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Decision-Making and Motivation of community gardens in the city of Basel

Small bachelor thesis in social sciences and humanities of the master course in environmental sciences from ETH Zurich

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1 Introduction

All over the world, there is a trend to urbanization. Half of the global population was living in cities in 2008, with predictions suggesting that around 70 percent of the global population will be living in urban areas in 2050 (United Nations, 2014). This trend is also apparent in Switzerland. Already today two-thirds of the Swiss population is living in the five big agglomeration areas (Zurich, Geneva, Basel, Bern and Lausanne) (Federal statistical office, 2014). As population is growing in urban areas, space is a very limited resource and green spaces have become especially scarce. A particularly difficult situation is given in the city of Basel because it is tightly surrounded by other nations or cantons and does not have many development options. This increases the pressure on green spaces in Basel even more. Still, green spaces should be widely present in urban areas like Basel because several studies have shown that availability of nearby nature for urban population has many benefits. For example, it leads to more social interaction among young and adults (Coley, Kuo & Sullivan, 1997), a greater sense of community among older adults (Kweon, Sullivan & Wiley, 1998), greater feeling of safety (Kuo & Sullivan, 2001) and less aggressive, impulsive and violent behavior (Kuo & Sulivan, 2001). In addition, more green common space in residential areas strengthens the relationships between neighbors by providing opportunities for informal social contact (Kuo, Sullivan, Coley & Brunson, 1998).

In the city of Basel, green spots are mostly provided by public parks, trees along the streets; and private, allotment, and community gardens. For this thesis, I would like to focus on community gardens because they provide an open access alternative for the urban population to cultivate their own food and undertake social group activities. The main difference between a private (including allotment gardens) and a community garden lies in the terms of ownership, open access and a high degree of democratic control (Ferris, Norman & Sempik, 2001). Several studies highlight the benefits that community gardens can provide for the urban population. They promote social interaction between garden members, which can help build stronger communities (Malakoff, 2005); they increase learning about nature and plants, promote physical activity and lead to a healthier lifestyle by providing cheap fresh fruits and vegetables (Armstrong, 2000); and

they reduce environmental impacts because imported food can be substituted by local fresh food (Harris, 2009).

With this thesis, I would like to investigate elements that motivate people to manage and to engage in community gardens in Basel. In addition, I would like to investigate what factors play a role on decision making of community gardens in Basel. The topic is related to a current research project called Bettergardens, which is led from the Research Institute of Organic Agriculture (FiBL) in Frick. The research project Bettergardens tries to identify decision factors and influences on the management of city gardens. Furthermore, one of the primary goals is to assess the soil quality, biodiversity and social value of city gardens.

As there is not much research on motivations and decision influences on community gardens, the overall goal of this thesis will be to gain a better understanding of the motivations of participants of community gardens and about decision influences on community gardens. To address this topic, two research questions were framed.
The first research question is:
"What are key motivations for participating and managing community gardens?"
The second research question is:
"What factors influence decisions in community gardens?"

To answer these questions, five qualitative semi-structured interviews were conducted with participants of different community gardens in Basel. All five interviews were recorded in Swiss German and were transcribed into High German for the analysis. The statements of the participants were categorized with qualitative analysis software. Chapter 2 illustrates the used methods and the sampling of the interview participants. The results from the analysis and the discussion will be presented in chapter 3. A conclusion of the results will be drawn in chapter 4.

2 Methods

In this chapter, I would like to explain more about social research in general and about the used methods. Social research uses scientific methods to investigate individuals, societies and social processes. The knowledge is produced by these investigations (Schutt, 2006). In social research, there are two distinct method orientations: quantitative and qualitative. Quantitative methods record variation in social life via surveys and questionnaires and try to organize the produced data. Quantitative data are either numbers or attributes that can be ordered in terms of magnitude (Schutt, 2006). Qualitative methods, such as focus groups and interviews, try to capture social life from the participants experience rather than just try to categorize it. These methods do not have a direct numerical interpretation but allow research that is more exploratory (Schutt, 2006). I decided to use the qualitative semi-structured interview method because the chosen research questions (see. Chapter 1) have an exploratory character.

2.1   Semi-structured interview

The semi-structured interview approach allows more flexibility in following up on certain questions than a structured interview. This type of interview allows much more space for the participant to answer on their own terms but still provide some structure for the interviewer to cross compare the interviews afterwards (Edwards & Holland, 2013). In addition, it does not only just provide answers, but also the reasons for the answers (FAO, 1990).

The interview guideline consisted of 13 main questions with some small follow up questions (see. Appendix). The first questions allowed the interviewer to get a first overview of the concept and the ideas behind the community garden. Then some questions about motivation, decision influences and problems managing the community garden were raised. The last questions tried to close the conversation by asking about the changes that had occurred since the start of the community garden. The interview guideline was elaborated together with the FiBL so that the findings would be compatible with the ongoing research project: Bettergardens, that will mainly focus on the cities Bern, Lausanne and Zurich.

2.2 Sampling

A good sampling approach is important for all social research and should be appropriate for the aims and design of the study (Schutt, 2006). Since there are few community gardens in Basel, the selection of the sample was predetermined. I tried to focus on different community garden concepts to be able to represent as many different opinions as possible, and thus followed a maximum variety sampling strategy (Patton, 1990). Some gardens were focusing mainly on bringing nature closer to the urban population; others were focusing on dealing with social problems, and others were focusing on environmental education for children. In table 1, more information about the conducted interviews is shown. The person code corresponds to the statements in chapter 3.

Person code	Date	Community garden location	Length (min:sec)
B1	25.01.2016	Iselin	41:12
B2	25.01.2016	Am Ring	52:20
B3	26.01.2016	St. Johann	36:10
B4	27.01.2016	Wettstein	30:16
B5	29.01.2016	Gundeldingen	32:53

Table 1: *Detailed information of the interviews*

Before each interview, the participant was asked for permission to record the conversation on an audio device and to use the statements for this thesis. All interviews were conducted in Swiss German because, for all participants, it was their native language. Later, the interviews were transcribed into High German using the qualitative analysis software "MAXQDA". All interviews were recorded during the last week of January 2016 in Basel. The length of the interviews was from the shortest, 30 minutes, up to the longest, 52 minutes. The total recorded material had a length of about 192 minutes.

2.3 Transcription

As all interviews were recorded in Swiss German, it was necessary to transcribe them all into High German. Some basic transcription rules have been followed so that the generated transcripts are consistent and understandable:

1. The transcriber tried to be as accurate as possible to the words of the respondent.

2. Breaks in transcription are marked with (…).

3. Affirmative statements were not explicitly transcribed.

4. Special sounds like laughter or sighs were marked in brackets.

5. The interviewer is marked with an "I" and the respondent with a "B" and their person code number, for example ("B3")

The transcription was quite a time demanding task. For every 10 minutes of interview material, roughly 30 – 40 minutes were used to transcribe them into a written form. The transcription was performed directly in the qualitative analysis software "MAXQDA".

2.4   Data analysis

For the analysis of the transcripts, the qualitative analysis software "MAXQDA" was used. The analysis is based on the qualitative content analysis (Mayring, 2010). It gives the qualitative data more structure and allows categorization of the individual statements by assessing specific codes. Through the categorization process, the codes were constantly revised and new sub-codes were added to maintain an optimal structure. Similar statements were summarized under the same code and the frequency was automatically counted by the software. After the categorization process, the individual statements were used to illustrate and discuss the different codes in chapter 3.

3 Results & Discussion

This chapter presents and discusses the results of the analysis with the qualitative software "MAXQDA". The presented results are part of the categories built with the analysis software. A sample how the category coding looks is shown in the Appendix. The statements of the participants have been left in High German for simplicity. Interpretation of the results for the motivation part is guided by incentive theory (Rani & Lenka, 2012). Incentive theory states that motivation and behavior of individuals are influenced by beliefs, such as engaging in activities that are expected to be profitable. People's actions have social effects that means if an action is positively received people are more likely to act in this manner, or if negatively received people are less likely to act in this manner. Incentives can be either tangible or intangible rewards as a result of an action. Concerning the garden context a tangible incentive is getting paid for the management or to yield an income with the crops. An intangible incentive is the received acknowledgement among the group or the possibility to create something new.

3.1　Motivations

Contact with nature motivations

The reasons why people are motivated to manage and engage in a community garden are diverse. Some main motivations have been identified. One point that was mentioned often was the aspect of enjoying nature. Without long travel distances, participants can enjoy nature inside the city borders. *„Was gibt es schöneres als innerhalb von 5 Minuten mit dem Velo in einer ganz anderen, paradiesischen Gartenwelt zu sein. (…) Ich habe als Stadtmensch die Nähe zur Natur vermisst (B2)."* The short travel distances involved, and the consequently frequent contact with the processes in the garden enabled gardeners to observe and thereby learn. *„Es ist einfach schön den Naturkreislauf zu beobachten und selber aktiv mitzuwirken (B2)."* The key connection here is that the knowledge about how to intervene comes from observation. The respondent expresses a motivation that they enjoy learning by observing so that they can become actively involved in the growing process, and observation is enabled by proximity in which the different phases of the cycles can be observed. The end result of the learning process, and the subsequent observation based interventions, is that the gardeners gain the satisfaction of harvesting.

„Es gibt einem ein total anderes Gefühl, wenn man selber seine Tomaten ernten kann, welche man zuvor mit viel Aufwand selbst angezogen, gesetzt und gegossen hat. Ein wunderbares Erlebnis (B2)." The key words in this statement are 'selber seine'. That implies ownership that goes beyond what would be experienced by buying them. Not only do they belong to the respondent, but he or she also owns the process that gave them the qualities that they have. This feeling is an intangible benefit that motivates the respondent: self-described as a wonderful experience.

Social motivations

For some of the participants, the aspect of enjoying nature combined with social group activities was important. Working together and creating something new together is essential for them. *„Der andere Punkt ist das ich mich auch selber gerne im Garten oder in der Natur betätige und das ich die Zusammenarbeit in der Natur sehr schön finde (B3)."* The intangible benefit of pleasure gained by act of working together with others is enhanced by engaging in a joint activity in a natural setting. The implication that working together with others and being in nature would each give feelings of enjoyment, but that the whole is greater than the sum of its parts. This notion is supported by the following statement that links the enjoyment to the natural outcome. *„Man ist draussen, in einer Stadt wo es wenig Naturfläche hat und kann zusammen etwas auf die Beine stellen. So kann aus einer kleinen brachen Fläche etwas Tolles entstehen. Früher war der Garten sehr verwildert und heute ist es eine kleine Oase (B3)."* The contrast between the built environment and the natural area in which the collaborative work is taking place appears to be a significant part of what gives the satisfaction. Despite this contrast, there is evidence that this respondent is motivated to create a degree of order. The word 'verwildert' has a clearly negative connotation, and the desire was to create an oasis, that can not only be created collectively, but presumably can be enjoyed collectively.

Motivation by employment

For some participants it was not only the fact to enjoy nature but furthermore it was part of their job. They reported that it was important for them to give back some understanding of nature to the urban population. *„Ich bin gelernte Landwirtin und ich war schon länger auf der Suche nach einem Bauernhof in der Region Basel (B4)."* Dann kam die

Anfrage vom Urban Agriculture Network Basel, ob ich nicht Lust hätte hier mitzumachen (B4)." Having a venue where one can contribute with its own knowledge and expertise does include the intangible incentive of active contribution and the tangible incentive for earning money. The words 'in der Region Basel' express that regional contribution is wished which is in line with the concept of sustainable agriculture. One respondent expressed the importance of feeling appreciated. *"Dann kam die Anfrage vom Urban Agriculture Network Basel, ob ich nicht Lust hätte hier mitzumachen (B4)."* Being asked for doing a job because of its own knowledge and expertise gives a feeling of appreciation which is a strong motivation to accept such an offer. *„Eines meiner Herzanliegen ist es den Leuten in der Stadt die Nature, die ganzen Kreisläufe und den Lebensmittelanbau wieder näher zu bringen. Ich finde es wunderschön, wenn man so viele Leute inspirieren kann (B4)."* The key word 'Herzanliegen' expresses the strong wish of the respondent to bring her understanding of sustainable food production and natural cycles closer to urban people. The great feeling by inspiring many people with the respondent's own knowledge is a strong motivation for managing such a garden. The tangible benefit of earning money via employment appears to be less valued than the intangible benefit of inspiring people.

One of the participants said it was a dream to work in such a project. Not only you can work outside all the time, you also can bring some understanding of sustainability and nature closer to children of the city. *„Es ist mein Job (lacht). Es ist eine Traumstelle, da ich draussen arbeiten darf und sehr viele Gestaltungsfreiheiten im Garten und mit den Kindern habe (B5)."* The reaction of laughter to the question about motivation clearly highlights the connection between work and enjoyment. The word 'Traumstelle' underlines the strong feeling that the respondent connects with her work. Not only does it provide a livelihood but the job also allows the respondent to do things at work that give a good feeling, such as working outside every day, being able to bring in own ideas for the garden and working with children. *„Ich finde es schön, da ich viele Sachen mit den Kindern machen kann, die in meiner Kindheit einfach normal waren und jetzt nicht mehr selbstverständlich sind. Es ist aber halt auch schwierig in einer Stadt (B5)."* The respondent indicates receiving a good feeling by enabling city children to experience nature like she did in her childhood. The word 'selbverständlich' underlines that this naturalness of doing things in nature has somehow changed for today's children. The

respondent believes that the urban environment no longer satisfies crucial children's needs such as exploring things on their own. Giving them something back and showing them things in the garden is an important intangible motivation.

Motivation by studies

Professional work is not the only motivation for engaging in such a community garden project. One of the participants initiated a community garden project for educational reasons. With such a social community garden concept, the participant tried to abolish fears and preconceptions against refugees and tried to promote integration. *„Zu dieser Zeit war ich gerade im Endspurt meines Studiums in sozialer Arbeit und ich habe mir dann überlegt, dass ich das Projekt als meine Bachelorarbeit verwirklichen könnte. (…) Mein ursprünglicher Gedanke war etwas Aktives gegen den Widerstand der Asylunterkunft zu tun. Ich wollte probieren durch dieses Projekt Brücken zu schlagen (B3)."* The main motivation lay in the accomplishment of a study project, but the respondent has strong feelings against the opposition for an asylum center which gave her the incentive to combine study work with personal beliefs. The words 'Aktives gegen den Wiederstand tun' and 'Brücken zu schlagen' underline her supportive position for the asylum center and the integration of refugees. *„Ich bin überzeugt davon, dass wenn man Menschen persönlich kennenlernt, Synergien schafft und Gemeinsamkeiten erkennt und somit Ängste und Vorurteile beseitigen kann (B3)."* Again it becomes clear that her motivation for initiating such a garden project lay in her strong belief of reducing fears and prejudices by personal contact. 'Synergie' is a key word because it describes that the combined effects of two or more people working together is greater than the sum of their individual effects. That is exactly what she wanted to achieve with the community garden: creating added value.

Political motivation

Political aspects were also the reason for other participants to join a community garden project. From protesting against a certain issue by only speaking out against it, they wanted to actively contribute something. *„Ein weiterer Punkt ist sicher auch etwas politisch motiviert. Man geht von der kritisierenden Haltung über in das aktive Machen, auch wenn es nur etwas ganz kleines ist (B2)."* Actively doing something against a

perceived problem is much harder than just criticizing. The respondent perceives the even a small contribution as important. The fact that a garden is a place where things change and grow is ideally suited for the context of political protest because it adds a visual component to the protesting. *„Natürlich verändert sich die Welt nicht grundlegend, wenn wir ein paar urbane Gärten haben, jedoch ist dies ein erster Schritt, für ein ganz wichtiges Thema zu sensibilisieren und einen ersten praktischen Handlungsansatz zu bieten (B2)."* Again the word 'sensibilisieren' is mentioned, which indicates the essential incentive of trying to make people understand why urban gardens are important. A garden is a first action approach where people can observe and create things in a casual atmosphere.

3.2 Decision-making

Collective decision-making

Decision-making in community gardens is often a collective process. Members of the garden decide what they want to cultivate and how they want to shape the garden. For most of the participants, collective decision-making is important. *„Wir entscheiden vor allem als Gruppe was wir anpflanzen möchten und was es zu tun gibt (B4)."* The word 'Gruppe' implies the strong feeling of membership to the garden. Cultivation and duties are collectively decided which is in line with the concept of a community garden.

One participant said that they try to promote collective decision making within the group but sometimes it needs a neutral mediator. *„Eigentlich ziemlich kollektiv, wenn jedoch etwas ganz aus den Fugen gerät, dann berufe ich eine Sitzung ein. Meine Rolle bei den Sitzungen liegt vor allem im Moderieren und probieren eine gute Diskussionskultur zu ermöglichen. Alle sind bei uns gleichberechtigt und können einen Beitrag zum Garten leisten (B1)."* Mediation is a crucial attribute for decision-making in a community garden because lots of people are involved in managing one garden collectively. Every person has their own ideas of managing a garden and, in addition, the knowledge among the members is diverse. Handling such problems can be hard but the respondent states her strong belief that everybody should have equal power and should be able to contribute their part to the garden. The acceptance and trust of all garden members is important to be a successful mediator.

Individual decision-making

One participant also mentioned that how the whole garden looks like is a collective decision but that what garden members each want to cultivate is an individual decision. *„Es gibt ein bis zwei Bodenflächen die wir zusammen bearbeiten im Garten, jedoch hat jede Teilnehmerin eine eigene Box, in der sie ihr eigenes Gemüse anpflanzen kann. (…) Der Vorteil ist, dass sie so ihr eigenes Gemüse anpflanzen können, was viele bevorzugen (B3)."* A good solution of avoid problems in collective decision-making is by giving each member their own patch for cultivation. This is more space intensive but allows the members to cultivate what they like without any discussions. Hence the important community feeling is still present.

3.3   Managing the garden

All participants noted that they only use biological methods to manage the garden. For most of them, the quality of the crop is more important than the quantity in the end. *„Also vor allem das alles biologisch ist. Dann achten wir darauf, dass wir eine grosse Vielfalt anpflanzen und weniger das wir viel Ertrag generieren. Uns geht es mehr darum den Kindern die Vielfalt der Pflanzen zu zeigen und was man alles anbauen kann (B5)."* The importance lies on showing the children the natural diversity. The respondent represents the attitude that diversity is more important than yielding a high outcome. Learning about natural diversity may help children to be more open for social diversity. *„Für uns ist es wichtig, dass die Kinder sehen wie z. B. eine Kartoffel wächst, als das wir möglichst viele Kartoffeln ernten können (B5)."* The visual observing of how a potato is growing confronts children with how long natural processes need and teaches them to be patient. In this natural context, efforts are made to enhance children's understanding for a moderate use of resources by showing them that diversity is more important than cultivating as much as possible.

One participant said that to establish a natural biological cycle was very important. Like this, the members of the garden can learn that nature can be very efficient without too much human intervention. *„Im Ganzen geht es darum den Kreislauf zu schliessen, von der Samengewinnung bis hin zum Setzling oder auch das sich die Pflanzen aussamen und dann nächstes Jahr wieder von selber gedeihen (B4)."* Again, like in the motivation part, the

respondent is referring to the importance of closing the natural cycle. The impression is that it is not only a method how to manage the garden but moreover a philosophy. The plants should regrow without too much human intervention each year. Compared to the urban human intensive context, the garden should show another way of living. *„Und dann haben wir verschiedene Methoden für den Bodenaufbau und die Fruchtbarkeit. Von Mulchsystemen bis hin zu möglichst wenig Bodenbearbeitung, Mischkulturen und natürlich einfach eine möglichst grosse Biodiversität (B4)."* Establishing natural cycles does need a lot of effort and knowledge; especially at the beginning. Again the word 'Biodiversität' is mentioned which states the wish to have many different plants and species.

One participant mentioned that they had once tried a conventional management method by buying the seedlings from a big store. However, they did not have so much success with it. *„Also wir haben nur Bio (lacht). Wir haben einmal das Experiment gemacht und haben Setzlinge aus dem Bau- und Hobbymarkt geholt, jedoch war das nicht so erfolgreich, da alle Pflanzen eingegangen sind (B3)."* The respondent's reaction shows that biological management is a logical consequence for such urban gardens. Having such a garden in an urban area implies somehow that it is wished to bring nature into the city, so the goal of intensive cultivation is unimportant.

Another important point for all participants was the 'learning by doing' approach. Without much knowledge about gardening, people should have the ability to try out different things. Failing is not considered to be bad as long there is a process of learning. *„Zum einen möchten wir gerne die Möglichkeit haben, auch mal etwas auszuprobieren und zu sehen was dann passiert, ohne sich zuvor gross einzulesen. Also einfach nach dem try and error Prinzip zu lernen (B2)."* Having a place where people can try out different things is one important element of a community garden. The word 'try and error Prinzip' states that a garden is a place where actions are not suddenly seen and hence mistakes are present. As gardening is not an exact science, being able to make mistakes and learning are crucial elements.

3.4 Influences on decision-making

Members as actors

Several factors influence decisions in a community garden. An important influence of decisions comes from the community garden itself. All participants mentioned that the needs and demands members of the community garden had a big influence on the decisions of the garden. *„Auf jeden Fall klären wir den Bedarf und die Bedürfnis der Teilnehmern, also was können wir pflanzen und was können wir überhaupt pflegen (B1)."* The second part of the statement highlights that wishes of the members are important but moreover their expertise, knowledge and especially time also play a role in what is at all possible to cultivate. This point gets often forgotten, but is essential in what is feasible in a community garden.

Some participants also mentioned that there is always some turnover of members from the garden that leads to a constant reevaluation of demands and needs. *„Ausserdem bin ich natürlich abhängig von dem Interesse der Bewohnerinnen der Asylunterkunft, welches ein stetiges Abklären benötigt, da es häufige Wechsel im Asylheim gibt. (B3)"* A garden is something with a long-term orientation. Having these frequent changes in the garden structure is not optimal and leads, as mentioned, to more evaluation. This additional effort can become tiring.

Foundations as actors

The influences are often determined by the concept or idea of the community garden. All of the gardens included in this study are financed by foundations, with participants describing that the foundations had little to say on how the garden was managed but are crucial for financing. *„Ich bin eigentlich sehr autonom. Die Stiftung muss einfach immer wieder die nötigen Gelder zur Verfügung stellen. Wenn das Geld gesprochen ist, bin ich sehr frei und muss einfach schauen das wir genügend Kinder mit dem Garten erreiche. (B5)."* Being independent for the management of the garden seems to be important. The word 'autonom' underlines the ability to decide freely. However, the sentence 'Die Stiftung muss einfach immer wieder die nötigen Gelder zur Verfügung stellen' describes that the process of financing is short-termed and brings some constraints with it. The consequence of what happens if they do not reach the required amount of children

seems to always be present in the mind of the respondent and might however have a more important influence on her decision than is thought.

City as actor

The influence of the city and their regulations is somehow very unequal for each community garden. The ownership of the garden plays a crucial role. When the garden is on private property, the city is perceived to have a small influence. *„Die Stadt hat eigentlich gar kein Einfluss, da der Garten in privatem Besitzt der Stiftung ist (B5)."* This restricted influence by the city is perceived as something good because the garden can be managed with few constraints, but the dependence on the foundation is higher as they own the property.

For other participants there were some regulations from the city that they had to follow. However, most of them had no problem with the regulations. *„Die Stadt hat uns vorgegeben keine Bäume zu pflanzen, da es ja eigentlich als Zwischennutzung gedacht ist. Aber sonst haben wir eigentlich keine expliziten Regelungen (B4)."* The rule from the city to plant no trees underlines the temporary state of the garden. Especially in the context of this short-termed future, establishing a natural cycle for the garden seems unfavorable.

Some participants mentioned that the city and their regulations have a big impact on their decisions. They described them as sometimes being a little bit too bureaucratic. *„Man ist sehr abhängig von den Entscheidungen der Stadt. Zu Beginn musste ich ihnen ein Konzept präsentieren, meine Ziele und Gründe erläutern. Dann kam das Okay für das Projekt (B3)."* The respondent states that the influence of the city on decisions has a big impact on the garden. She needed to present her concept and ideas. The dependence is explainable because the garden lies on property belonging to the city. *„(…) Wenn es dann neue Ideen gibt, muss ich immer zuerst die Stadt anfragen und wenn sie das nicht wollen, kann man dagegen nichts machen (B3)."* Being constrained with her ideas for the garden seems to be frustrating. Her strong belief of doing something worthwhile for the local community increases the frustration even more as the city prevents development of the garden.

3.5   Problems

The participants of the community gardens were also facing some problems. The reason for these problems was diverse and not all were of the same severity. One participant mentioned that they realized after some years that the soil quality was shockingly bad. As a consequence, the garden had to be closed temporarily. *„Ja also sicherlich die Bodenqualität. Eine wichtige Motivation von mir war, dass man durch einen eigenen Garten genau weiss von wo das Gemüse kommt, also nahe Wege, dass es sicher gute Bio-Qualität hat, in der Erde und nicht in einer Nährlösung wächst und dass es nicht mit künstlichem Dünger oder Pestiziden behandelt wurde. Und dann herauszufinden, dass die Bodenbleiwerte besorgniserregend sind, hat einen sehr faden Beigeschmack und hat mich dann schlussendlich auch dazu bewogen aus diesem Gartenauszusteigen. Das war wirklich ein sehr trauriger Abschluss für mich (B2)."* The aspect of doing something healthy by knowing how the food is produced is very important for the respondent and an essential motivation why she was involved in a community garden. Learning that the consciously organic diet was not necessarily healthy because of the shocking poor soil quality led, in the end, to the phasing out of the garden. The word 'faden Beigeschmack' has a special meaning because it describes her strong feeling of disappointment and in addition, the actual 'bad' taste of the polluted food. This example shows that, especially in city gardens, there should be a constant evaluation of soil quality.

For some participants, the recruitment of new members was hard. The reason lies in the non-compulsory character of the community garden that often leads to little feeling of responsibility. *„Wir wären froh, wenn mehr Leute bereit wären regelmässig im Garten mitzuarbeiten oder auch Lust hätten Verantwortung zu übernehmen. Es könnte eigentlich wirklich immer mehr Leute geben, die Lust hätten mitzuarbeiten. Aber es ist jetzt auch nicht so, dass wir viel zu wenige Leute haben, jedoch schwankt es halt immer sehr stark (B4)."* The word 'Verantwortung' is key because it is coupled with some duties. Having the benefits of being active in a garden are wonderful but also having more responsibility for the garden seems to be not so desired. A well-managed garden needs time and extra effort: two things which have become rare in our modern society.

One participant also mentioned problems with the regulation by the city. The city does not actively support development of the garden, but in contrast, slow down the development of the garden with their regulation. *„Für mich ist es sehr schwierig zu verstehen, das zum Teil die Entwicklung des Gartens gebremst oder verhindert wird, obwohl ich und viele andere, dies aus freiwilligem Interesse und Engagement machen* (B3)." Again her frustration about the restraints by the city is visible. An important point is that the reasons for managing the garden are based on voluntary involvement which seems to enhance the feeling of incomprehension for the stance taken by city. *„Die Begründung lautet oft, das es unfair gegenüber anderen Asylunterkünften sein könnte, welche solch eine Möglichkeit nicht haben. Ich verstehe dieses Argument ja schon, aber eine solche Fairness gibt es im Asylwesen sowieso nicht, da viele der Flüchtlinge ganz verschiedene Bemühungen und Wege auf sich genommen haben, um hier in die Schweiz zu kommen (B3)."* The justification of the city that it would not be fair for other asylum centers does not satisfy the respondent. She mentioned that there is no fairness at all in the endeavors of refugees to escape. The argument is that it is better to help some of them rather than just do nothing at all; even if that creates some inequality.

The financing of the garden was a big problem for some of the participants. They depend on money from the foundations but the future of these gardens is not safe in the long term because they are being re-evaluated each year. *„Ja die Finanzierung. Die Finanzierung ist nur bis Ende Jahr geregelt. Die Stiftungskommission entscheidet diesen Frühling wie es weiter geht. (…) Das ist im Moment meine grosse Sorge, dass ich nicht weiss wie es Ende Jahr weiter geht, für mich aber auch vor allem für den Garten. Es wäre schade wenn er zugeht (B5)."* Concept of projects can be great but when there is not enough funding, they remain concepts. Not only is there fear of losing her job but there is also the worry that the children may lose their green space within the city. Again the short-term decision-making and the general dependency of the foundations becomes present. This situation is not compatible with gardens, which are inherently long term.

3.6 Difference between private and community gardens

All participants valued one point of the community garden as especially different from a private garden: People can work and take decisions together. This promotes social

cohesion of the members of the group and strengthens the feeling of community. *„Der Unterschied ist sicherlich, dass man in einem Gemeinschaftsgarten wie der Name schon sagt, Gemeinsam an etwas arbeiten kann, das Wissen gesteigert und vernetzt werden kann, Entwicklung fördert und das das gemeinschaftliche Bewirtschaften dazu führt Brücken zu schlagen (B3)."* Again the words 'Gemeinsam' and 'Brücken schlagen' show that the respondent underlines the community aspect of the garden. Interconnection, sharing of knowledge and creating something together are essential elements of a community garden.

One participant said that rising awareness for sustainability in the city is a crucial role of a community garden. The urban population should have more awareness of issues such as organic cultivation and healthy nutrition. *„Für mich ist der wichtigste Punkt die Sensibilisierungsarbeit für eine nachhaltige Ernährung. Das beinhaltet auch Fragen wie, wie gehe ich nachhaltig mit dem Boden um, was ist saisonal, was bedeutet biologisch, wie kann ich mich engagieren und sonstige Ernährungsfragen. Das tolle an einem Garten ist, das man all diese Fragen und Inputs, gratis auf den Weg mitbekommt, einfach nur indem man gemeinschaftlich ein bisschen gärtnert. (B2)"* The awareness for sustainable diet is shared between the garden members. Many issues such as seasonality of vegetables or sustainable soil management are raised and discussed among the group. This sharing and creation of common knowledge is seen as an advantage of a community garden.

Another point was the open access of community gardens. They are mostly open to everybody who wants to participate and some of them have even a public park character. *„Beim unserem Garten ist es halt noch speziell, da der Garten immer offen ist, also wie bei einem Park, was bei Privatgärten nicht der Fall ist. Das finde ich schon ein sehr grosser Unterschied. Die Stadtgärtnerei kann das nicht so gut nachvollziehen (lacht) (B4)."* As cities are tightly developed the aspect of green open space seems very important. In contrast to private gardens, community gardens provide nature for more people on the same amount of land, which is especially helpful in cities that often lack of space. The smile at the end of the statement implies that the city somehow misjudges what will work within the city, and that the 'open' concept works well.

4 Conclusion

Community gardens provide precious green space in tightly built cities. Not only do they provide open green space but they are also a place where people from all ages and backgrounds can meet and socialize. Growing one's own food raises awareness for sustainability of food consumption and land use. Concepts of community gardens are very diverse and can address different social problems within a structured frame.

The main motivation for being active in a community garden is to enjoy and experience the beauty of nature. Hence, the group work and socializing aspect of the community garden is essential. Decision influences are diverse and context dependent. Three main actors (members, foundations and city) have an impact on community gardens. Privately owned community gardens for example do not have many city regulations. In contrast, community gardens that lie on public ground are very dependent on the regulation of the city. Members are crucial for collective decision-making and they exercise control on how the community garden is managed. Foundations are essential for maintenance of the garden but have little influence on decision-making within the garden.

In my perspective, community gardens will play an important part for providing open green space in near-future cities. People engaging in community gardens are highly motivated and feel the need to bring back awareness for sustainability to the urban population. Keeping the garden running is not always an easy task. This is why there should be more incentives for people to actively engage in community garden projects.

List of references

- United Nations. (2014). World Urbanization Prospects 2014: Highlights. United Nations Publications.

- Federal Statistical Office of Switzerland: http://www.bfs.admin.ch/

- Edwards, R., & Holland, J. (2013). What is qualitative interviewing? A&C Black.

- Taylor, A. F., Wiley, A., Kuo, F. E., & Sullivan, W. C. (1998). Growing up in the inner city green spaces as places to grow. Environment and Behavior, 30(1), 3-27.

- Kuo, F. E., Sullivan, W. C., Coley, R. L., & Brunson, L. (1998). Fertile ground for community: Inner-city neighborhood common spaces. American Journal of Community Psychology, 26(6), 823-851.

- Kweon, B. S., Sullivan, W. C., & Wiley, A. R. (1998). Green common spaces and the social integration of inner-city older adults. Environment and behavior, 30(6), 832-858.

- Kuo, F. E., & Sullivan, W. C. (2001). Aggression and violence in the inner city effects of environment via mental fatigue. Environment and behavior, 33(4), 543-571.

- Kuo, F. E., & Sullivan, W. C. (2001). Environment and crime in the inner city does vegetation reduce crime. Environment and behavior, 33(3), 343-367.

- Coley, R. L., Sullivan, W. C., & Kuo, F. E. (1997). Where does community grow? The social context created by nature in urban public housing. Environment and behavior, 29(4), 468-494.

- Kingsley, J. Y., Townsend, M., & Henderson-Wilson, C. (2009). Cultivating health and wellbeing: members' perceptions of the health benefits of a Port Melbourne community garden. Leisure studies, 28(2), 207-219.

- Draper, C., & Freedman, D. (2010). Review and analysis of the benefits, purposes, and motivations associated with community gardening in the United States. Journal of Community Practice, 18(4), 458-492.

- The community's toolbox: The idea, methods and tools for participatory assessment, monitoring and evaluation in community forestry FAO 1990

- Malakoff, D. (1995). What good is community greening. Community greening review, 5, 4-11.

- Ferris, J., Norman, C., & Sempik, J. (2001). People, land and sustainability: Community gardens and the social dimension of sustainable development. Social Policy & Administration, 35(5), 559-568.

- Armstrong, D. (2000). A survey of community gardens in upstate New York: Implications for health promotion and community development. Health & place, 6(4), 319-327.

- Harris, E. (2009). The role of community gardens in creating healthy communities. Australian Planner, 46(2), 24-27.

- Mayring, P. (2010). Qualitative inhaltsanalyse (pp. 601-613). VS Verlag für Sozialwissenschaften.

- Patton M. (1990). *Qualitative evaluation and research methods*. Sage Publications. Newbury Park, United Kingdom.

- Schutt, R. K. (2006). Investigating the Social World: The Process and Practice of Research. SAGE Publications.

- Rani, R., & Kumar-Lenka, S. (2012). Motivation and Work Motivation: Concepts, Theories & Researches. International Journal of Research in IT & Management, 8(2), 12-22.

Acknowledgment

Appendix

Interview-Leitfaden Gemeinschafsgärten Basel

1. Wie entstand die Idee des Gemeinschaftsgartens und wann wurde er gegründet?

2. Wie sieht kurz beschrieben das Konzept des Gartens aus?

3. Wie viele Leute sind aktiv im Garten tätig?

4. Was ist Ihre Motivation im Garten mitzumachen?

5. Was für Funktionen erfüllt der Garten (für die teilnehmenden Gärtner, fürs Quartier, etc.)?

6. Was ist euch wichtig in der Bewirtschaftung des Gemeinschaftsgartens?

   a. Wieso habt ihr euch entschieden den Garten zu bewirtschaften?

   b. Welche biologischen Praktiken wendet ihr im Garten an?

   c. Wenn nicht biologisch (natürlich) bewirtschaftet, welche Praktiken wendet Ihr sonst an?

7. Was ist Ihnen persönlich wichtig in der Bewirtschaftung des Gartens?

8. Welche Faktoren beeinflussen eure Entscheidungen im Garten?

   a. Welchen Einfluss haben die Stadt und die vorhandenen Regelungen auf eure Entscheidungen?

   b. Könnt Ihr bei Hilfe auf den Kanton zurückgreifen?

   c. Verspüren sie den Druck der Nachbarn etc. wie sie den Garten zu bewirtschaften haben?

9. Was bereitet euch am meisten Mühe und Sorge im Garten?

10. Haben Sie eine grosse Tier- und Pflanzenvielfalt im Garten?

    a. Was sind für Sie die Vor- und Nachteile einer grossen Artenvielfalt im Garten

11. Von wo haben Sie Ihr gärtnerisches Wissen?

    a. Bei wem holen Sie allenfalls Ratschläge für Ihren Garten?

12. Was hat sich verändert seit sie mit dem Gemeinschaftsgarten begonnen haben? Was machen sie heute anders und wieso?

13. Was sind für Sie die Hauptunterschiede zwischen einem Privatgarten und einem Gemeinschaftsgarten?

14. Fällt Ihnen noch etwas ein, was wir noch nicht besprochen haben oder möchten Sie noch etwas ergänzen?

Figure 1: *Interface of the qualitative analysis software „MAXQDA". On the left side of the picture the produces codes are shown. On the right side a small part of an interview transcript from participant B5 is shown.*