strengthen the social networks of members and non-gardeners. HEP organizes once a year an open day to which the wider neighbourhood comes to talk about the plants, have some coffee and cake. Additionally, one of the members sometimes gives concerts with his lute (Jade, PC, 29/03/2022). In regards to gardening activities, members can participate in buying the seeds or picking up the compost which is needed for the plants (Willemiek, PC, 06/04/2022). All three members interviewed also mentioned informal activities such as meeting up for drinks after gardening hours, but that not every member joined.

Voedseltuin IJplein also has an open day once per year to which many residents of the neighbourhood come. At the open day musical performances are shown and food is provided at the barbecue. Moreover, this garden offers regular themed excursions for tourists and people interested in the garden (Pete, PC, 04/04/2022). Voedseltuin IJplein additionally organises excursions to other community gardens in the neighbourhood where members can meet each other and ideas are exchanged (Pete, PC, 04/04/2022; Louise, PC, 30/04/2022).

4.1.3. Connections with the neighbourhood

HEP and Voedseltuin IJplein are both openly accessible by individuals that pass by and some interviewees described that residents of the surrounding neighbourhoods enjoy the garden but also make sure that the garden does not fall victim to vandalism. Pete summarizes this as followed (PC, 04/04/2022):

> *"We have good relations with the neighbourhood. And sometimes there is vandalism, of course, because it's in the middle of the city. But the neighbours are very alert, they*

immediately call the police, and also, specifically Turkish ladies, they do a lot of
picnicking in the garden. The garden, the garden is really more or less adopted by the
neighbourhood and that helps a lot with the safety problems we used to have in the
beginning."

Both gardens have contact with a school nearby. At HEP, the school children are taught about the different vegetables and how to plant them (Jade, PC, 29/03/2022). Pete discussed in his interview that it is planned to set up a water harvesting system together with the school to collect the rainwater, but that there is not enough funding yet to realise this project (PC, 04/04/2022).

Voedseltuin IJplein cooperates further with the dance club Sexyland, which is located beside the community garden:

''But it's a very popular cultural club in Amsterdam with young people, students
particularly. And we have developed a very close relationship with them. So they buy
some of our fresh vegetables. They serve it in the restaurant and we sometimes rent
their building for parties […] The official speeches, etc, will be at the Sexyland
building."

At HEP Lea mentioned that she is invited to many other community gardens to give presentations about how to set up a community garden (PC, 29/03/2022). Jade contrasted that for other members there is not a lot of contact with other community gardens:

"No, for now we don't do it. Because there are not a lot of community gardens in the
Amsterdam city center. I know Lea also has her own garden outside of Amsterdam.
So sometimes she connects to the people from her garden coming to our garden. But
other than that, no, there is not a lot. It could be really good idea to share knowledge
and meeting the people that are interested in the same thing."

4.2. Social inclusion

The results discussed in this section answer the research question *How do the community gardens explored foster social inclusion?* by looking at the aspects of integration of members, cultural diversity, languages and learning Dutch and lastly memberships.

4.2.1. Integration of members

When looking at the social inclusion in both community gardens, it was mentioned by some interviewees that they try to involve people who are dis-empowered. Pete and Lea mentioned that some members are autistic or have mental illnesses like depression, but that they are

integrated into the gardening activities (PC, 04/04/2022 and 29/03/2022). Additionally, many of the members are retired and by participating in the community garden they can connect with other age groups. For Willemiek this is important (PC, 06/04/2022):

> *"It's good that there are also young people around, you know, because they have different ideas, and they come with different things."*

Jade added that the community garden is for many members a way to stay connected to society and to be less alone (PC, 29/03/2022).

4.2.2. Cultural diversity

Community gardens can contribute to bringing people from different backgrounds together which was reflected in the interviews as all members acknowledged that there was a cultural diversity. Especially since the COVID-pandemic, more young people and more nationalities have joined the gardens. At HEP, some of the new members are coming from the United Kingdom, France, Japan or Italy while at Voedseltuin IJplein, members come from the Ukraine, Hungary, South America or the United Kingdom.

However, it was remarked by Pete, Lea and Louise that they wish to integrate more residents with Turkish or Moroccan backgrounds. Even though these residents make up the majority of residents of the neighbourhoods where both gardens are located, they do not participate in gardening activities. Both Lea and Pete stated that they interviewed local residents with Middle Eastern backgrounds and the main reason for not participating was that in Turkey and also Morocco, it is common to have individual plots of land to grow food. In contrast, HEP and Voedseltuin IJplein are both communal gardens where the vegetables are grown as a community. Voedseltuin IJplein decided to accommodate the local residents and constructed some individual plots. Pete described that this step has additionally led to some of the individual plot owners to participate in communal gardening activities (PC, 04/04/2022). HEP on the other hand decided not to add individual lots to their garden but to leave it as a communal space.

4.2.3. Languages and learning Dutch

When looking at the language spoken at Voedseltuin IJplein and the HEP, both Dutch and English are primarily present. Jade and Louise described that for many of the international gardeners it is a way to learn and practice Dutch as they learn the Dutch words for the plants and tools. In contrast, both gardens share generally relevant information such as information

on the website or the newsletter in Dutch and members are asked to translate them for themselves (Lea, PC, 29/03/2022). Louise summarizes (PC, 30/04/2022):

"They have to find their own solution. Because we're all not professionals. So we can't afford to have it officially translated."

For Jade, who is still learning Dutch, it is not an issue to translate the newsletter as online tools make it easy to translate information (PC, 29/03/2022). However, this could lead to the exclusion of some people who cannot understand any Dutch and might not know how to work with online tools to translate.

Lea noted that some information is shared in English with the example that one member passed away and the announcement was added into the newsletter (PC, 29/03/2022).

4.2.4. Membership

The memberships in both gardens are on a voluntary basis and the gardeners can decide how often they want to participate in the gardening activities. At Voedseltuin IJplein Louise described that people can fill in the application on their website to join the garden (PC, 30/04/2022). However, it is generally requested to have some prior gardening experience. People who apply and do not have any experience are put on a waiting list. Furthermore, the applications are made visible whenever spots for new members open up:

"Well, we have the positions online, visible in a database of Amsterdam community. Okay. And we can put them online and offline. So if we need new people, we put them online. And if we think it's enough they go offline for a while." (Louise, PC, 30/04/2022)

Jade described that at HEP one can pass by the garden and participate (PC, 29/03/2022):

"As soon as you start being in the garden for two, three times earlier, the coordinator will ask your email, and she will add you to, to the yeah, as you call it the newsletter, so then you will receive the information. To make sure you know what's going on."

Additionally, Lea added that more people want to become a member of HEP but due to limited space of the garden and the amount of gardening work that needs to be done per week, it is difficult to accommodate new memberships (PC, 29/03/2022):

"I'm not advertising to become a gardener in this garden. Because I'm afraid that in two weeks time, we have to say, Okay, next season, because we don't have enough yet to do."

An issue that Louise mentioned was that many gardeners only come once but then never return to the community garden. It therefore makes it difficult to understand people's motivation for joining Voedseltuin IJplein (PC, 30/04/2022).

4.3. Opportunities for social capital and social inclusion

This last section of the results elaborates on the results of the research question *What are the opportunities to bring more social inclusion and social capital into the two community gardens?*. All interviewees were asked about the opportunities to increase the social inclusion and social capital in their community garden.

Jade suggested that the organisation of workshops with themes such as composting or events to share knowledge would be an opportunity to build a higher social capital. This was also remarked by Willemiek, who indicated that the Green kiosk at HEP was intended to be used to exchange information.

Louise brought up that more contact with schools could be beneficial for Voedseltuin IJplein:

"I think we could invest in contact with schools. There is a secondary school for children who want to get a job in gardening or agriculture. And we should contact those and see what we can mean for each other. I think would be interesting. That could be a good project, I think."

However, it was also noted by interviewees of both gardens that advertising the garden actively for new members and adding additional activities should not be focused on:

"But for me, it wouldn't be necessary to attract people from outside to do all sorts of things, you know. If it comes our way, fine. But to make a big project, the gardening is the big project and everything else, which comes along the way is nice." (Willemiek, PC, 06/04/2022)

5. Discussion

Social capital is built at HEP and Voedseltuin IJplein through strengthening the social ties and forming new friendships (Oxoby, 2009). As Veen *et al.* (2016) argue, social ties can be strengthened between people within community gardens, even if their motivation for participation was not solely social. This difference in motivation was also mentioned in the interviews. Additionally, by connecting to the wider neighbourhood, the social capital is extended further than the vicinity of the community garden (Nettle, 2014; Wang *et al.*, 2015). Besides the work in the garden and meeting for an occasional drink afterwards, this is also enhanced by the various activities such as open days that are offered by HEP and Voedseltuin IJplein (Ding *et al.*, 2020). In order to build a greater social capital as also described by Leyden (2003), some interviewees mentioned the collaboration with schools as well as exchanging knowledge and information in workshops.

Social inclusion is promoted through the integration of members who have mental or physical illnesses, but also by bringing different generations of members together as described by Sasaki (2014). Furthermore, Voedseltuin IJplein and HEP are places where many nationalities and cultures meet. Nevertheless, the degree to which certain cultures could be accommodated with individual plots varied between both gardens. It is important to note that the creation of individual plots at Voedseltuin IJplein have led to the inclusion of members with Middle Eastern backgrounds, but at the same time it created a degree of exclusion for other since only individual members make use of these allotments. At HEP on the other hand, the decision against private lots can lead to an exclusion of members who prefer individual plots. Therefore, it becomes clear that there are cultural differences that enhance the inclusion or exclusion and that community gardens have to constantly negotiate the differences in cultures to build social capital. This supports the research on intercultural gardens by Moulin-Doos (2014) and Schermer (2014).

In relation to language, HEP and Voedseltuin IJplein provide and share their information in Dutch, while in the gardens Dutch and English are spoken. This can lead to both inclusion and exclusion depending on whether members speak sufficient Dutch or English to read and communicate (Wright and Tropp, 2005; Bacquet, 2020).

The access to becoming a member of one of the community gardens can foster social inclusion, too. At HEP people can come by to participate, while at Voedseltuin IJplein it is asked to fill in an application and to have some experience with gardening. Additionally, it became visible that due to the limited space of both gardens it is difficult to welcome more

members. This is also confirmed by the research of Evers and Hodgson (2011) discussing that limited space can act as an access barrier for participation for non-gardeners.

Altogether the results of this research add to past research on social capital and social inclusion (Wright and Tropp, 2005; Evers and Hodgson, 2011; Moulin-Doos, 2014; Schermer, 2014; Veen *et al.*, 2016). Nevertheless, this research has raised the question whether community gardens can ever be fully inclusive.

6. Conclusion

This research aimed to investigate the extent to which the community gardens of HEP and Voedseltuin IJplein foster social capital and social inclusion. Based on the qualitative analysis of semi-structured interviews it can be concluded that both community gardens foster social capital and social inclusion through different means. HEP and Voedseltuin IJplein offer activities as open days and excursions to strengthen the social ties between members as well as with the wider neighbourhood. Furthermore, in both gardens members have formed intercultural friendships. Nevertheless, it became visible that certain factors such as the adjustment to individual plots and language can be inclusive and excluding to some members. The access barrier for potential members can be an additional factor for exclusion.

In both gardens it was shown that there are still opportunities such as workshops or collaboration with schools to increase social capital and social inclusion.

6.1. Reflection of the study

This research has led to a deeper understanding of social capital and social inclusion in the two community gardens in Amsterdam but it has to be acknowledged that there is room for improvement. Initially, this research had the aim to interview multiple community gardens. However, limited responses to my emails from the community gardens, language barriers and conducting the interviews online led to a change in the data collection process. In the end, members of only two community gardens were interviewed and interviews were conducted both online and in person. Furthermore, out of all interviewees only one person was not from the Netherlands. Therefore, the outcomes could have been different if more international members were interviewed.

Another improvement for this research is to combine semi-structured interviews with participant observation to gain an even deeper understanding of the social structures of a community garden.

6.2. Recommendations for further research

This research about social inclusion and social capital added to the existing literature as it found similar patterns as discussed by various researchers. However, since this research was based on qualitative methods and only looked into two community gardens, it is not possible to make generalisations about all community gardens in Amsterdam. Additionally, both community gardens have been established for some years and could be seen as successes. Therefore, it would be recommended to compare this study with other community gardens in the city regarding social inclusion and social capital, but also in terms of the success factors. Another recommendation for further research is to investigate how social capital is related to the organisation, management and operation of a community garden.

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Appendix 1: Interview guide

Opening:

- Introduce myself, what I do + the background of my bachelor project
- Ask the participant if I can record the interview + that all data will be treated confidentially as described in the informed consent sheet

1. How old are you?
2. Where are you from?
3. How long have you been living in Amsterdam?
4. How long have you been a member of the community garden x? (add the name of the community garden)
   a. When did you initiate the community garden? (for initiators)
5. How did you find out about this community garden?
6. Why did you decide to become a member of community garden x? (add the name of the community garden)
   a. Why did you decide to initiate the community garden? (for initiators)
7. How often do you come here to participate in activities?
8. What do you like the most about this garden? (e.g. meeting other people, gardening, relaxation,…)

Social inclusion and social capital

9. To what extent does this community garden bring together people from different backgrounds?
   a. Little extent: do you wish that there was more cultural diversity within in the community garden?
   b. Great extent: How connected do you feel with the other members of this garden?
10. What languages are spoken at x? (mention name of CG)
11. How and in which language is important information shared?
12. Are there internal activities organised to get to know other members?
    a. If yes, can you give examples?
    b. If no: do you think there should be more focus on such activities?
13. Have you formed any friendships with other members?
14. Are there any activities organised where members of this community garden can connect with other community gardens? (e.g. open days, festivals, workshops)
    a. If yes, can you give examples?
    b. If no: Would you like to have a connection with members of other community gardens?
15. What do you think are opportunities to bring more people together in this community garden?

Closing:

- Do you have any questions or concerns that you would like to discuss?
- Thank you for your time and participation in this research

Appendix 2: Research project information sheet

1. Research about social inclusion and social capital in Amsterdam's community gardens

The study about social inclusion and social capital in Amsterdam's community gardens is the central theme of the bachelor thesis written by Thalina Siebert (t.siebert@student.rug.nl), bachelor student at the Faculty of Social Sciences of the University of Groningen.

2. Purpose of this research

Community gardens are becoming more popular in Amsterdam and can bring together people from different backgrounds. Therefore, this research aims to explore the extent that community gardens in Amsterdam foster social inclusion and social capital.

Social inclusion can be described as people's ability to access and participate in social and political networks. Moreover, social inclusion can be seen as a process of (re-)building social ties by promoting opportunities for all people to access social projects. Social capital can be defined as the network between individuals of the norms and values that are shared.

3. Participation in the research

The people who have been asked to participate in this research are a member of a community garden in Amsterdam. Participants, who would like to be part of this research will be interviewed either face-to-face or online and the researcher asks to record the audio of each interview. Participation in this research is voluntary and as a participant you can withdraw from this study up to three weeks after the interview. Further, questions can be asked at any point of the research study by contacting Thalina Siebert.

4. Layout of the interview

The interviews will be conducted in English and the participants will be asked questions about their membership and their activities in the community garden. Additionally, questions about the connectedness with other community garden members will be asked. Lastly, opportunities for further social inclusion and social capital will be explored. Participants can also give additional information that they think might be important for the framework of this research.

5. Protection and confidentiality of the collected data

The data that will be collected during the interview will be only analysed by Thalina Siebert and the anonymity of each participant will be respected with most effort. The actual names of the interviewees will be protected and will be changed when references are made in the results of the research. All interview notes and transcripts will be stored in a secure location by Thalina Siebert and will not be shared with other people.

Appendix 3: Agreement to participate

university of groningen / faculty of spatial sciences / research ethics committee

Agreement to participate - Research Ethics Committee (REC)
in the bachelor project:

Title: Social inclusion and social capital in Amsterdam's community gardens

Community gardens are becoming more popular in Amsterdam and can bring together people from different backgrounds. Therefore, this research aims to explore the extent that community gardens in Amsterdam foster social inclusion and social capital.

- I have read and I understand the information sheet of this present research project.
- I have had the opportunity to ask question about the bachelor project. I am satisfied with the answers I have been given.
- I understand that taking part in this study is voluntary and that I have the right to withdraw from the study until three weeks after the interview.
- I understand that I can decline to answer any individual questions in the study.
- I understand that my participation in this study is confidential. Without my prior consent, no material, which could identify me will be used in any reports generated from this study.
- I understand that this data may also be used in articles, book chapters, published and unpublished work and presentations.
- I understand that all information I provide will be kept confidentially either in a locked facility or as a password protected encrypted file on a password protected computer.

Please circle YES or NO to each of the following:

I consent to my interview being audio-recorded	YES / NO
I wish to remain anonymous for this research	YES / NO

If YES
My first name can be used for this research	YES / NO

OR
A pseudonym of my own choosing can be used in this research	YES / NO

If YES
Please write down your chosen pseudonym...

"I agree to participate in this individual interview and acknowledge receipt of a copy of this consent form and the research project information sheet."

Signature of participant:_____Date: _____

"I agree to abide by the conditions set out in the information sheet and I ensure no harm will be done to any participant during this research."

Signature of researcher:_____ Date: _____

Appendix 4: Coding tree