

THESIS

Wild Herbs and Adventure Education
Studying personal growth through foraging skills

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ABSTRACT

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The goal of this thesis is to research the possibilities of personal growth based on foraging activities and the applicability of foraging as a tool in adventure educational context.

While foraging is more commonly researched within the fields of sustainability and nutrition, there is little professional research toward personal growth through foraging and the use of foraging in adventure educational context, creating a need for further research.

To generate sufficient data for this research, questionnaires were sent out to the participants of two foraging courses held by the commissioner. This data was analyzed qualitatively and compared to the existing professional literature.

The research data shows promising results regarding the research objectives as study participants experienced different processes indicative of personal growth based on their foraging experiences. Correlations could be seen between the effects of foraging and adventure and outdoor education methodology, indicating a possible incorporation of foraging into adventure and outdoor education programs.

For the commissioner working in the field of social and ecological education and change, these results provide a base to advocate the holistic impact of their work and a framework for future goal-oriented program planning.

Keywords: foraging, personal growth, adventure education, outdoor education, wild herbs, spiritual growth, transfer

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1 INTRODUCTION

“Held by the land” is the title of a foraging book (Joseph 2023) which accurately describes the meaning of foraging to me. Recognizing and appreciating all that nature provides for us to survive is what creates this sensation of being held, of being cared for. In indigenous cultures, plants are commonly seen as wise teachers whom we can learn from (Joseph 2023, 31-33) in order to live sustainably in this world. In her book “Braiding Sweetgrass” Kimmerer describes this point of view, explaining that in many indigenous worldviews, humans are seen not as superior to the rest of the natural world, but as inferior, the “little brothers”. This is because plants have been existing much longer than humans on this planet, which means they had more time to acquire sustainable survival strategies on earth. (Kimmerer 2021, 19.) In western societies, most people are far removed from such thoughts and worldviews, but plants certainly are the base for everyone’s survival. Before industrialization took place, all humans survived by using the resources provided directly from nature, such as fish, game and wild plants. This means that foraging – gathering food from nature – is connected to every person’s heritage even if it is further removed from someone’s daily life. And finding ways to live a sustainable and balanced life are highly important topics especially in western societies, where people are caught in the systems and ideas of infinite economic growth, consumerist lifestyles as an indicator of life quality and egoistic thinking (Kimmerer 2021, 357-358). At the same time conditions like anxiety, depression and psychosis seem to increase with increased urban lifestyles (McKenzie, Murray & Booth 2013), as well as cardio-vascular diseases and – as a result of western diets – conditions like obesity (Vorster 2002). These are very few examples of health and mental health problems rising in western societies which should be seen as warning signs that we need to find a more sustainable, more balanced and more connected way of life again, which is where foraging comes in. Studies have already shown the effectiveness of nature immersion and connection in combatting the negative effects of modern urban lifestyles (Warber, DeHudy, Bialko, Marselle & Irvine 2015, 9-10). Foraging for wild herbs can bring additional elements of nature connection through the immediate interaction with nature (Spilková 2020, 318), resulting in a feeling of belonging and connectivity (Poe, Lecompte, McLain & Hurley 2014, 14) as well as the already mentioned feeling of being taken care of, of being held (Poe, McLain, Emery & Hurley 2013).

Due to the characteristic of foraging and my own experience, I believe that learning foraging skills can provide even more than a way of balancing out modern lifestyles, connection and

belonging. I believe that foraging can affect a person in a holistic way leading to personal growth for the forager in a similar way that adventure and outdoor education (further referred to as AOE) aims for. I can see similarities and correlations in the characteristics of foraging activities and the key elements of AOE programs that seem to point to a common result – the enhanced quality of life, connectivity and personal growth of the participant.

In order to promote the use of foraging as a tool for personal growth and further applications, it is important to clearly determine the learning outcomes that can be justified when participating in foraging courses. As described by Bunyan (2011, 8), many possible learning outcomes can be theoretically associated with certain situations, which shows the need to qualify which learning outcomes can actually be justified as being realistic results when instructing certain AOE methods. In this thesis research the goal has been to evaluate if there is a reasonable foundation for these assumptions, to discuss the relationships between foraging and personal growth, as well as the relationships between foraging and AOE. Positive results would enable foraging to be used as a concrete tool in AOE programs and other programs aiming for personal growth. To carry out this research, questionnaires were sent out to participants of two foraging courses, which were analyzed through qualitative research approaches and compared to the existing literature. The main findings of this thesis did indeed validate the presence of personal growth through foraging and support the applicability of foraging as a method in AOE context. This thesis report will discuss the possible implications of the impact of foraging as represented in the study results of this thesis work and in the professional literature, as well as make suggestions on possible applications of foraging in AOE context. This thesis supports the commissioner working in the field of environmental sustainability and social empowerment in gaining a deeper understanding of possible outcomes of their foraging programs and ways to concretely utilize foraging as a goal-oriented activity. My hope is that if foraging gets incorporated in more programs, people can rebuild their relationship with nature, come to respect the plants and environments again and generally – over time – build a more balanced, more sustainable and more connected foundation for our lives, our children and our planet.

2 GOALS AND NEEDS

2.1 The commissioner

The commissioner of this thesis is Dodo ry, an environmental NGO founded in 1995 which is operating in different cities in Finland, currently in Helsinki and Oulu. Dodo's declared values are environmental protection, social and political influence, working towards social and global justice, health and well-being, while keeping up playfulness, creativity, talkativeness and a culture of experimentation (Dodo 2024, 4).

Through low-threshold activities Dodo aims to create possibilities for people of all ages to engage in environmental actions and to build community to empower people in the city to shape their own future, encouraging people to be active in finding interesting and meaningful solutions to issues raised by environmental changes. Dodo believes in doing things in cooperation between members, volunteers and employees, which can be seen in projects that develop from the initial idea into a project created by Dodo's members. (Ibid., 3.) Currently there are around 30 volunteers and 6 part time paid employees coordinating Dodo's projects and actions. Dodo's members were counted to be 122 in 2023, while the reach Dodo has through platforms such as their mailing list and social media is around 6600 people (Ibid., 6).

To encourage change, Dodo is using three different approaches, namely carrying out inspiring experiments to create action, using education to create a sufficient knowledge base around needs and opportunities for social and ecological change, and establishing networks to work together, spread ideas and create a bigger influential target group. While Dodo aims to include all citizens, there is importance to reach the younger generations to create sustainable change for the future. To keep people actively engaged in finding environmental and social solutions, Dodo believes that the process of finding a solution needs to be interesting and meaningful. (Ibid., 3-4.)

Dodo aims is to create change in urban areas to adapt to climate challenges, for example through developing urban farming such as the Turntable in Pasila, through urban planning projects, focusing on diverse urban nature and establishing environmentally conscious urban lifestyles and circular economies, such as using food waste, recycling and repair. Further Dodo aims to cooperate with other organizations, as well as industries and actors in the city of Helsinki, all

while working to encourage people to act, building a sense of agency and creating community. (Ibid., 4-5.)

To reach these goals Dodo is carrying out different projects in different areas, for example urban farming and urban planning. Bi-weekly waste food dinners in Helsinki since 2018 create an opportunity to experience community and include different workshops around sustainability. The “Towards action” project in the sector of food sustainability offers a platform for young people to create networks and community while participating in different camps and activities which are part of this program. (Ibid., 7-15.) Of international importance is the Gambia Tesito project. This current project – a continuation of a program carried out in 2021 and 2022 – is funded by the foreign ministry and takes place in Gambia, Senegal and Guinea-Bissau together with a local partner organization. The aim of this project is to protect the forest there, to develop sustainable livelihoods for the local inhabitants of these areas and to enable local actors to carry out environmental protection (Ibid., 15-16).

Under these general topics of environmental education and sustainability Dodo has been organizing foraging courses as well. Foraging is a tool in obtaining local food in a more sustainable way and helps people to connect to our nature (Joseph 2023, 9; Spilková 2020; Teixidor-Toneu, Giraud, Karlsen, Annes & Kool 2022) which can be used in sustainable urban food acquisition. This year’s foraging courses consisted of two multiday excursions to Isnäs, located 75km east of Helsinki at the coast, which create the base for the research presented in this thesis.

2.2 Goals of the thesis

The goal of this thesis is to answer the following questions:

Is it possible to detect the presence of personal growth in the participants due to foraging experiences?

And:

Can foraging be used as a tool in adventure and outdoor education programs?

These research questions are based on my own observations through which I can see certain parallels between foraging activities and personal growth, as well as foraging activities and the methods applied in the field of adventure and outdoor education (AOE). One central goal of

AOE programs is the personal growth of the participants (Smith 1996, 14-16). A positive result on personal growth through foraging experience creates a connection to AOE by having a similar goal and effect on the participant's inner state. Combined with fundamental similarities in the key elements between foraging activities and AOE activities this might open the door for professionals to connect these two fields to enhance both activities. Foraging programs could be planned to incorporate more adventure educational methods to enhance the possible benefits and personal growth for the participants and AOE programs could be laid out to include foraging activities to reach certain goals, for example to interact even more closely with the environment. The aim of this thesis is to validate this comparison through the research carried out in the scope of this thesis work in order to determine how justifiable this comparison is and to evaluate the potential for further research on these topics.

For the commissioner, this thesis research provides a good base to further advertise their programs and to convey possible benefits that can be achieved through those. In the broader frame of the commissioner's work around urban agriculture and environmental action this thesis can provide a good ground work to view foraging as a serviceable tool to create not only an environmentally friendly source of food in urban areas but at the same time offer possible solutions to some of the ongoing problems around urban live and modern societies. This thesis will also allow the commissioner to understand the impact of the program in a more holistic frame and – if they choose to do so – create future foraging programs in a way that can support these holistic benefits of the participants. Through this thesis they have the chance to gain a new understanding of the work they do based on a study carried out amongst participants of their existing program. These multiday foraging courses in Isnäs which are the base for this thesis research were carried out for the first time in this way by the commissioner. This might enhance the value of the information gathered in this thesis for the commissioner as a feedback and evaluation of the results and impact of the commissioner's work.

3 KNOWLEDGE BASE

In order to answer the research questions presented in chapter 2.2, there is need to clarify certain concepts and processes. The following chapters will provide background information and definitions around personal growth, foraging and adventure and outdoor education (AOE) – the key topics of this thesis research. This is to provide a solid understanding of the phenomena which are being discussed and to create a base on which to evaluate the research results and their meaning.

3.1 Personal growth – definition and the personal growth process model

Personal growth presents a key element of this thesis work, as it provides the most important component of this research evaluation around the impact of foraging and its applicability in AOE context. To evaluate the presence of personal growth it is important to first define what is covered under the term ‘personal growth’ in the context of this thesis.

Personal growth can be defined as a process of continually expanding and fulfilling one’s highest potential (Ryff 1989, 1071), as self-development and transformation, including a search for increased awareness and understanding of central questions around a person’s own identity and purpose (Smith 1996, 15-16). Personal growth is a holistic process including and affecting all aspects and systems the individual is a part of, ranging from physiological over emotional to cultural layers. This holistic process is not linear or limited to a certain amount of time, it is a chaotic and dynamic psychological change which can take years to unfold. In the process the learner fluctuates between different mental states and levels of awareness rather than moving through a linear set of different stages. The outcome of this process provides the learner with better resources and capacities to increase one’s well-being. (Maurer, Maurer, Hoff & Daukantaitė 2023, 3). Personal growth therefore presents the key for anyone aiming to develop themselves in a positive way, to grow and to expand as a person. It is clear that personal growth covers a wide spectrum of development, it affects many aspects of a person’s life, and can appear at different stages of the process in different ways. Further, since personal growth consists of many different stages which the learner goes through in chaotic order, possibly revisiting stages already gone through before, in one group of participants experiencing personal growth, each participant might be in a different stage of the process. This clearly presents a

challenge for this thesis, as it is making it difficult to recognize personal growth by appearance. Despite this challenge it is necessary for this thesis to determine and evaluate the presence of personal growth in the participants to answer the research questions. To be able to do so, the personal growth process model presented by Maurer and colleagues (2023) is used as a reference. In this model different processes which have been defined as the subprocesses of personal growth are presented. Because these processes are part of the bigger process of personal growth, the presence of these subprocesses in the participants will be used as an indication that personal growth is taking place for this thesis research.

In the following paragraph the different subprocesses (Maurer et al. 2023, 5-8) will be presented to create a basic understanding of the indications for personal growth used for the research analysis. There is no linear order to these processes as the learner moves back and forth between different topics with the exception that the first subprocess, self-awareness, is seen as a necessary requirement for the other subprocesses to unfold and therefore needs to occur at the beginning of the growth process, although it should be revisited at different stages of the personal growth process. *Self-awareness* describes a better understanding of both the inner and the outer aspects and experiences of the self. Inner experiences are emotions, values, thoughts, beliefs and ideas of identity, whereas the outer experiences cover the interaction with other people and the identities shown in social context. Self-awareness describes the ability to gain deeper understanding of these aspects, how they influence one's own life and beliefs, as well as social interactions with the surrounding environment and the generation of meaning behind events occurring either internally or externally. It is both introspection and reflection on how one's actions influence others. Self-awareness needs to develop for the other growth processes to unfold, but it is a constant development which can continue throughout one's whole life. (Ibid., 5-6.) I believe that engaging with actions leading to increased self-awareness can be seen as especially necessary these days, because there seems to be a widely spread coping mechanism to use easily available distractions such as movies, series or social media instead of reflecting upon one's emotions to gain an understanding of oneself, especially when these emotions are uncomfortable. As mentioned above, it is necessary to gain increased self-awareness for any of the other subprocesses of personal growth to unfold. This means that by avoiding self-awareness through distraction rather than introspection we might be actively blocking any further personal growth in our development. The next subprocess presented by Maurer and colleagues (Ibid., 6.) is *openness toward experiencing and change*, which covers not just a general acceptance of new experiences but an openness toward one's true feelings and reactions to any

experience without building up emotional defences or blockages. Positive development in this subprocess means that a person will be more attuned to meet oneself and feel less need to deny aspects of the experience or the self. Openness to change indicates a development from a fixed mindset and fixed identification of self into a state of fluidity between the idea of self and the environment. (Ibid., 6.) Openness towards experiencing is closely connected to introspection through heightened self-awareness. Someone who is comfortable at experiencing their own emotions is in turn able to understand oneself more fully, which again highlights the importance of engaging with this process. *Existential courage to face adversities in life* (Ibid., 6-7) is the next subprocess of personal growth in the personal growth process model. This means to actively face adversities with strength and flexibility, orienting toward meaning and opportunity. The learner is thereby confronting the adverse situation without trying to avoid discomforts or become passive. The mindset when confronted with adverse events plays a big role when determining one's approach to the situation, as an adverse event can be seen either as a terrible catastrophe or an adversity for the sake of personal development. (Ibid., 6-7.) Cultivating a positive mindset around adversities in life can again be seen as a very valuable personal development in times when fear of certain events is strongly being spread in our societies, because seeing adversities not as catastrophe but as a chance for development likely decreases fear-filled aspects such as the feeling of helplessness. Decreasing the feeling of helplessness is also the next subprocess of personal growth, *sense of autonomy and internal locus of control* (Ibid., 7). This subprocess describes the sensation of being in control of and able to directly impact one's own life. This comes through a developed recognition of one's own thoughts, values and beliefs and the ability to differentiate between those coming from within and those from external sources. With this internal understanding the learner can develop the ability to make decisions based on one's own goals and values, rather than fulfilling externally placed goals. Through an internal locus of control, the learner can feel empowered, rather than being at the mercy of forces outside one's control. (Ibid., 7.) In my own experience, feeling empowered and able to influence one's own life can provide a strong feeling of safety. This is again very valuable as – based on my own perception – many people seem to feel unsafe due to political developments or climate change. *Taking responsibility for the self and others* (Ibid., 7) is another important subprocess of personal growth, where the individual recognizes the responsibility they have for their own choices, even in the presence of external influences outside of the individual's control. Taking responsibility helps to recognize opportunities to take control of a situation and to understand one's accountability on a personal, an interpersonal and a societal

level. *Self-compassion and trust in one's organism* are important subprocesses in which the learner starts to cultivate a more loving and compassionate relationship towards themselves. Through becoming friends with oneself the learner is able to find more enjoyment and comfort in solitude, letting go of the idea of isolation and loneliness and instead finding relaxation and nourishment. *Compassion for other people and the world* is an extension of self-compassion and comes with the growing understanding of the adversities which others face as well, their challenges and the understanding that all of us humans are connected. (Ibid., 7-8.) Compassion both for oneself, as well as for others, seems to be lacking in modern societies and therefore shows the need to develop ourselves further in those directions, while taking responsibility helps to feel empowered, therefore influencing the creation of an internal locus of control.

Those different processes create a base for the recognition and evaluation of personal growth. For the learner, these subprocesses are important developments of the self, all leading to enhanced well-being. This enhanced well-being is defined by Maurer and colleagues as greater authenticity, harmony and a state of being satisfied with one's life (Ibid., 8). Hereby authenticity is defined as an alignment of the intrapersonal and the interpersonal identities, where the characteristics the individual displays within social interactions matches that person's inner feelings, thoughts, beliefs and values. Harmony describes a state of flexibility and balance between different aspects of one's life, including the ability to partly let go of control and adjust to the fluctuating nature of life. Life satisfaction is indicative for the individual's ability to recognize the aspects of their life they are satisfied with and is therefore included in this definition. (Ibid., 7-8.) Seeing that authenticity, harmony and life satisfaction are defined as the results of the aforementioned subprocesses of personal growth, these aspects too indicate the presence of personal growth and can be used for this thesis research as a reference point in the evaluation of personal growth.

In the previous paragraphs the different aspects of personal growth have been explained to create a base on which to judge whether or not personal growth is evident. For a more complete understanding it is important to mention that certain criteria has to be met for personal growth to unfold in the first place. There are different aspects presented by Maurer and colleagues (2023) which can prevent personal growth if they are not met sufficiently. Of high importance is the need for psychological safety, as well as the learner's willingness to engage with personal growth. There are different motivations for individuals to engage with personal growth such as the wish to recover from traumatic experiences or to solve on-going psychological problems,

but also positive influences such as meeting an inspiring person, changes in the learner's personal or professional life and the wish to understand oneself and live true to this understanding. A learner who is not willing to look inwards and take responsibility for their actions is able to stop the growth process of evolving and expanding. (Maurer et. al. 2023, 2-3.) If the requirements for personal growth have been met, though, personal growth is driven by an inner, natural force, as there is a natural tendency of all life to grow and expand (Rogers 1961, 35). This means that personal growth is a natural process, however, it can be strongly repressed by one's own choosing or through environmental influences. Because personal growth occurs throughout a long period of time the attitude of the learner and the perceived psychological safety in their daily life plays a big role in how successful personal growth will be over time.

3.2 Foraging – basic information and holistic impact

In order to understand the impacts of foraging on personal growth and its connections to AOE this chapter will provide information around foraging, its benefits and risks and the already known impacts on people which foraging can have. Defining foraging is the element of searching and the gathering of what has been found. This foraged plant or animal material can be further processed and is usually consumed. Nugent and Beames (2015, 78) have called foraging a “quest – a hunt for wild plants, fish and other edible resources”. In this thesis work the term foraging will refer to the gathering of wild plants specifically unless otherwise mentioned.

Because the need to forage in order to survive has been mostly eliminated in many western societies, the foraging has been practiced less and less for some decades. These days, though, foraging is again becoming more widespread and more popular. (Schunko, Grasser & Vogl 2015, 2.) This renewed interest in foraging practices means that the role which foraging plays in our society is developing beyond simply obtaining food for survival. Other aspects of foraging are being valued more and present different reasons for foragers to go out looking for edible and medicinal plants. In addition to the reasons to go foraging also the ways of foraging change as the ways of learning about foraging change. New foraging practices emerge beyond regional traditions (Łuczaj, Wilde & Townsend 2021, 1) due to a loss of tradition, the migration of other ethnic groups introducing own traditions to new areas, as well as an increase in information, modern research and new trends available through other sources such as the internet (Łuczaj, Pieroni, Tardío, Pardo-de-Santayana, Sõukand, Svanberg & Kalle

2012, 1). Foraging books and online platforms such as ‘Plants for A Future’ offer information on foraging practices from different continents and traditions (Łuczaj et al. 2012, 6; U’mistá Cultural Society 1998; Joseph 2023; Plants For A Future 2024). Reasons to go foraging nowadays in western societies are the enjoyment of the activity (Schunko et al. 2015, 9; Synk, Kim, Davis, Harding, Rogersa, Hurley, Emery & Nachman 2017, 101), obtaining unprocessed food of higher nutritional quality (Łuczaj 2012, 5; Schunko et al. 2015, 8) and less toxic impact than conventional food (Łuczaj et al. 2021), resulting health benefits (Synk et al. 2017, 101) and using foraging as a way of spending time outdoors and connecting to nature (Synk et al. 2017, 101; Łuczaj et al. 2021; Teixidor-Toneu et al. 2022, 116). Economic benefit was mentioned frequently in a study carried out in Baltimore as a motivation to go foraging seeing that foraged ingredients can replace possibly expensive ingredients (Synk et al. 2017, 101) which has also been my own experience when foraging. Environmental motivations such as reducing food mileage and waste products, as well as political motivations can play a role for people to choose to forage (Poe et al. 2013). Tradition and cultural heritage might be minor reasons to go foraging for some younger foragers (Schunko et al. 2015, 10), however, traditional foraging knowledge certainly is an important part of the cultural heritage and identity of certain regions and ethnic groups and attempts are being made to preserve this knowledge, amongst other approaches also through compiling the knowledge of traditional foraging in certain areas in written form (Tardío, Pardo-de-Santayana & Morales 2006; Kalle & Sõukand 2012; Łuczaj 2012; Svanberg 2012; Łuczaj, Köhler, Pirożnikow, Graniszewska, Pieroni & Gervasi 2013; Łuczaj, Jug-Dujaković, Dolina, Jeričević & Vitasović-Kosić 2019). Especially in North American Indigenous communities, traditional plant knowledge is being revived as a means to reconnect members of indigenous groups with their cultural roots and traditions (Joseph 2023, 9; U’mistá Cultural Society 1998, 2). Foraging activities observed in kindergartens show how children learn to integrate cultural foraging behavior into their understanding of identity and lifestyle by copying the adults around them (Nugent & Beames 2015, 84). This multitude of reasons to go foraging explains the revived interest in foraging practices – the reasons to go foraging are as different and widespread as the contemporary foragers themselves.

The mentioned nutritional benefits and health benefits of including wild herbs into one’s diet can be understood when looking at the nutritional properties and active ingredients of wild plants. Wild plants gathered for food use are many times rich in nutrients (Kuhnlein & Turner, 1991, Poe et al. 2013). Dandelion for example contains more vitamin A than carrots (English

2020, 69), which are commonly known as a source of vitamin A, and more vitamin A, E, K, calcium and antioxidants than spinach (Cooper 2016). Stinging Nettle too is often cited for its exceptionally high content of nutrients – especially minerals, i.e. potassium, calcium, iron - compared to commonly sold and eaten foods such as spinach or kale (Kress 2018, 110; Poe et al. 2013; Bagade, Pant & Pandey 2021, 116). Due to a decrease in quality of vegetables and fruit bought from the stores (Łuczaj et al. 2012, 5) the high nutritional content of wild food plants is even more noticeable. In addition to this decrease in nutritional diversity and density, the conventional agricultural practices involve the use of harmful pesticides and herbicides as well as other practices harmful to nature and us humans as the consumers of the food products. This is a further reason for some groups of people to look for alternative ways to obtain food. One of these alternatives is foraging. (Łuczaj et al. 2021, 1.) In addition to providing good nutrition many plants have medicinal values that can be effectively used in the prevention and treatment of diseases which can be of great benefit for more knowledgeable foragers (Poe et al. 2013), although this will not be discussed further as the medicinal use of wild plants is a very broad topic in itself and not the focus of this thesis.

However, in order to use foraging – whether for food, for medicine or for personal growth - it is important to learn to identify plants safely and correctly. Safety concerns and lack of foraging knowledge present some of the main barriers for people to go foraging in addition to a lack of time (Synk et al. 2017, 101). While there seems to be some hysteria around the topic of foraging that is certainly not justified – my friends in high school were shocked when I ate hazelnuts from the tree – there are plants that are deadly poisonous growing in Finland, as well as in most countries. While most poisonous plants in Europe look quite distinct, there are a few where an actual risk to mistake the poisonous plant for the edible look-alike exists if foragers aren't aware of the distinguishing characteristics (Łuczaj et al. 2012, 9). The simple solution to this is to collect only herbs which can be safely identified by the forager (Kress 2018, 6). Traditionally children learned to identify these plants from parents, grandparents and other relatives or friends (Łuczaj et al. 2012, 6). However, due to the recent decrease in foraging practices during the last century (Schunko et al. 2015, 2) many adults didn't learn about these practices anymore in the traditional way which shows the need to acquire this knowledge through other means such as books and foraging courses (Łuczaj et al. 2012, 6). These books and courses usually cover both the safe identification of a plant and ways to harvest and process it (e.g. Kress 2018; English 2020; Joseph 2023). Other aspects included depending on the focus of the book or course might be the medicinal use, both the traditional way or ways that are suggested by through modern

research. Sometimes other similar looking plants are mentioned as well, especially when those look-alikes are poisonous.

Moving beyond the health benefits obtained through biological processes and nutritional attributes of wild herbs and into more holistic realms there are further benefits and effects of foraging practices on the forager. These holistic effects of foraging provide the connections to AOE and possibilities for personal growth. Curry & Williams (1975, 47) have called foraging “one path to achieve a broader vision of life lived in harmony with the world”, thereby highlighting the holistic impacts of foraging.

Foraging is a major part of how our ancestors survived as hunter-gatherers for thousands of years. It is a practice that is deeply connected to our heritage and biology. Through foraging we can re-discover and re-establish our connection to the earth, to our senses and to our identity. (Irving 2006.) This alone provides a foundation to assume that foraging practices can open pathways to much more holistic development and personal growth than mere survival and healthy nutrition. It can be assumed that a practice which is so deeply rooted within each one of us should have the capacity to help us access deeper levels of our consciousness, worldviews and ideas of identity. This assumption is supported by indigenous people and communities reconnecting to their traditional plant knowledge in order to reconnect to themselves and their traditions. Josph (2023) describes this process of connection in the following statement:

“It has been through rebuilding my cultural relationships with the land, learning about plants, and reconnecting with them, that I have found grounding and strength in my identity” (Josph 2023, 9).

Sufficient foraging skills can also be seen as an important safety skill in case of emergency, such as getting lost in the backcountry (Curry & Williams 1975, 46). And it can be argued that we might depend on knowledge of foraging skills again at some point due to uncertainties and threats in world politics and climate (Bergan, Nylund, Midtbø & Paulsen 2023, 13). This means that foraging knowledge might support sustenance and good health in a scenario where access to food might be limited. This feeling of independence and increased confidence in our ability to take care of basic needs such as providing healthy nutrition can translate into a feeling of freedom and increased independence from the economic systems (Teixidor-Toneu et al. 2022, 116). Independence from the commercial food system and the ability to be self-sustainable is

also an important topic for people who are more critical towards politics and government control in western societies. As one forager words it:

“When someone controls your food source, they control you. You want to control a population, you control their food source. (--) the most important thing I can do is become sustainable (--) I don’t want to be controlled”. (Poe et al. 2013.)

This means that learning to forage seems to enable people to feel more independent, more free from systems they might not agree with and more assured of their own capability to survive. It can be assumed that these strong impacts on a person’s feelings of independence, capability, agency and freedom would be able to create positive change in individuals in an adventure educational context as well, translating and transferring in different areas of the individual’s live.

Another major factor to look into when considering the benefits of foraging is the time spent outside. It has been shown already that time spent in nature has a beneficial impact on our physical and mental health as there is a clear connection between emotional well-being and engaging in physical activities in nature rather than in built environments such as city streets (Pasanen, Tyrväinen & Korpela 2014, 336-337). Another study shows that participants who spent 120min or more per week in direct contact with nature were more likely to report good physical health and well-being compared to those who spent less or no time in nature (White, Alcock, Grellier, Wheeler, Hartig, Warber, Bone, Depledge & Fleming 2019). While the benefit of this time spent outside might seem like a byproduct of the actual foraging activity it should certainly not be overlooked: In a study carried out in Czech Republic the main motivation for participants to go foraging was the time spent in the forest, in silence and in the fresh air. Through foraging, the forager is actively engaging with nature by picking wild plants, therefore being tuned in to the seasons and cycles of nature. (Spilková 2020, 318.) This feeling of connectivity which can develop through this direct interaction with nature is strongly valued amongst foragers (Teixidor-Toneu et al. 2022, 116; Cooper 2016). A forager expressed their feelings about the possibility of not being able to forage as “a loss of wilderness in our souls”, further stating that “I would be just destroyed in a lot of ways. Because my connection to my environment would be severed”. (Poe et al. 2013.) These statements underline the strong emotions this forager feels around foraging and the resulting connection to nature. Through foraging, one might experience a sense of belonging into our natural environment as well as a sense of purpose toward a more spiritual understanding of existence (Poe et al. 2014, 14). One forager expressed how she learned through her family’s foraging traditions already as a child that “the

earth takes care of our needs” (Poe et al. 2013). In my own experience there is more and more focus on isolation and individuality in the modern world we live in, further accelerated by technologies that replace in-person human interaction. The concepts of community and connectivity are playing a very small role in the common worldviews and lifestyles. But I do believe that we truly need this feeling of connection. This shows the potential of foraging as an important tool in our modern world, because foraging seems to be able to create these feelings of connectivity and belonging.

Especially for people living in urban areas who generally are more secluded from nature, foraging can be a meaningful opportunity to connect with nature as is shown by the sentiments of urban foragers in different studies (e.g. Poe et al. 2013; Poe et al. 2014). To create this nature connection for children growing up in urban areas, Curry & Williams proposed the idea of including foraging in curriculums already in 1975. Besides from establishing nature connection, foraging activities would expose the children to new experiences, widening their horizons to new possibilities for fields of interests or desired professions (Curry & Williams 1975, 46). Foraging in urban areas is a relatively wide-spread practice in many cities nowadays and therefore a good base for human-nature interaction amongst people living in cities. Different factors influence foraging activities such as previous exposure to foraging in the childhood, the degree of urbanization in a neighborhood and access to edible wild plants. Residents living in areas that are less suitable for foraging due to very high urbanization rates might still visit the countryside to forage while residents living in closer contact to nature areas, for example on the outskirts of a city or in less densely populated districts, can forage more easily in their own neighborhood. (Schunko & Brandner 2021, 1175.) The assumption that urban foraging might carry promising potential is also confirmed in a study carried out in Berlin which shows that 71% of urban non-foragers are open to the idea of foraging in cities, mostly if certain conditions are met, such as for example removing trash and banning dogs from foraging areas to ensure the quality of the food plants (Fischer & Kowarik 2020, 4). While there can be strong value in the practice of urban foraging as presented in this paragraph, there are uncertainties as to how much the wild plants – once washed – are affected by pollution in cities (Synk et al. 2017, 98; Fischer & Kowarik 2020, 6). Additionally, the described benefits of the time spent in nature (Pasanen et al. 2014, 336-337) might vary with urban foraging, depending on the ‘wildness’ of the area the forager is moving through. Foraging along a street in a built environment will – based on the criteria of Pasanen and colleagues – not have the same effect as foraging in a city

park which could be considered a natural environment. As an additional benefit foraging activities can include very diverse people in a neighborhood, giving more experienced people a chance to support the program and building a sense of community through the shared activity (Curry & Williams 1975, 46). I agree that having a common goal and common interests, in this case foraging, can be very beneficial in bringing different people in a neighborhood together and can certainly act as a catalyst in the process of group forming and getting to know each other.

When it comes to educational settings nowadays, there does seem to be some awareness around the possible benefits of foraging as a tool for learning, as foraging is used at least in some kindergartens to enhance the children's development and nature connection (Bergan et al. 2023, 13; Nugent & Beames 2015, 79-80). I remember one time during my childhood in kindergarten when we made jam from dandelion flowers. The experiential understanding that I can pick something as basic as dandelion flowers and turn it into delicious food that I can consume was a first exposure to foraging practices and the understanding that we are a part of our natural environment. If already these simple one-time experiences can be very meaningful, it can be assumed that there might be potential for personal growth to be achieved through a more goal-oriented program around foraging.

3.3 Adventure and outdoor education – key elements and transfer effect

In order to understand and analyze the possibility of using foraging as a tool in AOE, this chapter will provide basic information about the different key elements of AOE with the intention of showing a wider spectrum of central elements rather than presenting one precise definition for this thesis work. This is to open up a wider field of applicability of foraging activities in the field of AOE connected to the research findings of this thesis. The central topic connecting the research questions around foraging with AOE is the presence of personal growth. Through AOE practitioners aim to induce positive changes in the learner's personal and social context (Beames & Brown 2016, 34). The learner's self-discovery and personal growth are central goals of AOE programs, so that the learner can reach their full potential (Hopkins & Putnam 1994, 11; Smith 1996, 14-16). As presented in chapter 3.1 there are different subprocesses of personal

growth which are being used as an indication for personal growth. The presence of these sub-processes is being used to evaluate the effect of foraging activities in this thesis, however, they can equally be used for the evaluation of personal growth based on AOE programs.

Asides from the central goal of personal growth there are different aspects, methods and values defining the approach of AOE to reach this goal. Because there are many definitions of AOE from professionals and institutions, relevant key elements of AOE from different definitions will be combined and presented in this paragraph. One key element of AOE is the natural environment the activities take place in (Bunyan 2011, 9), the connection and interaction with this environment and the impact the environment has on the activity itself (Sibthorp & Ewert 2014, 5-6), which is also described in the method of place-based learning (Beames & Brown 2016, 57-59). Commonly used in definitions of AOE is the presence of uncertainty (Sibthorp & Ewert 2014, 5-6; Beames & Brown 2016, 20-21) and its utilization to foster creativity and learning (Beames & Brown 2016, 74-76). Both overcoming fears (Bunyan 2011, 9) and having an element of risk included in the activities (Bunyan 2011, 10-12; Sibthorp & Ewert 2014, 5-6) are part of the adventurous aspects of the activities, as well as enhancing the learner's development and personal growth. This is shown in different theories promoted by professionals around the optimal balance of risk and competence for personal growth to happen. According to Carpenter and Priest (1989, 66-68), real risk and real competence of the learner need to be balanced to reach an optimal state of adventure experience and performance. Other authors highlight the importance of the perceived risk of an activity to be slightly higher than the perceived competence from the participants point of view in order for the participant to reach personal growth rather than remain on the same level (Bunyan 2011, 12). In both theories the presence of an appropriate amount of risk is seen as essential in reaching personal growth through AOE methods. As described in chapter 3.1, one basic requirement which needs to be met for personal growth to unfold is psychological safety. Therefore, to reach the goal of personal growth through AOE methodology the learner needs to feel safe. This feeling of safety includes not only the physical safety of the learner, but also the psychological safety. Psychological safety has been defined by many professionals as summed up by Frazier and colleagues (2017). The presence of psychological safety is essential to reduce mental barriers and open possibilities for change and personal experimentation by creating an environment that allows for failure without negative consequences. Psychological safety also includes social safety by conveying the believe that a certain group is safe for mental and emotional risk taking. (Frazier, Fainshmidt, Klinger, Pezeshkan & Vracheva 2017, 115-116.) This importance of creating a program which

supports both physical and psychological safety highlights the value of an appropriate and competent instructor and a supportive group environment for any AOE activity as defined by Bunyan (2011, 9). While AOE programs generally include some kind of physical activity (Bunyan 2011, 9), the main focus in AOE lies on the educational aspects (Sibthorp & Ewert 2014, 5-6). To foster the educational value of AOE programs it is important to achieve authenticity, agency and mastery (Beames & Brown 2016, 34-94). Authenticity can be reached through creating activities that feel real to the learner by being connected to the learner's everyday life, whereas promoting the learner's agency includes possibilities for the learner to make meaningful decisions which have a concrete effect on the learning experience. To reach mastery in a certain skills the learner needs to be intrinsically motivated and dedicated to invest time in practice, but AOE programs should support the learner in reaching mastery, seen as a successful application of the trained skill or knowledge. In addition to these elements described above, for AOE programs to reach the stated goal of personal growth in the participants it is important to have a clear and thought-through structure combined with a well-founded educational purpose. (Beames & Brown 2016, 34, 51, 64, 94.) Following the list of elements which are central to AOE, it is worth highlighting the value and need of a clear structure built around an established educational purpose, as this is how these different elements are combined and applied in a way that supports the educational goal and gives direction to the program. In a scenario where forging activities might be incorporated in an AOE program it is important to understand and determine the educational purpose of using such an activity and create a structure in which this activity is well embedded in a wider context to reach the stated program goals.

Throughout this thesis all the elements mentioned in the definitions above are acknowledged as valid elements in the process of understanding and defining AOE. The mention of AOE in this thesis work this will refer to an activity in a group setting facilitated by a competent instructor. The activity is authentic, strongly connected to and influenced by the natural environment in which it takes place, involves elements of uncertainty and risk, promotes the agency of the participants and has a potential for the participants to reach mastery. There is physical activity involved to some degree and a sense of overcoming fears. The purpose of this activity is to promote personal development and growth through a clear structure and purposeful use of certain methods. However, all of those elements might not always be present all at the same time and in the same proportions. This is not an exclusive definition but rather a compilation of central elements of AOE to provide a foundation to answer the research question whether forging can be used as an appropriate tool in AOE.

As mentioned above, there is a strong focus on the educational aspects in AOE in line with aiming for personal growth in the participants. A concrete way in which educational results of an AOE program can be applied in the participant's life is through the so called transfer effect. Transfer effect describes the benefits that the learner gains from a particular experience that they will benefit from in future situations and future learning. Analyzing the transfer effect is also being used as a way to evaluate the effectiveness of AOE programs (Gass 1985, 18; Sibthorp, Furman, Paisley & Gookin 2011, 109). Seeing that the central goal of AOE programs is to enable personal growth in the participants (Hopkins & Putnam 1994, 11; Smith 1996, 14-16) a positive detection of transfer effect - which shows that a certain AOE program was effective - should therefore indicate the presence of personal growth in the participants. As a tool for evaluating the effectiveness of AOE programs, Gass explains the importance of transfer by using the example of AOE programs in the US carried out to prevent delinquency. If these programs fail to prove effective by showing a reduction in delinquency after the program, the program itself will lose support. (Gass 1985, 18.) Based on this information a confirmed transfer effect indicates a successful AOE program. To be successful, the central goal of personal growth in the participant should be reached in some way. Therefore evaluating the presence of transfer effect should be a possible tool in evaluating the presence of personal growth in this thesis research. However, this approach is not as reliable as evaluating personal growth based on the personal growth process model, because the initial foraging activity is not an AOE activity, which means that it is not necessarily an expressed goal of the foraging instructor to encourage personal growth. However, analyzing the occurrence of transfer effect after a foraging activity will still provide deeper insights into the effects of the activity and its applicability, while fostering transfer effect during the program still enhances the learner's possibility for personal growth through applying the learned skills and knowledge in future situations.

There are different forms of learning transfer which are described based on the definitions presented by Gass (1985), namely specific transfer, non-specific transfer and metaphorical transfer. Specific transfer describes the application of a learned skill – in Gass' example the correct hand positions while belaying – in a new situation where the same skills can be applied – the correct way to rappel. Non-specific transfer describes the recognition and application of shared concepts in two different learning situations, such as the ability to build trust towards others. The third form of transfer is metaphoric transfer, where the underlying concepts that need to be generalized by the learner are similar or metaphorical. (Gass 1985, 20.) The occurrence and success of transfer of learning is influenced by different aspects and mechanisms, such as the

instructor themselves, the skills taught, the support the learner receives, inspiration based on a feeling of admiration towards the instructor, as well as the group dynamics, the natural environment of the course and the course program itself (Sibthorp et al. 2011, 116-117, 122). This information can actively be used by the instructor by incorporating methods which specifically aim to encourage transfer effect into the program. Such methods and strategies are, for example, having the student take responsibility, creating learning commitments and goals before the program, creating a space for active learning with natural consequences and using reflection (Gass 1985, 22-23; Sibthorp et al. 2011, 123). Reflection is a valuable tool to encourage personal growth because it provides a space for students to internalize their learning experiences. Any identification of personal learning for the student increases the applicability of gained knowledge in future situations. Creating a connection between the current experience and future situations already during reflection sessions is another helpful tool in encouraging learning transfer. Further, successful alumni can be brought into the program, seeing that their own experiences of how they have applied the transferred learning after the course can inspire the learners to visualize their own learning transfer after the program. (Gass 1985, 23-24.) Sufficient understanding of the importance of transfer effect and especially the application of methods used to encourage transfer effect is important in this thesis research not only for the research analysis but already for the research preparation and implementation, as it creates a foundation to incorporate methods such as purposeful reflection into the foraging activities specifically to enhance transfer effect.

3.4 Foraging under the concept of AOE

To come back to the research question about the applicability of foraging as a method in AOE programs, this chapter will present foraging from the viewpoint of AOE methodology, based on the content provided in the previous chapters. AOE as an educational approach utilizes different methods, such as for example kayaking or climbing, to create specific learning situations and outcomes based on the key elements presented in chapter 3.3. This chapter presents the connections that can be drawn between foraging activities and the values, methods and key elements of AOE approaches to present the applicability of foraging activities as a method in AOE programs. Explaining these connections provides a base for the evaluation of the thesis

research, specifically for evaluating if foraging can be used as a tool in AOE programs. If foraging can be applied in AOE programs, then foraging activities should meet the key elements defining AOE as described in chapter 3.3. Through meeting these key elements foraging can fulfill necessary AOE values and support the educational concepts. Summed up, these key elements were defined as connection and interaction with the natural environment and the effect of the environment on the program, uncertainty, overcoming fears, an element of risk, having an appropriate leader and a supportive group, physical activity, educational focus, authenticity, agency and mastery.

The first key element, namely *activities taking place in a natural environment*, is a necessity for foraging activities to find suitable plants to forage, with the exception of very urban foraging – for example foraging from trees growing along streets in the middle of a city. Due to the inherent interaction with nature that comes with foraging (Spilková 2020, 318) and the resulting connection to the natural environment foragers have experienced spiritual feelings of being connected to nature (Poe et al. 2013; Poe et al. 2014, 14; Cooper 2016; Teixidor-Toneu et al. 2022, 116). Further, the environment clearly affects the program because it determines what plants can be foraged. Not only foraging can encourage this spiritual experience, as studies have shown a strong link between AOE experiences, especially in remote areas, and the understanding of having a spiritual experience. For most people who described a backcountry adventure experience as spiritual, one of the central attributes defining the spiritual experience as such was the feeling of transcendence, defined as the feeling of being connected to and a part of the whole world (Marsh & Bobilya 2013, 74, 79). It seems that both foraging and AOE programs can encourage the same feeling of transcendence and connectivity.

Another adventurous aspect of foraging described by Cooper (2016) is the fact that foragers can never be sure what exactly they will find when they go out searching for edible plants, no matter what the initial intentions were. Because the growth of certain plants at certain times depends on many different factors, foragers need to adapt and adjust according to the circumstances. (Cooper 2016.) Even in areas that are familiar to the forager the possibilities of foraging depend on the weather and other external circumstances which can be different every year. *Uncertainties* and adapting to changing circumstances present a clear connection to the key elements of AOE and a valuable tool at creating an interesting learning environment.

Considering the aspects of *overcoming fears* and an *element of risk*, foraging seems to fulfill these requirements as well. Besides from a lack of time one main reason for people not to go

foraging are safety concerns and lack of knowledge (Synk et al. 2017, 101). This is confirmed by my own experience that many people are afraid to eat plants straight from nature because they are afraid of poisonous plants, dirt or bacteria. I myself have felt this fear of whether or not my identification of a certain plant is reliable on multiple occasions – mostly irrationally, despite the fact that I had gathered this plant before and knew its distinguishing characteristics. Besides from personal fears that might not always be objectively justified, the fact that there are poisonous plants – some looking very similar to edible plant species as mentioned before (Łuczaj et al. 2012, 9; Joseph 2023, 13-14) – does present a clear risk when foraging. There are other environmental risks depending on the environment a person is foraging in and the conditions. For example, when foraging in the mountains the forager might be surprised by a sudden change of weather (Joseph 2023, 16). When foraging in a big forest or other any other area that doesn't involve clear landmarks, there is a risk of getting lost. When foraging in areas such as North America where encounters with wildlife, for example bears, are more common, these possible encounters present a risk which the forager needs to prepare for (Joseph 2023, 15), as it can create a potentially life-threatening situation.

Considering the next key elements of AOE they too seem to be relevant for foraging activities as well. It is certainly important for foraging activities to have an *appropriate leader*, especially when aiming for a more holistic impact on the participants rather than simply passing on concrete knowledge. Guided foraging activities are usually carried out in groups, therefore similar benefits of *positive groups dynamics* established in AOE programs might be easy to apply for foraging activities as well. While *physical activity* is generally not the focus of foraging, it certainly can be a very valued byproduct and even a motivational factor for people to go foraging (Spilková 2020, 318). When considering guided foraging activities such as the commissioner's foraging courses, the focus of the activity is usually *educational*, but limited to technical skills in recognizing and processing certain plants. As the educational aspect of an activity depends on the setting it is being used in – for example kayaking as an activity can be done simply for leisure, but it can be very educational in AOE context – foraging activities too should possibly be utilized in ways that promote certain themes of education.

In order for learning experiences to be *authentic*, Beames and Brown (2016, 57) state that the learner should be able to transfer the learning easily to new settings, proposing that if the learning situation is already relevant to the learner's life, the learning transfer can happen more easily as there is less need for challenging abstractions of the learning. For some children who grow

up in families that use foraging frequently these practices certainly are strongly connected and integrated into the child's daily life. The same applies for adults who are already engaging with foraging. For children or adults with no connection to foraging, foraging programs seem to be further removed from the one's life. However – although for some people foraging might seem of little relevance when food is being sold in the stores – it can be argued that foraging is still an authentic activity as it can be integrated into everyone's life on a regular basis and it is deeply connected to our own survival (Curry & Williams 1975, 46; Irving 2006). Closely linked to the discussion about authenticity is the topic of place-responsive education, where the place of the learning and the different elements and teachings which a specific place offers are of high importance (Beames & Brown 2016, 57-59). This is the case with foraging activities where the foraging possibilities and teachings directly depend on the place and the plants that grow there in certain seasons, which in turn creates the base for the interaction with the environment.

Considering the aspect of fostering the learner's *agency*, foraging programs can provide a good frame for the learner to make relevant choices, starting with the question of where to go. The decision about what kind of environment to go to, for example a forest versus a meadow or a moist environment versus a hill top, brings about major changes to the realistic outcomes of a foraging expedition because the different environments are inhabited by different plants. Once the group has arrived to a specific environment, there are usually many different plants around. If the instructor has sufficient knowledge, the choice what plant to learn about can be given to the student. Even if the student is interested in inedible plants, they are often worth learning about. There might have been traditional uses for medicines associated with that plant, other uses such as producing a dye or strong fibers to create fabrics, or the plant might be poisonous and therefore good to recognize in order to safely avoid ingesting this plant. If the learner has chosen an edible plant to learn about, or if the goal was to actually gather and prepare wild herbs for their food use, there are usually many different ways in which a plant can be eaten or used as an ingredient for a more intricate dish. All these choices which can be given to the learner affect the outcome of the foraging activity and shape the learned content. Another element influencing the learning process is relevance. It will enhance the learning process if the learners themselves can see the learning task as meaningful in some form and connected to their own personal goals and development (Assor, Kaplan & Roth 2002, 264; Beames & Brown 2016, 69). If the learner can see a task as relevant it will foster an intrinsic motivation, which can lead to an increased feeling of autonomy and agency (Assor et al. 2002, 265). Coming back to foraging, both possibilities and challenges can be mentioned here. For some learners who are

already wanting to learn to forage the relevance is clear, but for students who might be more disconnected from a more natural lifestyle, living in the city and being fully immersed in consumerism, this relevance and connection to their own goals might be more challenging to convey.

The last key element of AOE presented in chapter 3.3 is *mastery*. While the topic of foraging is very broad and there are many different plants with different applications, a foraging activity can be planned around teaching correct identification criteria and harvest techniques for only a few plants which are easy to recognize safely. This would enable the learner to reach a skill level sufficient for a successful application of the knowledge quite soon. The learner can therefore reach mastery around foraging a limited number of plants and then gradually expand their knowledge further, including different plants and further aspects of the plants, such as for example their medicinal values.

To sum up the meaning of these paragraphs, it seems that the key elements of AOE can be fulfilled through foraging activities as well. This comparison and conclusion offers valuable theoretical information for this thesis research, specifically for the second research question whether foraging can be used as a method under the approach of AOE. As mentioned in chapter 3.3, the goal of AOE programs is to encourage personal growth in the participants. To further answer the question if foraging can be successfully applied as an AOE method, it is important to answer the first research question, namely if foraging can encourage personal growth and therefore reach the goal which AOE programs aim for.

4 THESIS RESEARCH AND PROJECT IMPLEMENTATION

4.1 Research methods

To choose an appropriate research method for this thesis I considered the amount of data I could possibly collect, as well as at the research objectives. The amount of possible research data stays within a relatively small scale, consisting of a theoretical maximum of 21 participants for the study I planned to carry out for this thesis. These 21 participants consist of a maximum of 10 participants admitted per course and the course instructor from Dodo who volunteered to partake in the study as well. My research objectives were to explore if personal growth can be detected based on the learning of foraging skills and to evaluate if foraging could be used as a tool in AOE programs.

There are two common research approaches, namely quantitative research and qualitative research. The focus of quantitative research practices as described by Leavy (2017) lies on generalization, a broad base of information and statistics. In quantitative research the goal is to achieve objective data and precise results, often in order to show correlations and causal relationships. To carry out quantitative research it is beneficial to have a larger number of participants for increased credibility. The study participants are chosen based on probability sampling strategies, involving a level of randomness and general applicability. With qualitative research, on the other hand, the focus lies on the depth of information and the subjective experience and meaning people attribute to their experience. To carry out this kind of research, the study participants should be chosen purposefully in line with the research questions and research topic. The research questions in qualitative research are generally open questions, often centred around asking “what” or “how”. This open-ended, or inductive, research approach allows the participant to produce meaningful in-depth data on the research subject. There are different common approaches to qualitative research, amongst them field research and interviews. (Leavy 2017, 77-79, 87, 109, 124, 128, 148.) Considering the small target group of my study and the purposefully selected individuals for my study – namely exclusively people who are motivated to learn more about foraging and ready to spend time and energy to do so – a qualitative approach seemed to be most appropriate. As mentioned above, in qualitative research the aim is to find depth and subjective meaning in the individuals perceived experience. For this study the most informative way to detect personal growth seemed to be through the meaning the participants give to their experience and their mental and emotional well-being.

Within this qualitative approach, the main method I planned to utilize was the use of inductive questionnaires sent out via email to collect data from the participants. One questionnaire would be sent out to the participants straight after each foraging course, which was also available in paper form at the end of the course program, and a second follow up questionnaire a month later. These questionnaires were intended to provide sufficient data from the participants to determine if they would be able to detect changes and inner developments connected to personal growth. When designing questionnaires for qualitative research it is important to ask questions that will provide sufficient data to answer the research questions, which, in the planning phase, highlights the need to anticipate how participants might respond to certain questions (Maxwell 2008, 236). In the case of this thesis, open-ended questions were used to collect qualitative data around the subjective experience and personal meaning from the study participants. These questions are partly based on questions used in a NOLS study about transfer effect (Sibthorp et al. 2011, 115). Through the questionnaires, the aim was to ask “what” and “why” to generate meaning from the participants, following the guidelines for inductive research (Leavy 2017, 128). To answer the research questions, the questionnaires were designed to collect data indicating personal growth through different questions. Additionally, there is a progression in the questions asked going from questions about the specific event - the foraging course - towards very open questions in the greater context of the participants’ development, life and mental state. The goal was to direct the participants to reflect upon their experience and to consider the impact of the learning in a broader context, to inspire reflection on possible learning transfers. This is based on Gass (1985, 24) expressing the relevance of connecting the current learning situation with future situations through means like reflection. I decided to send out two questionnaires to have a wider view of the processes unfolding for the participants and to allow more time for possible learning transfer and personal growth to be noticeable for the participants. Additionally, the second questionnaire can be seen as a follow-up experience encouraging self-reflection which is supportive to on-going learning transfer developments in the participants (Ibid., 24).

The following are the questions asked in the first questionnaire

1. Did you feel that you learned something meaningful on this course? If yes, what was it and why does it feel meaningful to you?
2. Do you think this (answer to 1) will continue to be meaningful in your life?
3. Where there any especially meaningful concrete moments during this course? If yes, what were they and why were they meaningful to you?

4. Did these moments (answer to 3) change your perception of something in your life? Do you think these moments will help you in future situations?
5. Do you feel a difference in your mental state after this course compared to before this course? If yes, what is different?
6. Are there other areas in your life where this feeling (answer to 5) will have a positive effect?
7. How do you expect to use the knowledge gained from this course in the future?
8. Are there other areas of your life that have nothing to do with plants where the experience and knowledge of this course might help you?

and in the second questionnaire

1. Have you continued to use the knowledge gained from the foraging course? If yes, in which ways?
2. Looking back, is there a difference in some emotion, feeling, mindset, attitude etc. since the course compared to before the course?
3. Answering this question now, what was the most important experience on the foraging course? Why was this the most important?
4. Has this experience (answer to 3) affected your life after this course? If yes, how?
5. Do you expect to continue to use the knowledge gained on the foraging course?

To add more depth to the research and to reach a more detailed understanding of the participants' subjective experiences I was planning to carry out one to two open-ended interviews per foraging group with some of the participants. This was supposed to support the findings of the evaluation of the questionnaires and allow me to get a deeper insight into the participants' experience. When conducting interviews, methods such as in-depth interviews can provide a good base for qualitative data. These interviews are commonly unstructured or semi-structured and use open-ended questions. (Leavy 2017, 139.) Another benefit which can be achieved by carrying out interviews is the possibility for triangulation. Using different methods to create data and combining these results through triangulation enhances the validity of the research by balancing out possible weaknesses and bias of the different methods. When using only one method there is the risk that the research results might be more strongly affected by these bias and weaknesses. (Maxwell 2008, 236.) Conducting interviews in addition to the questionnaires would therefore support the validity of the research data for this thesis study.

The first plan was that I would join both workshops for the full duration (four days including the travel days), which would allow me to engage with the participants, get to know them and observe both individual participants and emerging group dynamics. The inclusion of field research (compare Leavy 2017, 134-137), resulting personal observation and field notes would

be used to support research findings or interview topics and to add another dimension and research method to the data collection. Under the aspect of triangulation, including field research further minimizes the risk of representing the bias of a single research method in the research results. Additionally, I had planned to carry out a reflection session with the participants on the last full day of the course to encourage the participants to think about foraging in a wider and more holistic frame to enhance the possibilities of learning transfer. Reflection is a widely recommended tool to use when aiming to create a possibility for a transfer of learning to occur because it helps the learner to internalize what they have experienced and learned, a central element for learning transfer (Gass 1985, 23). My goal for the reflection was to provide means to link the present learning experience of foraging to future situations and different environments as suggested by Gass to enhance learning transfer (Ibid., 24). Focusing on the learning transfer seemed to be an important aspect in reaching the research objectives, seeing that detecting a transfer of learning is being used to evaluate the effectiveness of AOE programs (Gass 1985, 18; Sibthorp et al. 2011, 109). As explained before, a successful AOE program should include the presence of personal growth in the participants, as this is considered the central goal of AOE (Hopkins & Putnam 1994, 11; Smith 1996, 14-16). It can therefore be assumed that if there is a positive learning transfer detectable based on foraging activities it could be seen as successful in an AOE setting. Further, being seen as successful in an AOE context should include that the central goal – personal growth – is being reached. It seems that encouraging learning transfer based on foraging activities would enhance both the applicability of foraging in an AOE context as well as provide opportunities to enhance personal growth.

Considering that this thesis study is only using qualitative research highlights the importance of acknowledging the weaknesses and possible bias which might influence the research results, as there is no other research approach balancing out the results from a different perspective. As presented by Willis (2015), in qualitative research the researcher has a very central role in the analysis of research results. Instead of using numerical or statistical software as for example in quantitative research to evaluate research results based on numbers, the process of qualitative analysis involves the researcher going through the collected word-based data, looking for consistent themes and other significant results. This allows space for human bias, as the researcher's worldviews and background might be influencing their interpretation of the research results. (Willis 2015, 7.) Awareness and acknowledgement of the influence of personal bias is important for this thesis study to minimize the interference of personal bias with the research results and to clearly communicate personal thoughts, which enables the reader to understand

and identify the possible personal bias. According to Maxwell (2008, 243) the communication of personal bias through the researcher plays an important role for the validity of the research, seeing that it is impossible to eliminate all personal bias.

4.2 Practical implementation

As mentioned before, the commissioner Dodo was organizing two multi-day foraging programs in May. These were kept in Isnäs, located 75km east of Helsinki on the coast and consisted of two full days of foraging activities plus the evening of the day before to arrive and the morning of the day after to leave. One of these courses was held over the weekend while the other one was held during the weekdays. The courses were carried out in collaboration with Labby in Isnäs. Labby started as an organic farm but is now working mainly as a catering business using foraged and gardened produce for their meals, as well as carrying out some educational projects. The groups were accommodated by Labby and foraged to a big part on their premises. Meals were provided as well and one of the owners of Labby was partly guiding the foraging activities in addition to the responsible instructor from Dodo. In exchange, all of the foraging produce went to Labby to use throughout the next year in their catering work. This means that the course participants gained knowledge, skills and practice in both identifying and gathering edible plants as well as processing them for storage. However, they did not forage for their own use during this course, with the exception of salad ingredients – such as ground elder, dandelion leaves, yarrow etc – for the shared meals. They did get to taste some of the processed foods stored from last year in their meals which were prepared by the hosts. And of course, many plants can be tasted while foraging.

The participants of these two courses were very mixed in their previous exposure to and knowledge of foraging. While some hadn't really been foraging at all, others had done so as children and wanted to refresh their knowledge now as adults, and again others had already taken other foraging courses within the last few years and wanted to expand their knowledge and practice. They were also mixed in ethnicities and nationalities. The workshop was held in English, so in addition to Finns there were participants from other European countries, Russia, Turkey and even China, all living in Helsinki at the moment. During the course the participants were given a lot of responsibility because once the instructor showed a certain plant, explained how to recognize it and showed the general area for foraging the participants foraged on their

own. No one was double checking their produce, instead they were given the trust that they are able to collect the correct plants.

As agreed with the commissioner I was going to join both of these workshops to get to know the group members and observe the group dynamics, as well as to hold a reflection session in order to encourage the participants to view foraging in a wider context for the development of learning transfer. However, due to personal reasons I was unable to join the workshops on the first day, so I ended up joining both workshops on the second day which was the first full day of the program. This meant that I was unable to observe the group dynamics and individuals at the start of the program in the first stage of group forming. It still left enough time for me to get to know the individual group members and observe their ways of interacting and working together for a big part of the foraging course. During the course which consisted of the two full days, the program was split into foraging outdoors in the mornings and processing the foraged plants in the kitchen in the afternoons. However, the program was evolving a lot based on the group, the time it took for certain activities and other elements such as the weather. In practice, the planned schedule gave a rough frame but there was a lot of variation during both courses. Additionally, some participants left already after the second full day of the course instead of staying until the next morning. Due to all these program changes and varying schedules of the participants, the planned reflection session I was going to carry out changed in character, timing and depth. Instead of having an actual reflection session on the last morning after the program I ended up using the meal breaks on the last full day of the program to prompt the participants to think about what foraging means to them in a wider context. I decided to open this conversation by relating to my own experience with foraging and the changes in my attitudes and actions which I was able to detect based on the increased foraging knowledge I was gaining. My goal was to raise the participants' awareness to the possibilities of such knowledge transfer and to possibly inspire them to see similar connections in their own experience, which was based on the suggestion to include former participants who have successfully experienced a transfer of learning and its application in their lives. This is to inspire the current course participants and to open their minds to ideas of how they could possibly use the knowledge gained in the future themselves. (Gass 1985, 23.) While I was not a former course participant, I wasn't an instructor either, so it seemed that I was able to fill this position as a fellow forager who has experienced a successful transfer of learning based on my foraging experiences. I then opened up the conversation for everyone who wanted to share their own viewpoints and experiences.

These discussions – while on the spot and relatively limited in time – still provided very insightful points of view and showed that many of the participants were indeed able to connect a deeper meaning to the practice of foraging. I believe that these discussions were able to prompt others to contemplate some of the points mentioned and maybe find something of value for their own lives from it.

To collect the research data I was asking for the participants' email addresses in order to send out the questionnaires, one straight after the course of which I also had a paper version printed for those who preferred to fill out the questionnaire in paper after the last full day of the course and the second questionnaire about a month later. Despite the fact that all the participants in both courses agreed to partake in the study I received a rather limited number of questionnaires back. From the first weekend, four participants answered the first questionnaire and three the second. From the second weekend, three answered the first questionnaire and two the second. The answers come from participants with mixed levels of previous foraging knowledge and experience.

To conduct interviews with some of the participants I was presenting the frame of a possible interview setting while asking for volunteers during the course as well as in the emails I sent out, however in both courses none of the participants indicated to be available for an interview despite repeated mentions. This means that I will be working in the results analysis with the answers from the questionnaires, supported by my field observations.

5 RESULTS

5.1 Research findings

The goal of this thesis study was to determine if participating in foraging activities and learning foraging skills are able to encourage personal growth in the participants and whether foraging might be a promising tool for AOE programs.

To be able to collect data which would provide enough information to answer these questions, the participants were asked different open questions in the questionnaires as presented in chapter 4.1, all aiming to produce data that will allow me to analyze whether foraging enabled the participants to experience a deeper, meaningful experience beyond the activity of collecting different edible plants. Because all the questions were aimed at the same purpose, I will not present the answers to each question separately, but instead give an overview of the topics mentioned. I will include specific quotes of the participants and the context of the questions asked when needed for clarity. To minimize the risk of my own expectations and world views interfering with the participants' answers as presented in chapter 4.1, I aim to present the participants' answers directly, clearly marking my own thoughts if I make such additions to the collected data.

Leavy (2017, 150-151) sums up the importance of a first immersion in the collected data to understand the results and focus on the initial research questions. Through my first immersion in the collected data, I noticed that – while the depth of the participants' answers and described experiences varies – there clearly seems to be a connection to my research topic, the possibility of achieving personal growth through foraging. Further immersion in the research data and value coding (Leavy 2017, 151) of the participants' answers show that the topics mentioned most often are *transcendence and nature connection*, *independence* and *community*. Coding in qualitative research is being used to break down the collected data and establish categories to create a general understanding of the data and different themes emerging, as well as to organize the data, compare data within or between different categories and validate general ideas (Maxwell 2008, 237).

Within the theme of transcendence – the feeling of connectivity – and nature connection there are different aspects that were mentioned by the participants. One aspect, described by two participants, was the experience of going “back to the roots of how people already centuries

ago collected food”, “where one can pick their own meal” which was meaningful to them. Another participant mentioned how important it is to “feel our own primitive skills like looking for food [and] foraging”.

In addition to this aspect of connecting with our own roots, another participant mentioned the connection to the world around us, describing the feeling of being “always surrounded by living beings” as “amazing”. For this participant it is important to not only know this with the mind as a fact, but to have the experience to be able to “know(--) it with your heart”. Following this statement, the participant described foraging as an “engaged interaction with the non-human beings we are surrounded with” and a “constant reminder of how deeply we are interconnected with the web of life”. Another participant described learning to “coexist with nature” as a part of foraging that feels meaningful, yet another one mentioned the “feeling and understanding [of] being a part of nature” in the context of foraging.

The feeling of nature connection expressed by the participants also involves the responsibilities we as humans have in our actions toward nature, recognizing the “responsibilities of foraging” and that “foraging is not only for me to eat. It’s about nature, environment, sharing, learning, teaching, caring”. Another participant writes that “we shall be in awe of the nature so we truly feel care for it as for our little selves”.

Still within the broad topic of transcendence and nature connection the time spent outside in a “relaxed” and “easy” way, helping to “immediately switch to something else in your mind” or reach a state of “mindfulness” or “flow” and an attitude of “staying calm, present and acknowledging the world around us” were mentioned by four participants as a possible benefit of foraging.

Three participants answered that the foraging weekend clearly reinforced the knowledge of how important a lifestyle connected to nature is to them. Two of those participants consider a change of occupation toward more nature related jobs. The other participant mentions that this foraging weekend was “one of the first weekends (--) since I arrived to Helsinki in January that left me really relaxed and recovered.” This translated into feeling “very ready and even motivated to start the new week”.

Within the topic of independence, participants saw the ability to find edible food in the forest as a possibility to be more independent from “systems”, such as “capitalistic food production”.

One participant described that being able to find food from nature causes a decrease in depending on external factors for sustenance, in case there “comes a day when suddenly fresh food delivery to the markets [stops]”. Another participant mentioned this topic in conversation, expressing that rediscovering the foraging knowledge she was aware of as a child did in fact cause her to feel independent and able to survive. This participant also noticed that whenever wild herbs are included in her diet, she experiences a decreased appetite and needs less food to feel fulfilled. This is most likely due to the high nutritional density of wild plants (Kuhnlein & Turner, 1991), as well as the effect of bitter components in wild herbs (Rezaie, Bitarafan, Horowitz & Feinle-Bisset 2021; Barron 2023). This enhances her feeling of being able to survive – I would assume in the context that she needs less food for sustenance which is easier to obtain.

Being able to pick “nutritious food for free” as mentioned by two participants is something I choose to place under the topic of independence, because it creates more independence in the choice of how one wants to spend their money. One participant mentioned the toxins in commercial food due to pesticides, herbicides, fertilizers etc and possible health damage due to consuming those, whereas wild foods – when picked in clean areas – offer a healthier alternative. I choose to place this point under independence, because learning to forage creates the independence to even make an alternative choice about what to consume. In conversation one participant mentioned that “it’s nice to know that we are surrounded by edible things”. While not exactly talking about independence, it does seem that this realization is closely connected to both the topic of being more independent and not relying on supermarkets to find edible products, as well as the topic of being connected to our natural world, because we are surrounded by plants that are edible for us straight from our environment. When I arrived to join the first course it was lunch time on the first full day which included a salad made from wild herbs. When I commented on it, one participant immediately responded “we are proud”, showing a sense of accomplishment at being able to pick salad ingredients themselves rather than buying them.

Under the topic of community I sum up the recurring mention of the positive impact of being in a group, getting to know the other group members and doing tasks together. This positive group environment was mentioned by different participants in statements such as “it wasn’t just about foraging, it was about foraging together. It felt like I was in a community”. The participants mention the meaning of getting to know each other while working, seeing “the work on

processing the plants” as a catalyst to create a connection between the group members and remarking on the importance of “community, sharing and togetherness”. As one participant describes the group experience:

“All the participants were very friendly and easy to be around, easy to laugh with. We had not a single argument during the 2-3 days there, and while we were a bunch of ‘random’ individuals brought together, it was surprisingly easy to collaborate/ perform group activities” (Participant 1).

In the next answer that same participant expresses how “these moments have probably reassured me yet another time that sharing same values matters the most in finding connection with other human beings, and that collaboration is the key to harmonic relationship and reaching mutual goals”.

Out of all the returned questionnaires the depth of the answers between the different participants and between the different questions vary, however, it seems that with the exception of one participant each person had a meaningful experience. The participant who was not able to connect a deeper meaning to the foraging weekend still described the camp as a “nice memory”, mentioning enjoyable social situations and expressing being open toward the possibility of learning more about foraging at some point. This participant also mentioned considering the foraging knowledge to bring “interesting perspectives to give to people in conversations (--) about a zombie apocalypse or any situation where you would have to survive by yourself in nature (--)”. This statement might have been meant partly as a joke, but seems to fit in well with the independence to find food in case of a crisis mentioned by other participants. However, this participant also mentions that “most of the foraged plants didn’t taste like anything to me sadly, and/or they made my body feel uncomfortable” which might have impacted the person’s experience of the foraging course.

5.2 Research analysis

My initial realization in analyzing the research findings was the number of correlations between the subjective experience of some of the study participants of my thesis work and the experience of foragers described in professional literature presented in the knowledge base. Even though this thesis study is carried out on a very small scale this seems to validate my own research findings as well as validate foraging as a possibility for meaningful and possibly formative

experiences. Further, these research results seem to support a positive relationship between foraging and personal growth, as well as between foraging activities and AOE programs which were the main questions guiding this research. Looking at the limited amount of data – twelve questionnaires in total – the analysis of the data will be only qualitative, suggesting possible connections and ideas for further research.

As discussed in chapter 1.2 foraging has been a major pillar to humanity's survival for thousands of years. Similarly, three of the participants in my study mentioned the importance of this deeply rooted, “primitive” and “back to the roots” connection they experienced through foraging. It could be concluded that they were indeed able to connect deeper with themselves and their identity as a human being coming from a lineage of ancestors dating back to times when foraging was basic knowledge to survival. The fact that this experience was meaningful to these participants might also support my personal assumption that the simple fact of how deeply rooted foraging is in human history might create a gate through which to access deeper personal levels of ourselves and therefore create an opportunity for personal growth and development.

When looking at the topic of connecting with the nature around us, there too are surprising similarities between my own research results and the knowledge base chapter. As discussed earlier, foraging can create a feeling of connectivity through active interaction and engagement (Spilková 2020, 318), a sense of belonging in nature and a more spiritual understanding of existence (Poe et al. 2014, 14). In the data collected in this thesis research participants mention the feeling of being “always surrounded by living beings”, describing foraging as an “engaged interaction with the non-human beings we are surrounded with” and a “constant reminder of how deeply we are interconnected with the web of life”, as well as “feeling and understanding being a part of nature”. A sense of belonging is also expressed in the statement of one participant, explaining that “as I get to know the wild grasses in the Finnish forests, I forget my own foreignness. It's like having new familiar faces in the forest.” All of these phrases are deeply spiritual in the sense of a human-nature connection, a feeling of connectivity in general and an enhanced sense of belonging.

Connection and interaction with the natural environment is one of the key points in defining AOE (Sibthorp & Ewert 2014, 5&6) and as explained by Marsh & Bobilya (2013, 74) AOE experiences can elicit a spiritual feeling of transcendence and connectivity as well. The presence of transcendence and nature connection in the participants' experience of foraging activi-

ties enhances the connection between AOE experiences and foraging, as well as between foraging and personal growth on a spiritual level which involves the question of one's relation to one's surroundings (Smith 1996, 2).

After the foraging weekend two of the study participants expressed thoughts on the responsibilities toward our natural environment, which correlates with one subprocess of the personal growth process model based on Maurer and colleagues. They include taking responsibility as a subprocess of personal growth, meaning to recognize one's actions and accountability towards oneself and others (Maurer et. al. 2023, 7). Understanding and considering the responsibilities we as humans have towards nature, the consequences of our actions and our accountability are part of this subprocess to personal growth, thereby indicating that a personal growth process seems to be unfolding for these participants.

Supporting the argument presented by Curry & Williams (1975, 46) that being exposed to foraging experiences opens a wider spectrum of possible interests and vocational callings, two participants mentioned considering a change of occupation, namely working in nature. Considering changes towards occupations that seem more fitting to the participants also supports certain subprocesses of the personal growth process model. Considering a change of occupation might indicate increased self-awareness. Through increased self-awareness the individual is able to get to know themselves better and recognize possible dissonances between the inner self and the outward actions. Only through this recognition can someone adjust their behavior and life circumstances in a way that both inner and outer experience are aligned and the individual can live more authentically. (Maurer et al. 2023, 5-6.) One such adjustment could be a change in occupation in a way that feels more aligned with one's values, beliefs and experiences. Again, the presence of one of the subprocesses of the personal growth process model seems to indicate unfolding personal growth in the individual.

Moving on to the theme of independence – ranging from saving money by collecting wild herbs and therefore gaining more financial independence to considerations about being able to find healthy food in case of emergencies or economic crisis – shows similar connections to the literature presented in the knowledge base. As presented in chapter 5.1, two participants expressed freedom from systems they want to avoid, one of them pointing out the possibilities of limited access to food. Based on the context of that participants answer I would interpret the hypothetical reason for this scenario to be a political or economic crisis. As described by Poe and col-

leagues (2013) gaining independence in the acquisition of food means that people are less controllable by authorities who regulate access to food. The participants in this study seem to – at least partly – experience this independence in a similar way. The feeling of independence coming from acquiring one’s own food and the resulting feeling of freedom from external systems directly impact the belief that one is able to live autonomously rather than being at the mercy of external forces. This belief is called an “internal locus of control”. It is an aspect of autonomy which is another subprocess of personal growth. (Maurer et al. 2023, 7.)

It could also be assumed that the fact that these participants mention independence from political and economic systems or increased ability to survive in emergency situations shows that a transfer of learning may have already occurred. As described earlier, transfer effect is the name for the benefits from one particular learning experience which will help the learner in future situations (Gass 1985, 18). Generally speaking, political systems and “capitalistic food production”, as well as the possibility of an interruption in food delivery are clearly different situations than foraging in nature. However, as these participants gained confidence and independence at recognizing and picking edible wild plants, they recognized the advantage that this knowledge can bring them in different areas of life. Simply put, picking wild greens for a salad therefore might in fact have the potential to increase a person’s confidence in their ability to live a self-determined and self-sustained healthy life.

Another point to analyze in more detail is the sense of community described by the study participants. It seems that for many participants the positive group experience was very meaningful and an important part of the holistic experience of the foraging course. Several of the participants remarked on the importance of sharing similar values, collaborating and working together while getting to know each other. Both groups had very good group dynamics and seemed to work well together, based on both the participants answers and my own observations. Especially in the first group the participants also seemed to spend most of their free time playing games or partaking in other group activities. This supports the theory presented by Curry & Williams (1975, 46) that foraging programs can create a feeling of community by involving different people while working towards a shared goal. It seems that the common interest in nature and edible plants and the shared work indeed sped up the group development and interaction between the different group members; similar interests and values adding a good base for conversation. Being in a supportive group is one of the key elements of AOE as defined by Bunyan (2011, 9) which supports the potential use of foraging activities in AOE context.

Briefly discussed in chapter 3.4 are the findings of Marsh & Bobilya in regards to the key elements of adventurous backcountry experiences that cause the participants to describe the experience as spiritual. Those key elements were “a transcendent experience, increased awareness, connection to others, and a sense of fulfillment” (Marsh & Bobilya 2013, 74). As a transcendent experience they define the feeling of “being one with the universe” and “connected with all things”, reaching a “state of no-mind”. Awareness includes increased self-awareness, reaching new perspectives and “greater life realization”. Fulfillment is considered to include authenticity, the feeling of being alive and an excitement about life and accomplishment (Marsh & Bobilya 2013, 79). These are elements connected to an adventure experience. However, all of these elements can be found in the answers of the participants of this small-scale study around foraging. There were participants who had a transcended experience of being connected to nature and the “web of life”, as well as to their human ancestral roots. Other participants experienced greater awareness around their responsibility toward nature as well as their own path in life. Participants expressed the experience of their mind calming when foraging, which is an element of both transcendence and awareness based on the definitions used by Marsh & Bobilya (Ibid., 79). Connection to the group and the feeling of community were expressed by many of the study participants and a sense of fulfillment and accomplishment was experienced by being able to collect for example salad ingredients independently.

It looks like both AOE methodology and foraging experiences can guide the learners towards the same core topics and similar internal processes, especially in the context of providing a frame for what can be perceived as a “spiritual experience”. Smith (1996) is discussing the importance of the spiritual experience in AEO programs. He defined the “spiritual quest” as “an individual’s attempt to clarify personal values about life, death, the universe, a Supreme Being, and/or a search for understanding, meaning, purpose and direction”. He considers this search to be spiritual as each individual is searching for clarity about their own identity, the reasons for their existence and guidance for their direction in life, as well as their relationship to the world around. Circling back to AOE related programs he reasons that psychological program goals are inherently connected to the participants’ holistic development, which means that the learning outcomes automatically affect the spiritual dimensions of learning and awareness as well. This is because the personal growth of the client, which Smith defines as “development/transformation of the Self” and which AOE facilitators aim for, inherently “involves seeking awareness and understanding of all that is” which includes different layers of spirituality. (Smith 1996, 15-16.)

Coming back to the research questions, namely the possibility of personal growth through foraging activities and the possibility of using foraging as a tool in AOE programs, these results seem to indicate positive relationships. As described throughout this chapter there is a variety of similarities between foraging and AOE programs, especially when it comes to underlying processes and holistic impacts on the individual. Especially when providing the frame for the participant to have a spiritual experience both AOE methods and foraging encourage similar experiences and subprocesses. The central goal of AOE programs is to encourage personal growth in the participants. Considering the similarities between the setting and results of foraging activities and AOE activities presented, it can be assumed that a carefully planned foraging activity can fulfill the same goal as other AOE methods aim for – the personal growth of the participants. This would both include foraging as a valuable tool in AOE programs, as well as validate the possibility of reaching personal growth through foraging activities. Further supporting the presence of personal growth is the analysis of the personal growth process model. The results of this study correlate with several of the defined subprocesses of personal growth. If these subprocesses are a necessary part of personal growth, their presence should in turn indicate the presence of an unfolding personal growth process.

6 CONCLUSION

6.1 Summary of the research results

Analyzing the participants' answers from this study and comparing these results to the professional literature around foraging, personal growth and AOE programs, does seem to indicate positive relationships between foraging and personal growth, as well as between foraging and AOE programs. Many of the basic requirements for AOE programs are integral elements of foraging as well, and both AOE methods and foraging seem to be able to create similar learning experiences for the participants on a holistic level. This is especially noticeable when it comes to spiritual and transcendent experiences. Foraging seems to be highly successful at creating a feeling of connectivity and transcendence which could be very beneficial in reaching certain goals in AOE programs. Also the feelings of independence, self-awareness, taking responsibility and autonomy seem to be affected by foraging activities. Supportive group dynamics during the foraging courses were highly valued by the participants. A successful integration of foraging into AOE programs should inherently indicate the possibility to encourage personal growth, because personal growth is a main goal of AOE (Smith 1996). Additionally, the analysis of the personal growth process model (Maurer et al. 2023) shows correlations between the subprocesses of personal growth and the research results. It seems that the participants of this study experienced shifts in self-awareness, autonomy and taking responsibility, all of which are part of the bigger and more complex process of personal growth.

For the commissioner, the results of this thesis provide a more holistic understanding of the impacts that their programs around foraging can have. The research results in combination with the professional literature will allow the commissioner to reach a grounded understanding of the key processes and impacts of foraging, AOE and personal growth. This information can support the commissioner in tailoring future foraging programs centred around reaching specific goals, such as for example connectivity, independence or personal growth in general. The research results also provide direct feedback on the holistic impact of the commissioner's programs and can therefore be seen as a validation of the commissioner's work. This thesis research and analysis can provide a base for advertising and promoting the importance of the commissioner's work in general and foraging programs specifically. To support the commissioner in advocating the information collected in this thesis and the possibilities of foraging I have agreed to hold a presentation about my thesis research at one of their waste food dinners

– described in chapter 2.1 – in Helsinki. Further applications of the information provided through this thesis research are entirely up to the commissioner’s choices.

6.2 Critical analysis of the research project and process

It is worth pointing out again the small number of questionnaires returned from the participants and therefore the small amount of data used for the research analysis. Seeing that the data was collected through two different questionnaires sent out to each participant it is very likely that some of the questionnaires analyzed are returned by the same participants, which lowers the number of individuals participating in the study further.

The data collected through the questionnaires is collected under a qualitative research approach and consists only of subjective thoughts and statements provided by the participants, there is no objective or quantitative data within this study to support the subjective qualitative data analyzed. There is a possibility for subjectivity in the data analysis as well seeing that it was carried out solely by myself. Despite aiming for the most neutral position when analyzing the returned questionnaires and using methods such as the described value coding, all the data coming from the participants’ answers consisted of written text which might have left some room for interpreting sentences and paragraphs through the lenses of my own experience and understanding.

In addition, some of the participants’ answers were indicating strong connections between foraging and personal growth as described in chapter 5 which correlated well with the written literature. These supportive statements and correlations lead to strong assumptions around the influence of foraging on personal growth. However, it is important to consider – once again – that these assumptions are based on the experience of a small number of individuals in this study.

Further, changes during the research process may have affected the research results. This includes the changes of schedule which meant that I could only join both workshops on the second day and wasn’t able to observe the participants from the beginning on and the adaptations of the planned reflection sessions, which may have also influenced the research results as participants were given less time and guidance to reflect on their experience as originally planned. Lastly, being unable to carry out interviews with participants was reducing the amount of data

available for the research analysis and preventing the collection of more in-depth data, as well as preventing the use of interviews as an additional source of data collection for triangulation methods.

In defining the presence of personal growth in the research results I was working with the personal growth process model by Maurer and colleagues in order to establish a clear base on which to judge whether or not personal growth is indicated. This provided clarity and a good framework for this thesis. However, working with one single model can certainly be limiting, as some aspects might be focused on less by these authors as opposed to others.

6.3 Outlook on further possibilities and future research

Despite the points discussed in chapter 6.2 this thesis research indicates interesting correlations between the subjective experiences of the participants of this study and discussions in professional literature, as well as correlations between the experiences of the participants and elements of AOE experiences.

Considering that there is very little professional literature linking foraging and AOE or discussing the effects of foraging on personal growth, I would highly encourage further research on these topics. One goal of this thesis was to open up the possibility of including foraging as a tool in AOE programs, if the research results can provide a sustainable base for this. Based on the data collected and analyzed there does seem to be sufficient data to suggest that further research on the correlations between foraging and AOE might hold promising results. I would propose that certain topics addressed in AOE programs such as transcendence or the spiritual experience of feeling connected to the more-than-human surroundings can be reached more effectively through foraging than through other common methods in AOE, based on the inherent close interactions with nature. The connection to our human roots too seems to be characteristic to foraging activities, enhancing the feeling of connectivity and transcendence. Another point in which I would propose that foraging activities might surpass the efficiency of traditional AOE methods is in fostering the belief in an internal locus of control through the experience of being more independent in acquiring food. Learning to sustain oneself provides a hands-on learning experience in the ‘real world’ which has an immediate effect on how dependent a person is on external forces to survive. Feeling less dependent on these external forces seems

to immediately affect the belief of how much one can have control over their own life. Foraging provides a very authentic ‘real world’ learning experience where there is not much need for a very abstract transfer of learning to reach this sense of autonomy. In this case I believe that foraging offers a more authentic setting than many other AOE activities that require a more abstract transfer of learning, where consequences of the learning on the feeling of autonomy are less immediate. These assumptions are based on the research results, connections to the professional literature and my own observations. They are only assumptions at this point and not statistically validated. Instead of presenting solid facts they are meant to provide incentives for further research and ideas for each individual to consider from their own background knowledge and experience. Incorporating foraging into AOE programs with the goals of reaching a deeper understanding of these aspects could be very interesting for both the instructor and the participants and I do want to encourage AOE professionals who have sufficient experience or appropriate contacts to consider this possibility. On a scientific level, more extensive studies would certainly be necessary to gain a more substantial understanding of the topic. It could also be valuable to conduct studies leading to quantitative data to support qualitative experiences and to validate the credibility of this field of study. Again, there is surprisingly little professional literature to be found on this topic, which I believe – based on the results of this study – is unjustified. For anyone aiming to fill the gaps in the professional literature around AOE, foraging and personal growth these topics could lead to interesting studies and results.

Of course, foraging could also be used by itself to encourage personal growth without the connection to AOE programs. However, due to the already existing parallels between foraging and AOE programs I believe that it is easy to incorporate AOE methods into foraging activities. I want to encourage not only AOE professionals to consider including foraging activities in their programs, but also foraging professionals to consider intentionally incorporating basic AOE methods to enhance the holistic impact of their foraging courses. Based on this research it seems that foraging can affect the personal growth of an individual. Because personal growth is a central goal to AOE, different AOE methods such as reflection are intended to enhance the internalization of the learning and the resulting personal growth. Using these methods in foraging activities should enhance the holistic effect of the learning on the participants.

Personally I believe that foraging and the especially the resulting feeling of connectivity and belonging, as well as being taken care of, are incredibly important nowadays. In these times when technology, financial gain and material wealth seem to be valued a lot more than feelings

of connection between humans or towards the non-human world, when nature is seen as a resource for financial gain rather than an amazing interconnected and animate base for our own existence which deserves deep respect and reciprocity, when many children don't even know where the food sold in the supermarkets comes from and many people seem to struggle with the negatives effects of disconnected modern lifestyles, I would hope that through foraging we can rediscover the power that lies in connecting with ourselves as individuals, with our human heritage and with our natural surroundings.

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APPENDIES

First Questionnaire:

1. Did you feel that you learned something meaningful on this course? If yes, what was it and why does it feel meaningful to you?
2. Do you think this (answer to 1) will continue to be meaningful in your life?
3. Where there any especially meaningful concrete moments during this course? If yes, what where they and why where they meaningful to you?
4. Did these moments (answer to 3) change your perception of something in your life? Do you think these moments will help you in future situations?
5. Do you feel a difference in your mental state after this course compared to before this course? If yes, what is different?
6. Are there other areas in your life where this feeling (answer to 5) will have a positive effect?
7. How do you expect to use the knowledge gained from this course in the future?
8. Are there other areas of your life that have nothing to do with plants where the experience and knowledge of this course might help you?

Second Questionnaire:

1. Have you continued to use the knowledge gained from the foraging course? If yes, in which ways?
2. Looking back, is there a difference in some emotion, feeling, mindset, attitude etc. since the course compared to before the course?
3. Answering this question now, what was the most important experience on the foraging course? Why was this the most important?
4. Has this experience (answer to 3) affected your life after this course? If yes, how?
5. Do you expect to continue to use the knowledge gained on the foraging course?