

THESIS

Using ecological gardening to promote nature connection, wellbeing, and group building.

A pilot service using experiential learning, mindful activities, and reflection to study the effects of nature and gardening together.

Angelica Salahub

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ABSTRACT

Humak University of Applied Sciences

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Author: Angelica Salahub

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This thesis project commissioned by Soltorp Ecolodge Oy aimed to create a cohesive course that combines ecological gardening with the benefits of group and nature. The course is built on service design, connection to nature, mindfulness, belonging, small group principles, and experiential learning. The methods included the design and implementation of the pilot service, participant observation, semi-structured interviews combined with photo elicitation method and questionnaires. Soltorp Ecolodge Oy must change to stay viable and offer new services for customers. The commissioner sees a rising demand for alternative services. The garden was underused, but the pilot course helped Soltorp move towards providing nature-based services.

Nature has always been a source of inspiration for artists and has provided resources, shelter, and sustenance for life on earth. However, human overconsumption of natural resources has caused a challenge for nature and its biodiversity. This has resulted in humanity becoming increasingly disconnected from nature and each other. Although artificial intelligence has been used to foster connection, it cannot replace the fact that humans are dependent on nature and each other. The course intended to foster this connection. The results of the thesis showed that all participants gained valuable learning experiences related to social skills and personal growth to the acquisition of new gardening skills.

The outputs of this thesis project are a multiday course program, thematic analysis of participant experiences of the pilot course, Angelica's model for creating wellbeing and nature connection services as well as feedback of the implemented course.

Keywords: experiential learning, wellbeing, mindfulness, group activity, relation to nature

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1 INTRODUCTION

This thesis project undertaken by Angelica Salahub studies the ways experiential learning, mindful activities, and reflection can be used to promote nature connection, wellbeing, and group building. The thesis project is commissioned by Soltorp Ecolodge Oy / Ab Soltorp hyvinvointi ja majoitus Oy. The objective is to develop and execute a new service which is based on theoretical frameworks of service design, nature connection, mindfulness, reflection, experiential learning, and group-based activity. The wellbeing benefits of nature and gardening are widely researched, yet there are only limited number of services that apply experiential learning into context of soft skills. The result of the thesis project is a pilot course which was executed in the summer of 2023 with a small group and the analysis of their experiences of the course. Multiple mixed methods are used to gain richer qualitative data of the participant experiences including questionnaires, interviews, and observations. The findings of the pilot course are analysed thematically and provide insight of the wellbeing effects of nature-based activity.

Nature has been a muse for artists, poets, and creatives throughout history. Nature has provided resources, shelter and is vital for sustaining life. Nature and its biodiversity have been challenged due to the overconsumption of natural resources by humans. For the indigenous people nature has been seen as its own entity, a home for all of us, which was respected and treated well. Somewhere along the life span of humanity there has been a rise of disconnection. This disconnection can be seen in the increased levels of loneliness worldwide. Keming Yang in his book, Loneliness: A social problem, states that loneliness is a universal emotion which negatively impacts our physical and mental health and according to Cacioppo and Patrick, "loneliness is the prompt that reminds us how much we depend on one another." (Yang 2021, 8-10, 18). The disconnection can be seen in the rise of artificial intelligence used to foster connection and the use of advanced technology to create more effective systems and a society.

But something that technology cannot replace is the fact that we, as humans, are dependent on nature and each other. For us to be truly well, we need to feel connected to nature and have social relations that foster a sense of belonging and help us to feel seen and heard. This thesis project aims to provide ways in which this connection can be restored.

1.1 Commissioner

The commissioner of this thesis project is Soltorp Eco Lodge Oy. Soltorp is not only a multi-generational family home, but a place of business with sustainable values. In the summertime Soltorp provides accommodation for travelers and groups in Porvoo and all year around they offer yoga lessons with breathwork and meditation. Soltorp partners with other wellness entrepreneurs that offer activities in Soltorp promoting a healthy lifestyle, these include but are not limited to, sound baths, dance journeys and women's circles. Soltorp Eco Lodge is only 4 km from the Porvoo centrum, yet it is surrounded by forests and an eco-garden. Soltorp has been running for over ten years and three generations still live in the building.

Marika Björklund, the owner of Soltorp Ecolodge, is exploring ways Soltorp can provide new services that meet the needs of the customers, including developing services that use the beautiful nature and garden in the land. During her gardener studies specializing in eco gardening, she realized Soltorp could provide a new service: all kinds of garden activities connecting to the earth and its many health benefits. The outside area of Soltorp has a lot of potential, yet it has been underused for years. Marika's philosophy is that by learning ways to support and take care of nature, the better nature can take care of us. Through simple and mundane acts, Soltorp could facilitate the opportunity for people to experience being present and increase their appreciation towards nature. The main purpose of the new service is to provide participants with their own felt experiences of connection to nature, presence and being an important part of a cohesive group.

1.2 Needs & Objectives

The needs for change in Soltorp are preserving viability and offering new services that meet the needs of the customer. According to the commissioner they have been asked for alternative services and there is a need for increased well-being and nature connection among various age groups. According to THL in the spring of 2021, anxiety and depression symptoms in both male and female young people had increased significantly compared to the measurement before the 2020 lockdowns. This shows the importance of creating well-being services and in addition digitalization removes individuals even further from authentic nature environments. Gardening has been used as a method for learning, building community, and improving well-being in youth in the capital area, however such a service is not offered in Porvoo.

The objective is to use the garden that is now unused as a learning environment and for activities that improve wellbeing. The objective is to create a new wellbeing service for Soltorp that is based on the theoretical frameworks of nature connection and wellbeing in groups, experiential learning as well as service design. The aim of the project is promoting connection to nature, oneself and belonging in a group, as these are significant factors in improving general wellbeing. I've noticed that disconnection from nature, ourselves and others, can lead to a lack of compassion which then leads to a careless attitude. This careless attitude can be seen for instance in the over consumerism and littering in nature.

The new service was tested with a pilot group. Measures include structured and semi-structured interviews, outdoor activities, and gardening to promote well-being and connection to nature. The goal of the thesis project is to create a new service for Soltorp Ecolodge that provides an experience of nature connection, mindfulness, and community gardening to participants. The product of the research is a three-day course for a closed group, the qualitative research results on the effects of gardening together and doing nature-connection practices in authentic learning environments. The third product is a model designed by me which illustrates the phases to consider when creating similar courses based on theory and personal experience.

2 THEORETICAL FOUNDATION OF THESIS

2.1 Service design

Service design is the process of creating and improving services in a way that meets the needs of the users and the business. It involves understanding the needs of users, designing an effective service delivery system, and delivering a high-quality experience. In the context of wellness services, service design is used to create new and innovative services that promote health and wellbeing. Many research studies demonstrate the effectiveness of service design in companies. The results of these studies showed that service design helps companies gain insights into customer needs and preferences. By involving customers in the design process, companies can enhance their understanding of customer needs and preferences, resulting in more customer-centric services. Companies can develop more efficient service experiences that result in increased customer satisfaction and loyalty. (Parasuranam 2010). Lastly, the results showed companies cultivate innovation and creativity as service design promotes creative thinking by encouraging companies to come up with innovative service ideas. (Durst & Mention 2015.) Service designers test and refine the new service concept until it meets the needs of the users and the business. This may involve conducting user testing, analyzing feedback, and making further iterations to the service design. (Polaine 2013.) By using service design principles, wellness providers can create effective and user-centred services that promote wellbeing for customers. For the pilot service for Soltorp three service design principles and methodologies were considered and applied.

The first way service design was applied in the thesis project was through doing secondary research on the benefits of nature, analyzing previous projects that used gardening as rehabilitation and in outdoor learning. Secondary data or desk research can be both quantitative and qualitative. It is primarily conducted to ascertain whether any previous research exists on a particular topic or research question. This enables the formulation of a more precise research question while identifying potential data collection, visualization, and synthesis methods. (Stickdorn, & Hormess et al. 2018 a).

Secondly, service design methodology was applied by creating a preliminary survey for participants of the pilot course to gain more knowledge about the group, their expectations, and needs.

The preliminary survey was only for the instructors and included questions about personal information of participants e.g. Possible challenges regarding the course, multiple choice questions, Likert Scale questions and open-ended questions for richer data. The questionnaire aimed to assess the importance of the different parts covered in the course for each individual participant. The course content mentioned in the survey were for example, maintaining a garden, collaboration, gaining practical nature connection tools, exploring the environment, learning new skills, increasing self-awareness, moving out of own comfort zone, and having fun. When participants were asked what they wished to gain from the course, the responses varied from: experiences that support wellbeing, basic gardening skills, new relationships, nature experiences and connection to self, to have fun, receive support for their own needs, to be gentler with themselves, and tools to relax. The responses to the multiple-choice closed ended question: What are you looking the most forward from the course? varied from feeling good, more outdoor community activities, and not knowing the specific reasons why they wanted to join the course but instead felt an intuitive nudge towards it. The full context of the preliminary questionnaire can be found in Appendix 3 and the results of the level of importance of different aspects of the course are demonstrated later in the methods chapter.

Lastly, an integral part of service design was applied using observation and feedback. An observation and a feedback questionnaire were methods to assess customer satisfaction during and after the course to gain knowledge of ways the pilot could be improved and learn about the main takeaways of the experience for each participant. Results from the feedback questionnaire are discussed further in the thesis chapters: Analysis and Future development.

2.2 Nature Connection

Our ability to listen and truly hear is deeply connected to our ability to be present, whether it is in a moment of discussion with a friend or tuning in to the subtle energies in nature. To feel connected to nature, one must be present with it. Mindfulness, the energy of being aware and awake in the present moment, practising being in the moment through activating the senses, or taking time to notice own thoughts. One simple way to connect with nature is by practising mindfulness outdoor. Mindfulness has been broadly studied for the last decades to better understand how practising mindfulness affects our behaviour and well-being. Baer et al. combined data of different studies done on scales of mindfulness and recognized the five subcategories within it. These categories include, observing, describing, acting with awareness, non-reactivity

to inner experience and non-judging of experience. All these aspects are intertwined with one another and describe the different aspects of mindfulness. (Baer et al. 2008). During mindfulness practises the intention is to shift one's attention to the "now" moment without attachment or resistance. For individuals to feel connected to something, being present with it, is the key. Mindfulness skills can help people to define the things that are meaningful to them i.e values and live in accordance with those values. (Puolakanaho, Kinnunen & Lappalainen 2016). Mindfulness, the importance of personal nature experiences and the use of multisensory activities are highlighted in the studies regarding nature connection. (Puhakka 2023.) Nature connection is not an accomplishment or something that an instructor itself can give to participants. According to Wahlsröm and Juusola (2017, 10, 26-31) most practices around nature connection are simple and do not require additional equipment. Practices can be related to different themes such as attuning to the environment, empowerment and improving social relations.

The practices in the pilot course that promoted nature connection are based on mindfulness. In practice they included observing details in nature, listening to silence, and becoming aware of one's thoughts and emotions.

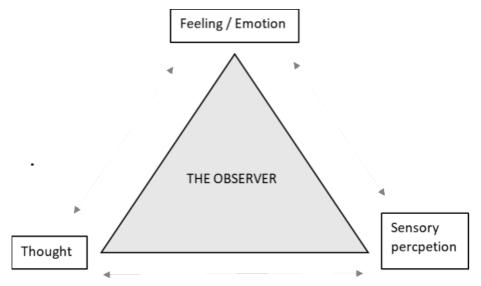


Figure 1.1 The elements of mindfulness in practice. The aim of mindfulness is to observe these different aspects with acceptance.

Nature connection is a personal experience of being in tune with the surrounding environment and nature. This includes the practice of becoming more sensitive to the present moment through simple activities like walking calmly and quietly in the forest, taking time to truly look at the beauty of flowers or listening to the sound of rain. All the above examples were part of

the pilot course content. By improving individual experience of nature connection, things like compassion, sensitivity, social skills, and wellbeing are developed. Feeling empathy for animals and plants, respecting life, sustainable behavior are factors connected to nature connection. (Wahlström & Juusola 2017, 10.) Ecopsychology gives knowledge and understanding of humans the diverse meaning of their relationship to nature. Human beings are created for nature and are a part of it. Methods and practices used by ecopsychologists guide participants to experience nature connection for themselves in a new way. Some would even say that the "new" ways are closer to the ancient ways of the indigenous people. (Wahlström 2006, 17- 21, 113).

According to the Sámi world view, man and nature were one. For the Sámi, nature has been a home, way of life, history, and the future. In their world view, nature and man need to be in balance for the well-being of both parties. The strength of nature was considered as part of the strength in humans due to their interconnectedness. The surrounding world and nature were respected, and its integrity protected so that the balance would not be disturbed. Sámi intended to adapt to the surrounding nature without changing it and using only natural resources as strictly necessary for survival. Even in the modern Sámi way of thinking, the understanding of the connection between man and nature is highly valued. (Sørly, Mathisen & Kvernmo 2021: Guttorm 2011). The Human-Nature relationship is commonly described as an attitude or sensitivity towards nature which implies that it is a quality that only some possess. The implication of is that the connection to nature is considered "somewhere" outside of us. This separation between humans and nature isn't accurate as none of us is able to live without the oxygen provided by nature. (Soinnunmaa, Willamo, Helenius, Holmström, Kaikko & Nuotiomäki 2021). This means that being connected to nature is evident whether one would acknowledge it or not. With this thought in mind, I wanted to include practical, hands-on activities that can allow participants to experience the Human-Nature relationship. One example of how this was done during the course was by asking participants to find a piece of nature with similar characteristics to themselves and then sharing their insights with the group.

One basic assumption of the multicultural human perception is that the relationship between human beings and nature is physical, metaphysical, and psychological. (Cohen 1994.) Literature around nature connection includes clinical studies of the wellbeing benefits, as well as ways in which natural environments can be used for rehabilitation. According to Riikka Puhakka, nature provides opportunities for emotional and cognitive renewal, improving emotional

and cognitive restoration as well as building stronger social relationships. Nature can be a powerful place for students to reflect on their lives and develop a stronger sense of self. In addition, few studies mention the spiritual benefits of nature, yet the generalizations based on these results are challenging due to small sample sizes and nature of the data. However, the spiritual benefits of nature include feeling of connectedness to a greater reality (Williams & Harvey 2001) and increased inspiration (Fredrikson & Anderson 1999.) The definition of spiritual well-being includes similar elements such a sense of connectedness, sense of inspiration, sense of purpose, awe, and inspiration as well as belief in a greater reality (Keninger, Gaston, Irvine & Fuller 2013.)

The awareness of the benefits of nature and its connection to wellbeing is becoming more common. Green Care Finland Ry is one of the pioneers of nature-oriented activity that focuses on wellbeing benefits and the use of the wellbeing knowledge for various services. It was established in 2010 with the purpose to coordinate, promote, and develop the use of nature and animal assisted methods together with well-being and health services in Finland. The organization includes two separate domains, Green Care and Green Empowerment. The services of Green Empowerment (in Finnish, Luontovoima) include activities supporting the overall mental and physical wellbeing of all people. (Suomi & Juusola 2016, 42). Methods and activities used in the Green Empowerment served as an inspiration when creating the thesis pilot project for Soltorp. These activities were modified to fit the needs of the participants in the pilot and the goals of thesis project.

The three main pillars of the Green Care working method are nature, action, and communality. By combining and highlighting these elements in diverse ways, one can cultivate a sense of wellbeing. Nature, with its revitalizing effects, experiences, and opportunities for involvement, plays an important role in this process. When a person participates in interactive elements and activities, they become connected to a group and may experience a sense of acceptance in that community. (Luke and THL 2017). This was one of the goals of the thesis project and it was reached by implementing nature-based methods that included individual and group activities.

2.3 Importance of belonging and benefits of small groups

Working with small groups provides an opportunity for each member to share their experiences and insights as well as hear the experiences of others. The instructor keeps in mind the different aspects of safety that are required for participants to feel supported and heard. This means that

communication skills can be practiced during the process. The optimal size for a small group activity is 4-10 participants. However, a group consisting of three people is the minimum for a group to be considered a small group. (Fujishin 2013). Optimally, when carefully planned and implemented, group-based activities can be resourceful and a motivating beginning, where the peer group itself can be an source of energy for the activity. Structured small group activity can strengthen self-awareness and self-trust that can help participants to find alternative solutions to their own life situations. Central attributes of group-based activity are openness, a feeling of belonging, and a safe and trustworthy atmosphere. Maintaining these attributes in the activity is predicated on the expertise of the instructor. Another key element of group-based activity is that each participant can actively participate in the activities and be in communication with another. This offers participants the chance to gain insights and receive peer-support through hearing and sharing their thoughts and experiences with one another. (Ståhlberg 2019, 17- 20, 61). An important aspect to consider in facilitating open discussions is that sharing can feel vulnerable therefore, the instructor should recognize and prevent any negative, harmful, or oppressive language if such arises. (The Edible Schoolyard Project 2021.)

The factors mentioned above influenced my decision to create a course for a closed group rather than an open group. The pilot course included practices in which participants were encouraged to share their experiences with one another. This was taken into consideration in the daily reflection sessions as well as including open ended questions to nature connection activities. For example, I asked participants whether nature has given them strength and in what kind of situations after an activity where we searched for the biggest tree in the area and placed our palms around to see how many pairs of hands would be needed to fully encircle it. In some cases, I would move slightly back to encourage participants to discuss with each other.

Brené Brown has studied vulnerability and belonging through grounded theory which is a method used to develop theories based on individuals lived experience rather than proving existing theories. She emphasizes the connection of vulnerability and feeling of belonging as vulnerability is the birthplace of trust, meaning and courage. (Brown 2012, 71, 112, 210.) Brown explores belonging through the way in which we are connected to another and how deeply we are connected to ourselves through self-acceptance. (Brown 2017, 32). Her quote below summarized the insights of her studies and it served as a guiding light in creating the pilot service program.

"We are going to need to intentionally be with people who are different from us, we're going to have to sign up, join and take seat at the table. We are going to have to learn how to listen, have hard conversations, look for joy, share pain, and be more curious than defensive, all while seeking moments of togetherness. True belonging is not passive, it's not just the belonging that comes with joining a group. It's not fitting in or pretending. It's a practice that requires us to be present with people without sacrificing who we are." - Brene Brown in her book, Braving The Wilderness. The Quest for True Belonging and the Courage to Stand alone.

A sense of belonging is a key element that can facilitate social inclusion through meaningful occupations. Horticulture is the therapeutic use of gardening, and one study found the different aspects of belonging that can occur through specific gardening activity. (Diamant & Waterhouse 2010). The findings are demonstrated in the table below.

Gardening activity	Aspects of belonging
Weeding	 Social interaction Belonging to those who carry out physical labor Belonging to those who garden Belonging to nature and its lifecycles
Harvesting vegetables	 Belonging to those who grow their own food Belonging to those who are able to see their plans coming in to fruition Belonging to those working with and in nature
Writing diaries	 Belonging to those with writing skills Social interaction Sharing experiences of gardening and seasonal changes Belonging to nature

Table 1. Aspects of belonging through gardening activities Diamant & Waterhouse 2010.

2.4 Facilitation of reflection

One way to assess learning and apply experiential learning in action is to reflect upon the experiences. According to Kolb's experiential learning model, the formation of abstract concepts and realizations requires observations and reflections of the original experience. This new data can then be used in testing the implications of the concepts in new situations. (Kolb & Fry

1975). Kaisa Pietilä demonstrated the importance of reflection before, after and during the process to improve the metacognitive skills of the participants and the instructors. Reflection is the process where goals and values are assessed and aligned to the activities. Reflection during the activity can show up as changing the program according to needs of the group and based on the feedback received. Reflection after the activities provides the possibility to gain insights into what was learned, to assess what the things that went well and where there could be improvement. The post-reflection can offer the possibility for the group to share what they learned from one another as well as about themselves. A key point of reflection is building a safe learning environment where group members feel comfortable sharing their feelings and learning moments. Reflection is a useful way that skills can be transferred into new contexts. (Pietilä 2020).

Acknowledging the significance of emotions is important in any kind of group activity. According to Daniel Siegel, feelings are our conscious awareness of emotions, in other words, feelings are the body's response that lets individuals know how they feel. When two people interact, their emotional centers influence each other. (Goleman 2006.) Positive social relationships heal us in a very fundamental way. When we are in positive communication and connection with one another, at best we can experience strong connection and positive resonance that affects us also on a physiological level. (Fredrikson 2001.) These demonstrate the importance of fostering learning environments that promote group cohesion.

One way to facilitate a reflection session that is mentally and socially safe is paying attention to communication and promoting listening skills. Dialogue requires participants to be active rather than passive receivers. In a moment of dialogue members are willing to listen to each other with interest and willingness to understand the other person's viewpoint as well as hear the personal meaning being conveyed to them. One way to practice dialogue is to listen to oneself and be aware of one's own reactions. (Vilen, Leppämäki & Ekstöm 2008). It is part of a group-based activity for participants to be in communication with each other and the instructor creates space so that everyone has a chance to share their experiences. Truly understanding one another can only happen by listening to one another. The listener should give space for the person to share their thoughts and experiences and be present to the person speaking. By doing so the listener can communicate to the person speaking, acceptance and an experience of being heard the way they are. (Honkakoski 2021, 130). Humans have their different skills, knowledge, feelings, and reactions that need to be tended in moments of communication. Reflection offers the possibility for attentive listening as the focus is to gain more understanding of one's own

and others learning during the process. The pilot course included end reflection sessions each day to encourage participants to share with one another their insights and experiences. In addition, in-action reflection occurred in both the participants and instructor.

Carl Rogers and Richard Farson popularized the term "active listening." This concept acknowledges that a sender's message includes not only verbal and nonverbal elements, but also emotions. Extensive research has demonstrated that actively listening with sensitivity is an incredibly powerful tool for both individual growth and group development. Engaging in deep listening has been linked to positive shifts in people's attitudes towards themselves and others. Individuals who have experienced this form of attentive listening tend to exhibit traits such as increased emotional maturity, greater openness to new experiences and decreased defensiveness. (Rogers & Farson 1987).

In other words, attentive listening is more about practicing being fully present, listening to understand rather than waiting for one's own turn to speak. Asking clarifying questions and paraphrasing the things that were spoken are ways to practice attentive listening. The research supports that group cohesion can be built through attentive listening skills as it communicates value and care for one another. One way to create an effective group is by showing ways to listen to understand rather than waiting for one's own turn to speak. A safe environment has an atmosphere of acceptance, and it can be communicated in two ways, both non-verbally and verbally. Acceptance can be conveyed through facial expressions, posture towards the person, eye contact, nods, voice pitch, tone, and inflection. Few verbal ways of communicating acceptance include, listening without interrupting, using verbal responses of acceptance, and inviting a person to share. For example, through phrases like; *Tell me more about it, I am interested in your viewpoint*. (Fujishin 2013). Reflective sessions can offer participants a feeling of being an important part of the group and that their experiences matter. Enough time should be planned for facilitated reflection sessions for it to be effective and safe. Connecting with one another is an opportunity for improving group cohesion and a feeling of belonging.

2.5 Experiential learning through gardening

Kurt Hahn is one of the pioneers in developing the concept of experiential learning. It is a method of learning that focuses on hands-on, practical experiences as a means of gaining new knowledge and skills. Experiential learning requires actively engaging with the subject matter

in a real-world setting to gain a deeper understanding of the subject. It includes active learning, problem solving and opportunities for learners to gain their own hands-on experience. (Wurdinger & Carlson 2009). Experiential learning is one of the supporting pillars of outdoor learning and is applied in nature-based methods such as gardening.

Kolb's experiential learning theory is one of the most common theoretical frameworks for adventure and outdoor education. According to Kolb 1984 "Learning is a process, in which knowledge is created through transformation of experience." Learning itself is seen as an active process with four phases connected with doing, sensing, observing, thinking, and planning. There are other models that explore the benefits and applications of experiential learning used especially in gardening. Christian Itin defines experiential education as a holistic philosophy, and his definition summarizes the way experiential learning is understood in this thesis project.

"Experiential education is a holistic philosophy where carefully chosen experiences supported by reflection, critical analysis, and synthesis, are structured to require learner to take initiative, make decisions, and be accountable of the results, through actively posing questions, investigating, experimenting, being curious, solving problems, assuming responsibility, being creative, constructing meaning and integrating previously developed knowledge." - Christian Itin 1999

Itin (1999) suggests that educators play several roles to aid the learning process in their students. While presenting experiences is important, they should also assist students in utilizing and reflecting on them. Moreover, they should create a secure and supportive learning environment, define objectives, and disseminate required information to their learners. The primary objective is to encourage reflection and facilitate learning while ensuring the physical and emotional safety of everyone involved. (Itin 1999.)

Even though the course aim was not purely educational, experiential learning principles were applied to the pilot course for participants to gain their hands on experience of ecological gardening, connection to nature and following the process development in the garden as well as in their own life. This was done through active learning, which is an application of experiential learning, and it promotes participation and interaction. (Wurdinger & Carlson 2019.) The style of learning that happens in school gardens, using direct contact with natural phenomena, is considered experiential, inquiry-based learning grounded in concrete experience (Corson, 2003; Kellert, 2002; Mabie & Baker, 1996; Rahm, 2002)

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Garden-based experiential learning activities are increasingly being used in schools to improve youth attitudes toward healthy foods and exercise, to help develop environmental awareness and enhance academic learning, and to promote personal and social development (Blair 2009). Experiential learning was applied to the gardening activities to follow a step-by-step approach and provide participants with hands on and felt experience of nature connection and teamwork.

3 METHODS

3.1 Data collection

Data collection was done through mixed methods. Before the course each participant received relevant participation info about the course and a preliminary questionnaire to asses' participants previous experience and expectations for the pilot course. The questionnaire included mostly restricted choice questions, and Likert Scale questions for collecting categorical variables and for the instructors to familiarize themselves with course participants. The second way of obtaining data throughout the pilot course was through personal field notes written down after each session by me. It is a good idea to try to write a summary of the events and any important statements. (Muswazi, Nhamo 2013.) The use of field notes is common in qualitative studies and have many functions as they help to create detailed and descriptive information about what was studied including the focus group. (Lauderdale, Philippi 2017.) The field notes included my instructor observations of participation in exercises that promoted nature connection, and teamwork in addition to any spontaneous feedback that arose through discussions. To increase validity of field notes, the field notes were written right after participants had left the premises of Soltorp.

Participant observation is a research method rooted in the ethnographic research tradition where the researcher not only observes the research subjects, but also actively engages in the activities of the subjects (Musante & DeWalt, 2010; Kawulich, 2005). They are both observing and participating. The main method to obtain qualitative data from the experiences of the participants was through semi-structured interviews after the course ended. These interviews used the photo-elicitation methodology as it can provide different types of information as photos evoke information, feelings, and memories. (Harper 2010, Bell, Berg, Morse 2019). Photo elicitation is a visual method which promotes participation as it aims to gain richer data in participant experiences. Carter and Ford (2013) mentioned the importance of respecting participants interpretations of the pictures and being mindful not to override them with their own analysis of pictures. According to Mauthner & Doucet (2003) critical reflection is an important aspect to consider while using qualitative research methods such as semi-structured interviews. It helps the researcher to assess their biases and general performance. Critical reflection provides information in the ways the researcher themselves influences the results or scope of the research. The course days were reflected upon together the commissioner after each session.

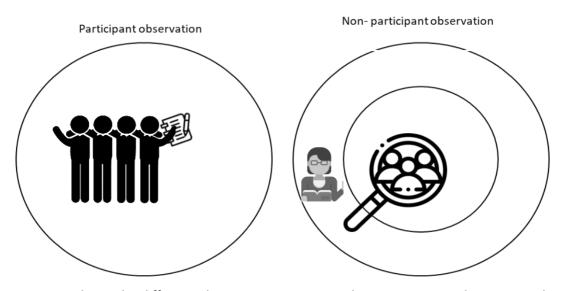


Figure 2.1 Shows the difference between participant and non-participant observation. The pilot course used participant observation as one of the methods to obtain richer qualitative data from participants.

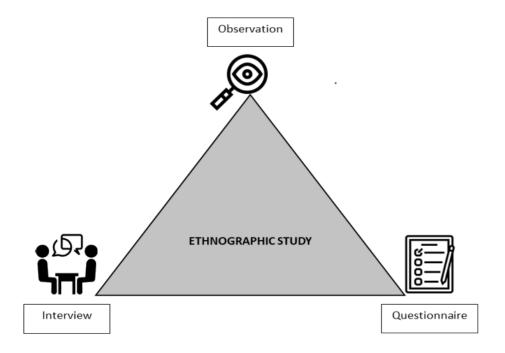


Figure 2.2 Shows the methodology used in the pilot course which are commonly used in ethnographic studies. These methods provide the researcher a better insight into participant experiences and perspectives.

3.2 Preliminary survey results

One way to improve customer satisfaction when developing services is by asking participants of their expectations of the upcoming service. The preliminary survey was sent to participants before the course and it included participants personal information such as age, any relating health issues that could affect participation and Likert scale questions. The intention of these questions was to see how important different aspects of the course are for each participant. The different course components in the questionnaire included learning new gardening skills, plant identification, doing activities together as well as questions focusing on interpersonal and intrapersonal skills. Interpersonal skills involve effective communication, active listening, empathy, teamwork, leadership, and conflict resolution, while intrapersonal skills refer to our ability to understand and manage ourselves, including self-awareness, emotional intelligence, self-motivation, self-regulation, and personal reflection. (Huerta, Carberry, Piper & McKenna 2021).

Both types of skills are essential for success in personal and professional life, contributing to positive interactions with others, managing emotions and thoughts, and personal growth and development. This chapter demonstrates only 6 out of the 19 categories included in preliminary questionnaire and the results show how important participants consider these categories before the course had begun. The six chosen categories are, different nature practises, working together, doing by hands, increasing self-awareness, identifying plants as well as having the same participants for the full duration of the course. In addition to these results below, all participants said that an encouraging atmosphere, the ability to work calmly and having fun were very important parts of the course content. These results provide the researcher knowledge of the participant expectations of the course and are demonstrated as graphs below.

The Likert type questions were measured based on a scale of importance from 1 to 5.

- 1. Very unimportant
- 2. Unimportant
- 3. Neutral
- 4. Important
- 5. Very Important

1. Different nature connection practices

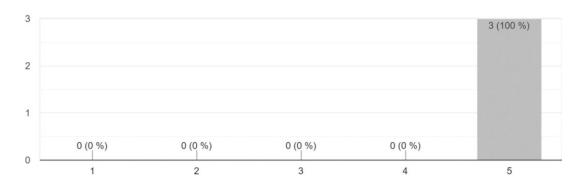


Figure 3.1 A graph showing how important participants considered the different nature connection practises, 3 out 3 replied 5. Very important.

2. Working together

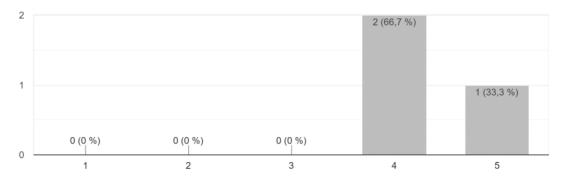


Figure 3.2 A graph showing how important participants considered working together, 2 out 3 replied 4- important whereas one participant considered it very important.

3. Doing by hands

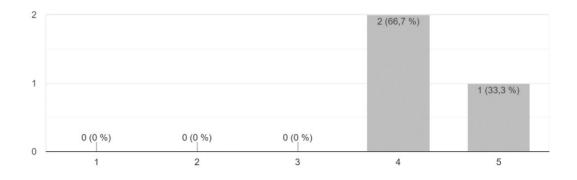


Figure 3.3 A graph showing how important participants considered doing by hands, 2 out 3 replied 4 - important whereas one participant considered it very important.

4. Increasing self-awareness

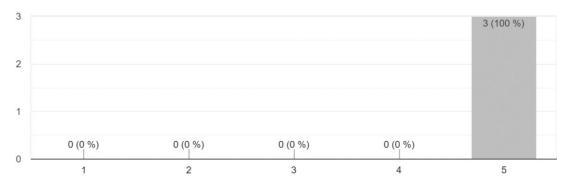


Figure 3.4 A graph showing how important participants considered increasing their self-awareness. All participants, 3 out 3 replied 5. – very important.

5. Identifying plants

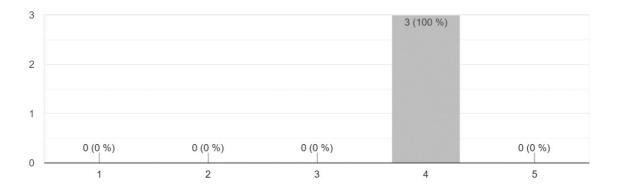
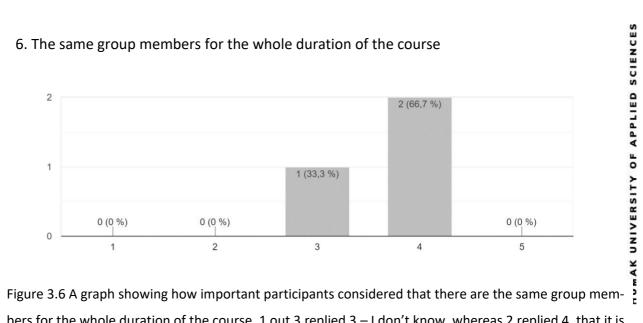


Figure 3.5 A graph showing how important participants considered identifying plants, all participants, 3 out 3 replied 4. - important.



bers for the whole duration of the course. 1 out 3 replied 3.—I don't know, whereas 2 replied 4. that it is important for them.

The full preliminary questionnaire and the results of the 19 Likert type questions can be found in Appendix 3.

The questionnaire data is limited due to the small sample size, and it is not possible to determine statistical significance based on the results. Fur further statistical analysis more responses would be required yet it is out the scope of the research for this thesis. Likert questions are essential in measuring participants opinion or attitudes towards specific topics. Generally, the data is analysed in two different measurement scales depending on the style of Likert questions used, Likert scale or -type. Likert Type data analysis would be appropriate for the preliminary questionnaire for the pilot course. Numbers used in the Likert- Type data show a "greater than" relationship, however the amount is not defined. Likert- Type data is used if the questions are unique and stand-alone rather than are used to create a generalization of a e.g., personality trait. (Boone H, Boone A 2012).

3.3 Use of PEI to evaluate participant experiences

Photo elicitation is a research method that involves using photographs to stimulate discussion and encourage interviewees to provide more detailed information about their experiences. This technique has been used in a variety of fields, including anthropology, sociology, and psychology. Photos provide a visual aid that can help the participants express their feelings and thoughts. They can be used with groups with language barriers as well to gain more in-depth replies to interview questions. Photo elicitation can encourage discussion on sensitive topics. (Berg 2015, Pitch, Armannsdottir, Dean 2015).

One of the goals of the pilot course is to facilitate a safe learning environment where participants can gain insights of themselves, others, and nature through their personal experiences in nature. Part of this process is to reflect upon the learning with the group, one-on-one with instructor, and through self-inquiry. This requires understanding of human nature, psychological safety, and valuing participants' feelings. Too often instructors focus on their own goals rather than turning their attention to the group. When the focus of the activity is on the lived/felt experience of the participants, it is good to be aware that it also means that there are as many realities as there are participants. Instead of finding one "correct" experience from all participants and validation for the instructors' own goals, photo elicitation gives participants the space

to describe the meaning of their experiences with more detail and symbolism. I've noticed that for many it can be difficult to accurately convey how they are feeling through words alone and I have paid attention to the increasing use of photo elicitation in the field of life coaching, group mentoring and wellness courses. The use of photo elicitation is common with individuals with communication challenges. Photocards offer a way to bridge this gap by providing a tangible image that can help to illustrate a particular emotion or experience. (Nisa 2017).

This methodology was chosen as an appropriate way to gain a better understanding of the participants' experiences, insights, feelings and to enhance the quality of data collected. The method complements the semi-structured interviews as it is a tool to bring the participants' experiences closer to the instructor. According to Harper, the photo elicitation method uses photographs as a means of stimulating discussion and eliciting rich, detailed information from research participants. (Harper 2002.) The photo cards used during the course and in the final interviews were designed by Nina Kellokoski with partly abstract and partly representational photographs with elements of nature, everyday objects, colors, and suggestive metaphors. The symbolic, associative images are intended for individual, pair, and group work for using pictures to guide one's self-awareness, emotions and seeing their own growth. (Mieli Ry 2020).

3.4 Actual gardening service program

Based on the theoretical framework and literature around nature connection, experiential learning, and service design, I created a gardening service. One of the goals for the new service was to increase communality by doing activities together outdoors as well as promoting a culture of sharing personal experiences in a group. As a nature enthusiast myself, I wished to provide a service that provides an opportunity for participants to gain their own hands-on experience of nature connection. One aspect of improving one's connection to nature is taking time to notice beautiful details in the surrounding environment. According to a study done in the benefits of nature found that taking time to be fully present with details in nature improves focus and induces a relaxed state. (Kaplan 1995.) is related to the physiology of seeing and helping the eyes work in ways that are natural for them. I am a firm believer in the beauty of simplicity and combining elements of adventure and outdoor education to any group-related program, like experiential learning, active reflection, and facilitation. All the exercises were designed with the intention of creating safety within the group, slowing down to notice and to provide opportunities for self and group reflection. The service program was a three day "course", and it

was aimed at adults interested in gardening and improving their nature connection. The reason for the pilot being a three-day course instead of a one-time event was the ability to follow a process, build trust in the group and offer more in-depth experience of nature connection that could hopefully be transferred into the personal life of each participant. The program was built with the intention of promoting agency, communality and experiential learning through Eco gardening and nature connection practices. The planning of the course included simple exercises of which some were done individually, some in pairs, and others with the whole group. Each course day ended with a reflection guided by questions from the instructor. Reflection sessions were planned to become gradually deeper. Gardening activities included planting a flower meadow in a creative way, planting trees, and creating an herb spiral done by principals of permaculture.

"Permaculture is consciously designed landscapes which mimic the patterns and relationships found in nature, while yielding an abundance of food, fiber, and energy for provision of local needs." – David Holmgren

A permaculture herb spiral has many microclimates and considers the effect of the sun in the different points of the compass, which creates hot and cooler environments in it. It is a vertical design that is drier at the top and moister in the bottom. An herb spiral location is built near the kitchen for easy access when cooking.

The actual gardening service program was designed to have two separate parts, the first spending time in the nearby forest connecting with nature from where the group then moved into the gardening activities done in the ecolodge yard. This transition was designed so that each participant could gain personal experiences of practicing presence and to use the same skills later while participating in the active gardening activities. The course was designed to offer opportunities for participants to gain their own insights from nature connection, experiential learning in gardening and working together in the group. The course content includes individual and group exercises, with the focus on doing activities mindfully. The role of the instructor was to facilitate a safe learning environment that promotes self-reflection, teamwork, and giving enough time to complete the activities. Participants were given creative freedom in gardening activities, yet the main guidelines were set by the instructors. Reflection was integrated into the activities because when individuals come together to reflect on a shared experience, they can gain multiple perspectives and insights that they may not have considered on their own. This can lead to a deeper understanding of the experience and the ability to learn from it in a more

comprehensive way. In addition, it has been shown in studies that participation in group reflection exercises improves the development of communication skills and fosters stronger relationships among students. (Ståhlberg 2019, 61; Haley 2019).

The full course program for the pilot and the activities as well as reflection sessions can be found in Appendix 1.

3.4 Experiment with pilot – implementation

After the content for the pilot course plan had been approved by the commissioner, the marketing of the service began. Marketing for the pilot course was done through social media, through a local Facebook group, Instagram and via word of mouth for those interested in gardening, strengthening nature connection, and doing outdoor activities together. Participants were informed that the pilot course is part of the thesis, and that it is hoped that participants can commit to all the course dates. The pilot course was called "Vahvista luontoyhteyttäsi ja läsnäolotaitoja" (Strengthen your connection to nature and your mindfulness skills) which included three 2.5h meetings and one extra day for the individual final interviews. The course was designed for a maximum of eight participants to meet the requirements of a small group and maintain physical and psychological safety. The course got four participants, of which one cancelled at the last minute. The nature connection practices, reflection sessions, and general group management were facilitated by Angelica Salahub. In addition, the commissioner Marika Björklund was part of the course instructing the gardening activities and participating in the activities done in the forest. The group in total included two instructors and three participants aged 26 to 48.

Each meeting started with a short description of the day and then quite quickly the group moved together to the nearby forest. Some of the time needed for travelling from place to place was used for nature connection practices. One of these was a silent sensory walk with the intention to attune with the surrounding nature and be mindful of each step. Participants shared a few insights after a practice like this, including comments that while focusing on each step, it was challenging to notice the surrounding nature and that the balance would be disrupted, and another mentioned how it felt like being a child and looking at the world with wonder. The practices were designed to gradually improve communality in groups by including individual practices, sharing circles and activities done in pairs. The first day included simple nature attunement practices and group formation tasks. One of the activities for group formation was a task

where everyone had to find a symbol from nature that symbolized them in the group. All the nature pieces were placed in a chosen circle creating a group artwork. A sharing circle followed the activity and everyone including the instructors shared which piece they chose and why. This conversation sparked many insights in the group and one participant gave feedback later that this practice gave an opportunity to share things that they probably would not have said otherwise. Supporting communality can be done by creating a safe space to express one's inner thoughts. Another participant commented that the mentioned practice was helpful also in that it gave the space for each participant to define themselves already at the very beginning of the course. This could mean that there is a smaller chance for trying to figure someone else out based on assumptions.

3.5 Semi-structured interviews with participants

The semi-structured interview is a common method used in data collection in qualitative research studies. It has gained popularity as the method is proven to be both flexible (Kallio, Pietilä, Johnson et al.2016) and adaptable to various research goals. (Galetta 2013.) Another advantage of the method is that it can be used in individual as well as group interviews. (DiCicco-Bloom & Crabtree 2016.) Semi-structured interviews use open-ended questions to gain data based on the experience of the participant. Each question chosen for semi-structured interviews should be connected to the research topic. (Galetta 2013). Semi-structured interviews allow in-depth exploration of different subjects and the meaning of these topics for participants.

Adams (2010, 18-20) emphasizes that empathy, listening skills, time management and organizational skills are the building blocks of good interviewing. There are some considerations when conducting semi-structured interviews that can be divided into categories, of preparation, during and after interviews. The considerations during the preparation and the interview situation are identified in Table 3 below.

Preparation	During the interview
- Location	- Attentive listening
- Privacy	- Managing silences
- Safety	- Being non-judgemental
- Technical	 Managing own emotional responses
	 Allowing the particpant to guide
	- Keeping affirmative responses, such as 'yes',
	'right' to a minimum.

- Staying focused
- Professionalism
 Maintaining confidentiality

Table 2. Considerations when conducting semi-structured interviews (Adams 2010) with relevance to the final interviews for the pilot course in Soltorp.

The carefully chosen interview questions intended to gain data of the participant experiences in relation to the course content, the learning occurring in the group, the effects of learning presence skills in nature, and how participants felt about themselves and the group. The questions included the awareness of the importance of individual emotions, as they offer another layer of experience and were a key component of the pilot course.

Below is the list of questions translated to English.

- 1. Choose a picture that represents how you experienced your connection to nature before the course and another picture that shows how it changed. (before/after)
- 2. Tell me about an experience that changed something for you during the course? Where did you notice you learned something?
- 3. Choose a picture that represents how it felt to share your experiences in the group. Discuss the photo.
- 4. How did you feel being in the group?
- 5. What was the most important insight for you from the course?
- 6. What kind of feelings did you feel during the course? Choose three that come to your mind / experienced the most.
- 7. What do you feel you received from the course?
- 8. Could you imagine using the exercises done in the pilot even after the course? (If yes, which ones?)

See Appendix 2 for final interview questions for the Soltorp pilot, translated and in original language used in the semi-structured interviews. All the interviews were conducted in Finnish as the course participants were all from Finland and it was their native language.

4 RESULTS AND ANALYSIS

The semi-structured interviews were conducted one-on-one with the researcher of which two out three interviews were conducted in nature whereas one interview was conducted online via a video call. Each interview was recorded and later all audio data was transcribed verbatim. Each participant received the same set of questions; however, some additional questions were added for more clarification with concrete examples if needed. The additional questions varied per interviewee. The photo elicitation method improved communication and gained a broader understanding of the participants' experiences. The same set of photo cards were used in the interviews and during reflection sessions in the course for familiarity and consistency. They were received positively by the group and all group members mentioned that the photos made it easier to participate during sharing circles. The participants were reminded that there are no wrong answers and that the aim of the interviews was to hear about their own experiences, feelings, and insights. The effects of nature connection practices and group gardening were studied through these semi-structured interviews. In addition, any relevant information from the feedback survey results is combined in the analysis, as the questionnaire provided scale questions and open questions like: What do you feel you gained from the course? Consequently, some participants added additional information that supported the results from the interviews.

The results and analysis are intertwined due to the nature of the developmental project and the qualitative data obtained through thematic analysis.

The analysis of the results is completed through a thematic analysis of the interviews held for each participant after the course. The results show the effects, benefits and challenges individuals can face while doing mindful activities together outdoors. The analysis intends to show the learning that can occur in addition to gaining concrete gardening skills and increased environmental awareness. These additional skills are connected to interpersonal, social, and metacognitive skills.

4.1 Angelica's model for creating wellbeing and nature connection services

One result of this thesis project is a model for developing wellbeing and nature connection services that others in the field can use in the future. The model includes three main phases namely before, during and after the implementation. It includes elements of service design, appropriate material banks, as well as soft skills needed in group-based services. The model is

created based on the theoretical frameworks used in this thesis project as well as from my personal experience gained through instructing wellbeing courses and events for different groups. The figure 3.1 below includes the general outline of the model, whereas the more detailed model in figure 3.2 includes practical examples, resources and actionable steps that an instructor can take into consideration when instructing such activities with groups.

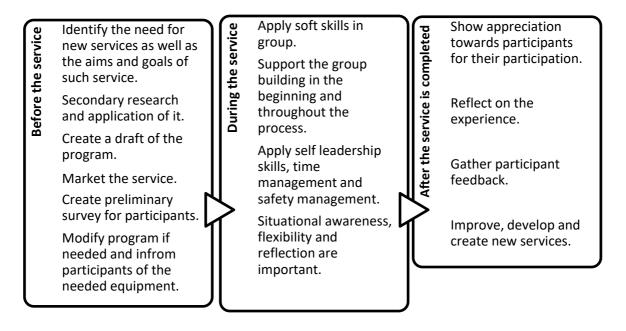


Figure 4.1 Shows the simplified version of Angelica's model for creating wellbeing services and nature connection services.

The more detailed model is visible below in figure 3.2 and the emphasis of soft skills, group management, social safety is described through practical examples in the during phase of the model. These are based on literature on participatory pedagogy, group dynamics, creating safe learning environments, agency, trauma informed approach and my own experiences from instructing different groups.

Tony Dunderfelt has written various works discussing the way communication affects individuals in groups and ways it can be improved. He is a psychologist, lecturer and has coached work communities for over 20 years. Two of his works namely Läsnäoleva kohtaaminen 2016 and Intuitio ja Tunneviestintä, ihmisten välinen näkymätön yhteys 2001, (free translation of the books: Encountering with presence & Intuition and emotional communication, the invisible connection between humans) have influenced the way I understand and apply emotional intelligence in a group setting. Some of these are included in the during phase of the model below.

Before the service

- 1.Discuss with commisioner about the needs for development for the business. Identify what is the aim and goals of the new service.
- 2.Do secondary research on the topic to find what kind of services and activities are available and how they have been received by participants.
- 3. In Finland Green Care & Metsämieli have various practises that include mindfulness and nature connection. Inspiration for activities can be taken from Haltia nature school programs that are available to the public. Nyyti Ry have materials on self compassion in Finnish and English that can be easily applied to outdoor activities.
- 4. Create a program that includes individual, pair and group activities to provide the experience of self awareness, team work and presence. Combine different senses. Consider the duration of the service and how it relates to the intended goals.
- 5. Create a preliminary survey for participants to asses the needs of the participants and improve customer satisfaction.
- 6. Modify program if needed, market the service, inform participants of the details and of the equipment needed.

- 1. Be well prepared, on time, preferably early and take time to be present with yourself. Especially when the nature of the topic is wellbeing, it is important as an instructor to find ways to be centred as it can positively affect the atmosphere.
- 2. Be available for the group, listen to the participants, turn the focus on to the group rather than executing a plan perfectly word by word. Authenticity invites others to be themselves.
- 3. Have situational awareness, be ready to adjust the program slightly if needed and think how are the goals being met through the new activities.
- 4. Give space for participants yet show interest in their life by asking clarifying questions or questions that imply care.
- 5. Know that each group member is a valuable part of the group and that each person brings something to the dynamic.
- 6. Observe and encourage participation by giving alternatives and promoting agency. Eg. Let participants to choose their level of sharing, seating places and remind particpants of voluntariness.
- 7. Know that trust is built step by step and that the whole duration of the service is an opportunity to strenghten it. Maintain safety and give enough time for activites.
- 8. Note observations down after each session and ask for feedback.

service is completed Φ

- 1. Remember that the participants themselves are an vital part of the service. Show appreciation and gratitude for their commitment, time and participation in the service.
 - 2. Reflect on the experience, ask yourself were the goals of the service met, what worked well and why, how could it be improved?
- 3. Gather feedback verbally as well as through a feedback survey that can be answered anonoumoysly. Include likert scale and open questions.
- 4. Analyse the feedback and note how participants felt, what they learned and gained and their ideas for improvement.
- 5. Transfer the learned skills to other situations and apply the wisdom that was gained through experience.
- 6. Create similar services that can be modified to different groups and according to the needs of the group.
- 7. Create new services that apply the metaphoric transfer of the previous experiences and feel inspiring to do.
- 8. To make sure that the new service is not completed in an routine like manner, be intentional of the reasons to create a new service.
- 9. Market and implement it.

After

Figure 4.2 Detailed Angelica's model for developing wellbeing and nature connection services in three different phases, the before, during and after based experience and theory.

4.2 Thematic analysis

Thematic analysis is an effective methodology for exploring the viewpoints of research participants, identifying similarities and differences, and uncovering unforeseen insights. (King 2004.) It is a relevant qualitative research method, and the goal is to identify patterns or themes in data. The process of thematic analysis involves several steps including familiarization with the data, identifying initial codes, and labelling the different aspects of the data that relate to the research question. From here the next step is to search for themes which involve grouping similar codes into themes based on their meaning and relevance to the study. After this it is time to review and refine the themes which involves revising the themes to ensure that they accurately reflect the data. The final task is to define and name the themes which is done through creating a descriptive label for each theme that captures its essence and meaning. One advantage of thematic analysis is that it can yield rich insights into the data and help researchers better understand the phenomena they are researching. (Nowell & Norris et al. 2017).

The thematic analysis was applied to the data gathered through one-on-one semi-structured interviews which was completed after the pilot course. All interviews were recorded and transcribed verbatim. After the familiarization of data, topics related to nature connection, self-awareness, working together, communication, gaining insights and learning moments were highlighted. After reviewing each interview transcript, the similarities were grouped together as well as the differences. The planned group size for the pilot was eight participants, however due to some cancellations, there were three participants in the pilot course. This simplified the thematic analysis process. Even though the group size remained small for the pilot, the thematic analysis shows valuable learning experiences for all participants, varying from social skills to personal growth and new gardening skills.

Adventure and outdoor education skills are broadly categorized in two categories, namely hard and soft skills. Soft skills include interpersonal skills such as communication, adapting leadership styles, facilitating, and using appropriate tools for effective reflection. (Sibthorp 2009). The importance of the application of soft skills was apparent throughout the course and can be seen in the experiences of the participants. The course combined experiential learning with soft skills application, and this is to show that learning can occur in many moments.

Soft skills provide the means for psychological safety, the possibility to dive deeper into reflections with the use of social skills that include, but are not limited to effective communication,

ability to listen, being emotionally honest, expressing emotions and working well in a team. The focus of such events are the participants themselves, the group, and the opportunity to give the space that supports experiential learning. In outdoor and adventure education one of the goals is the process of transferring learned skills to everyday life. (Ewert & Sibthorp 2014.) Many of the results from the course reflections, the final interview and questionnaire provided insight into the participants experiences relating to soft skills in relation to self and others.

The goal of the pilot service was to study the effects of nature connection practices and gardening together in the light of psychological wellbeing that can occur in group settings and with the connection to oneself. Therefore, the themes chosen for the report include participants' own insight into themselves, the group, and surrounding nature.

The themes are listed and described below as follows: participants define connection to nature safety and acceptance in group, the importance of gentleness, facing uncertainty and overcoming challenges, helping each other as a way of collaboration, the most important insight, and the transfer effect as well as an additional theme called emotions as messengers. The themes are shortly described in table 3 below.

The different themes and a short summary for each category

- 1. Participants define connection to nature.
 - A shift in attitude gained during course and the importance of presence for the experience of connection.
- 2. Safety and acceptance in group
 - Warm atmosphere conveyed through positive emotions, openness in reflection sessions and participants feeling comfortable to be authentically themselves.
- 3. The importance of gentleness
 - Gentleness was seen in three levels, being more compassionate to oneself, more encouraging to others and treating nature in a natural and gentle way.
- 4. Helping one another as a way of collaboration
 - The experience of being helped, the experience of helping others and gaining confidence through modelling other participants' behavior.
- 5. Facing uncertainty and overcoming challenges
 - Both physical and mental challenges regarding gardening activities and the relationship towards self.

- 6. Most important insight and the transfer effect
 - Internal shift in participant attitudes, thoughts, and feelings due to spending time in nature and gardening together.
- 7. Emotions as messengers
 - The different emotions throughout the course and what impacted them.

Table 3. A summary of the thematic analysis created from the semi-structured interviews.

4.3 Participants define connection to nature

The first question of the semi-structured interview related to the participants' own experiences of nature connection before the course and how it changed during the course. Participants were asked to choose two pictures from the Valovoimaamo therapeutic picture cards, one which demonstrated their nature connection before and the second for after the course.

All participants' responses showed a change in their own thoughts regarding nature connection. All participants shared the importance of nature in their life before the course, however the course brought more depth to their experiences. The course allowed participants to assess their own values and their attitudes towards nature. One participant realized that they had thought their connection to nature was strong and one of their values in life, however spending time in the forests and Eco Garden in Soltorp showed the participant how little time they had spent connecting with nature in their daily life during the summer. They could recall moments of the harmonious experience resulted by connecting to nature, however they noticed that they had not been in the state as often. This same participant mentioned the importance of putting effort in connecting with nature, that it requires spending time with it and by working with nature by hand (*like by eating blueberries, building an herb spiral*) to strengthen the feeling of connectedness to nature.

Another participant described the before and after process with a picture of a beautiful butterfly and a rock with a painted heart which symbolized that nature connection is about being present and just like the butterfly flies away, her presence and attention also comes and goes away. The change of the perception of nature connection changed during the course by experiencing mindful activities that are done in a calm manner. The painted heart on the rock symbolized slowing down and taking time to be with nature. This slowing down showed the importance of connecting with nature through the senses. Slowing down to notice, touch, and feel nature was an important theme of the course for the participants.

An interesting perspective of nature connection was defined by a participant who mentioned that previously nature connection was based on the things and experiences that can be gained from nature, e.g. a place to camp, a place to enjoy food with friends, an opportunity to swim or do other activities where presence and mindfulness came as a side product of these outdoor activities. The course broadened the participant experiences of nature connection so that it can be felt even just by going into the forest. An insight that she added was that sometimes the connection to nature can be stronger than the connection with other people and that nature welcomes its visitors with open arms.

All these changes in the attitudes toward nature showed the importance of personal experiences of the concrete ways nature connection can be promoted. After hearing the different perspectives of the experiences of nature connection before and after the course I wanted to better understand how the participants felt about the topic. I asked each participant to define what nature connection meant for them. The responses were eye-opening and gained qualitative data on the participants subjective experience. Below are a few translated quotes of what nature-connection means to participants. Some quotes are also in their original language to maintain the feeling that was transferred through the words.

"Nature connection means to be one with nature. To be outside barefoot, to understand the rain, sun, the wind, and the animals. To understand the resonance of nature and to be in a harmonious state, the way nature is. That's what nature connection means to me."

-Participant aged 26.

"No, kauneus tulee ensimmäisen mieleen. Ehkä sellainen uppoutuminen. Uppoutuminen on kyllä hyvä saada. Että mä en edes huomaa kun mä upouduin, että sitä ei tarvitse tehdä, vaan se tapahtuu. Luontoyhteys tuo sellaisia hetkiä, että se mun keskittyminen on niin siinä hetkessä. Niissä tiloissa keho laajenee ja voi käydä niin, ettei edes muista kehossa olevia kipuja.

"Well, the first things that come to my mind about nature-connection is beauty and experiencing a state of awe. And some kind of state of being in flow. Yes, being in flow is a good word. It's like I don't even realize I've submerged as it is something that just happens (in nature). Nature's connection brings moments where my concentration is fully in that moment and in those moments the body expands in a way that suddenly I don't remember any of the pains in my body.

-Participant aged 48.

"There is growth that happens when we plant seeds to the soil and modify the earth to create something we want. However, in nature, things just grow. Humans can

grow in nature as well. Nature gives the space to just be and the permission to explore it in similar ways to I did during childhood. And through that it is possible to experience playfulness and presence with nature. I think it is magical.

-Participant aged 36.

4.4 Safety and acceptance in group

Safety and acceptance are key components that show whether people feel comfortable being themselves. As mentioned in the chapter that explored the importance of belonging and vulnerability. Vulnerability, sharing our inner thoughts, feelings, and experiences whether they were positive or negative requires physical, social, and mental safety. Few ways safety was promoted during the pilot course was by voluntariness and by having a closed group to support group cohesion.

"Physical safety is one of the non-negotiable prerequisites for vulnerability. We can't allow ourselves to be vulnerable and open if we are not physically safe." - Brene Brown 2017, 71

One way trust was built between participants, towards the instructors, and towards the learning process was by facilitating reflective sessions where everyone had the space to share their experiences and emotions. The three-day course had the advantage of the opportunity to build trust gradually through individual, pair and group activities done outdoors. To build a cohesive group it essential to consider the atmosphere, communication and listening skills as well as taking into consideration the personal differences in group members.

Expressions of appreciation and compliments contribute to a strong social dimension in any group and serve as an important element in building a cohesive group. When group members feel valued for their effort, their loyalty and commitment to the group are strengthened. Communicating caring and empathy are other ways to support an acceptive atmosphere in a group. (Fujishin 2023, 159).

Safety and acceptance were seen in the openness of participants to share about their inner processes that occurred during the course. A few of the interview questions were specifically designed to gain more insight into the participant experience of the group. Participants showed interest in each other's stories as well asked clarifying questions. All participants had positive experiences with the group and this was visible through wording like, *I felt comfortable in being by self since the very beginning and that doesn't always happen, I chose to be the first one to share my experiences and it was interesting to see how the topic of discussion was built on my*

experience, I wasn't only interested in my personal journey during the course but also the journeys of others and how they experienced the different activities, I felt like I shared a lot about myself and I realized that slowly everyone can open up in their own pace.

When participants were asked how they felt in the group, replies showed positive feelings like sense of comfortability, sense of ease and naturalness, experience of warmth, being able to trust half strangers and feeling safe in that trust. These feelings show one aspect of the experiences relating to safety. Participants also mentioned that in a group setting and when doing activities together, the mind can create judgements of self or assumptions of others that can cause nervousness. The results showed that the safe and accepting atmosphere could be considered its own group process as there were many factors influencing the experience of safety for participants. Even though the reflective moments during the pilot course helped participants to feel safer in the group, each participant also mentioned how sharing can feel vulnerable, or even challenging.

When asked what were the factors that affected those positive emotions, the replies varied from the accepting atmosphere that was built by the instructors which wasn't based on accomplishment of tasks, having fun together, and doing the activities together and having moments to share and listen to others. Participants mentioned the importance of other participants showing interest in the things they shared about.

For some participants collaborating with others in such a setting was a new experience and two of the participants discussed the way giving space to the participants to share in the level that they felt comfortable made it easier to get to know one another. Giving space can promote agency and autonomy in individuals which is an important aspect of safety.

4.5 The importance of gentleness

The goal for instructing all activities was to provide an appropriate framework and clear instructions with the opportunity of voluntariness and possibly to adapt the activities to suit each participant the best. One of the main goals of the activities was to put mindfulness and presence skills into doing, rather than needing to do them as effectively or as quickly as possible. There is a time for efficiency in other situations. The pilot course encouraged presence skill by emphasizing the importance of taking time to notice and feel the surroundings. From the thematic analysis it became apparent that each participant benefited from this kind of approach. The

dictionaries define gentleness as "the quality of being kind, tender, or mild-mannered as well as softness of action or effect; lightness." (Oxford English Dictionary)

The importance of gentleness was visible in the participant attitudes towards themselves and their level of participation, especially in the more physical activities like shoveling. Two participants recognized that their go to approach for physical activity included demanding self-attitudes. These demanding self-attitudes could show up as doing more than needed, or a sense of urgency to complete activities in a certain time frame. The experiences where participants noticed their discomfort and chose to act differently, were moments where gentleness was put to practice. One of these participants realized that they did not need to try to please others and instead they could make their experience more comfortable by doing less of the physically demanding activity. Another participant shared similar experiences from the way they mended their personal garden and found it insightful to do the same kind of physical activities in a new way. They defined gentleness as allowing oneself to enjoy the process without the need to push over their own limits.

Attitudes of gentleness could be found in the participant wordings like, modifying nature naturally, not needing to please others, taking time to slow down, giving oneself the permission to just be without the need to be somewhere else. Gentleness towards self is the practice of choosing to be more compassionate and kinder to oneself. An attitude of gentleness is gained and cultivated through lived experience. Gentleness can be a way of practicing self-compassion. According to the Mindful Self Compassion workbook, embracing ourselves and our lives with self-compassion despite the inner or outer flaws, the strength to flourish can be found within ourselves. The benefits of self-compassion include a higher level of happiness, life satisfaction, better relationships, as well as reduced anxiety and depression. (Neff & Germer 2018).

I think gentleness is a significant result obtained from the participant responses as the way we see ourselves affects the way we experience others. Practicing gentleness should be seen as strength and as a demonstration of psychological safety in groups and individuals. This is supported by one participant's realization after the course that being gentle to themselves, and nature was a way to not feel insecure or overthink the way others perceive them. The insight was brought by the act of giving permission to themselves, permission to just be, permission to be quiet in a group and permission to act differently than the rest of the group. Like a moment where they were on an expedition with another group, and they decided to walk on the cliffs admiring the beauty instead of socializing with others. Nature-connection practices that were

done in the course encouraged participants to spend time in nature without the need for anything.

Giving permission to oneself and practicing gentleness went hand in hand. These participant experiences provide indirect positive feedback of the course and show that self-awareness was developed in participants. Gentleness can be shown in the way individuals choose to treat themselves and others, it can be seen in an attitude that is more encouraging and supportive even amid challenges.

4.6 Helping each other as a way of collaboration

The course included individual, pair and group work that applied elements of adventure and outdoor education, like experiential learning and learning in authentic environments. Even though activities included pair and group activities, their goal was not effectiveness by doing things quickly, but instead an opportunity to strengthen the sense of community in group and completing the tasks mindfully. The activity of the course was planned in such a way that the participant could get as much personal experience as possible in connection with nature and the group. In practice, working together was promoted by shared gardening tools, carrying them to the working area together, and the building of the herb spiral requiring the input of each participant.

One unexpected theme that showed up in the data was the impact helping one another had on the participants. The course members helped one another in various moments during the course and this was seen through things like offering assistance, holding gardening tools for one another, as well as asking if help was needed. Team work often requires participants to offer and receive help in one way or another and that is exactly one aspect of a cohesive group.

As a participant observer and course facilitator, I saw helping as a way of collaboration and acceptance. During the interviews two participants mentioned helping and the concomitant experienced internal thought processes. A similarity between the experiences of the participants was the challenges in receiving help. First these moments were reflected through the internal thought processes of someone asking for help and making self judgements e.g. whether they were offered help because they were too slow or insufficient. The results also showed that commonly the first reply to the question, "do you need any help", is to reply no thank you without

further thought. There were three ways the participants' own thoughts and feelings developed in this theme.

First, receiving help caused slight discomfort at first, but the experience changed after participants realized it was one way of working together and did not include any negative agendas. As the participants mentioned themselves this shows that it can be safe to help one another. Secondly, receiving help felt nice and it showed how fun doing things together can be and through this experience more courage was gained to offer help to others without the need to overthink it. Thirdly, receiving help from others felt nice and the positive experience of it turned the reflection inward to examine the reasons why they reply negatively to help offerings.

All the above examples show the increase in self- awareness which is the ability to know and understand the thoughts and emotions of oneself and the behavior resulted by those very thoughts and emotions. Understanding the thought processes that occur in different situations can help to change the way we act in the future during similar situations. According to studies, having a clear perception of us leads to increased creativity, stronger interpersonal connections, and better communication skills. (Eurich 2018.)

4.7 The most important insight and the transfer effect

David Kolb defined learning as the "process whereby knowledge is created through the transformation of experience." (Kolb 1984.) The transfer effect intends to demonstrate the transformation of experience in a concrete way.

The transfer effect is the process of applying learned skills into a new context. Generally, the transfer effect is categorized into three levels. The first of which is the specific transfer, which relates to learning psychomotor skills (Gass 1985.) and is commonly understood through the development of technical skills such as rope climbing techniques or ways to walk down steep terrain. Non-specific skills on the other hand are general skills that can be applied in similar situations, (Gass 1985) such as using Eco gardening tools in one's own garden after attending a course or using visual aids learned from the perspective of special needs in a group where there are some language barriers. The third level of transfer is metaphoric transfer, and it refers to the phenomenon where similar processes in one learning situation are applied to another different situation with similar elements. For metaphoric transfer to occur, understanding of different phenomena and their effects is needed. This includes understanding the reasons and

processes behind emotions, behaviors, and thoughts. (Gass 1991). According to Michael Gass, one way to promote the transfer effect is by providing the means for the participants to internalize their own learning. One effective way to achieve this is through reflection as it allows the participant to identify their personal learning which can lead to a greater application of their acquired knowledge in future situations.

The transfer effects for the participants in the pilot course were gained through their responses to the questions where participants were asked to describe a moment when they noticed a change occurred in how they experienced nature connection, their most important insight during the course and lastly what participants felt they gained from the course.

Metaphorical transfer was mainly seen as an internal shift towards oneself and others often occurring after spending time in nature. Themes such as patterns of comparison shifting into more acceptance, the ability to adjust one's attitudes to affect the outcome, the acknowledgement that even uncomfortable feelings are part of the process and applying a softer way of doing in other areas of one's own life.

4.8 Facing uncertainty and overcoming challenges

Facing uncertainty and overcoming challenges is one way to grow, gain better ways of doing things and improve decision making skills. This idea that challenges and facing uncertainty are learning opportunities is largely recognized in adventure and outdoor education literature. (Brown & Beames 2016.)

Challenges experienced by participants in the course ranged from challenges in perception of self, physical activity and facing uncertainty in the application of learned gardening skills. The process of building the permaculture herb spiral was considered to be a challenge by everyone in the group. The gardening activities were designed to gradually include more creativity and self-determination. Gardening activities are great for experiential learning as the step-by-step approach is highly applicable and gardening offers the possibility to see the development process. In the beginning of the course the gardening activities included more simple gardening tasks like shoveling, planting seeds, and moving plants to different locations. On the second day of the course, the process of building an herb spiral began. The task was divided into different work phases and the phase required the group to use rocks to build a spiral. Here, rocks are balanced on top of one another in a circle, soil is added to increase height and more rocks

are added to create a spiral. A few of the things that caused discomfort in participants was the inability to picture the final creation, uncertainty whether there was some very specific way for it to be done, lack of knowledge of how to do it, and the and the apprehension when facing a new situation. Even though participants had previous experience of gardening, this specific experience was a first for all of them. The process of overcoming the challenges related to building the herb spiral in the team was to start working and give it a try. The instructors remained at a distance and provided materials like rocks as they were transported from the yard from a small hill nearby. Participants reported that that the confidence was gained through doing, seeing the way the herb spiral started making sense, having fun with the group and by having the ability to take breaks from the task. After the herb spiral was finished each participant was in awe of their collaborative work and was surprised how it turned out. Participants mentioned that the process of building the herb spiral was quite rewarding after all. See Appendix 5 for a picture of the completed herb spiral. I think this example shows exactly how challenges can provide many learning opportunities and turn out to be empowering experiences in the end.

There are social challenges which include self-perception and collaborating with others. In social situations it is natural to evaluate one's role in the group and whether it is safe to be yourself. These thoughts were apparent in the participant experiences, because most participants mentioned this in some way or another through phrases like, I wonder how others perceive me, I wonder what someone thought about me offering them help, the activity where we shared about how we see ourselves helped me set my own role in the group and it was helpful. At the same time people want to feel accepted as they are rather than needing to change themselves to fit in the group. One of the solutions for these kinds of emotional thoughts was the realization that the daily roles of people disappear when they come together in nature. Participants reflected that one reason for being able to let go of judgements towards self and others was the way nature gives the space to just be. Overcoming the challenge of overthinking how one's own actions, like offering help, are received by someone else, was by giving the responsibility of how someone feels to the feeler. The participant pointed out the importance of the ability to trust that the team members can communicate their feelings to one another. Asking clarifying questions from one another can also support the building of trust within the group. The final key in feeling accepted in a group setting is by practicing gentleness to self and others. The theme of gentleness was explored in more detail in subchapter 5.3.

4.9 Emotions as messengers

The thesis writer asked participants questions relating to their emotions and moods during the course because this affects how we relate to the world around us. Emotions can tell researchers about things like social safety and group cohesion. We cannot study topics like well-being, emotional connection, nature connection and collaboration without the awareness of the importance of emotions. Emotions and feelings shape how we see ourselves and affect our experience of resilience, belonging and general outlook in life. I created an illustration that grouped the participant emotions and what influenced them based on the interview results. In questions that directly related to the participant emotions, I would ask clarifying questions to correctly demonstrate the relationship between actions, thoughts and emotions.

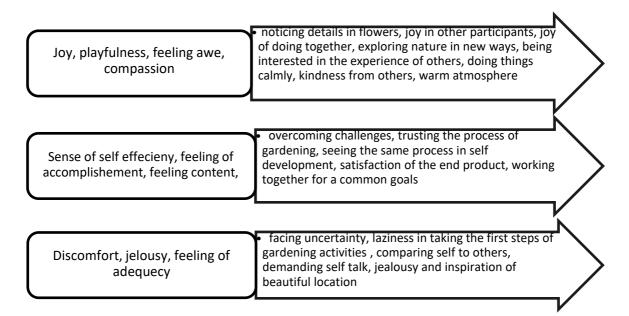


Figure 5. Shows different emotions and moods of participants and the contributing factors of the experiences as well as the messages of these emotions defined by participants themselves based on the thesis writer's own analysis.

5 OBSERVATIONS & FEEDBACK

5.1 Observation during the pilot

As a facilitator of the course and participant observer I acknowledge that my presence influenced the behavior of the participants. One advantage of creating field notes based on these observations is that it is possible to learn about the participant attitudes and beliefs. Donald Pennington mentioned in his work, The Social Psychology of Behavior in Small Groups, that essentially a participant observer has two roles: contributing and observing the group. (Pennington 2002.) To overcome observation bias, field notes were written on the same day, right after each session of the course. Observations included physical proximity of participants, level of participation, any spontaneous feedback after the activities and any insights from the unplanned reflections that occurred. Observations included notes on how members of the course felt during and after the activities.

It was interesting to observe the process of the group building throughout the course and see how the atmosphere created together invited deep discussions, humor, and helpfulness among the group members. During the first day the activities focused more on group familiarization and quite quickly participants felt more comfortable with one another. This was seen in the sharing circle in the beginning where participants were asked to tell a little about themselves and their reason for joining the course. Over half of the participants also talked about their personal challenges relating to the course and life. Openness can be an invitation for others to share more about themselves and I was surprised how quickly there was a warm and trusting atmosphere in the pilot course. When participants were asked in the final interview what they think impacted the warm atmosphere, participants mentioned the instructor's presence and the different activities that encouraged them to share their experiences with the group. Each session ended with a reflection of the day and debriefing for the next day. The reflection sessions included sharing circles and journalling practices.

Wonder, mindfulness, gratitude, and joy are some of the emotions that resulted from a meditation where participants could observe details in flowers through a loop. Choosing pairs in the group was easy and this showed a high level of comfortability in the group. Overall, based on the participant observations, the final interviews and the feedback survey, the pilot course was

a success as it provided various learning experiences, well-being effects and skills that participants could apply in the future. The results showed the benefits of such activity and gave Soltorp Ecolodge a new service that can be modified for different groups. The analysis of improved future service design as it gave more data on customer satisfaction. On the final day of the pilot course one participant shared to the group that group reflections were important, and in their words "they felt like a reward after the work." The experience of the group was considered warm by the participants themselves and the instructors.

During the final reflection of the pilot course, participants were asked to choose two pictures from the used picture cards that demonstrate how they felt in the beginning of the course and how they felt now on the last day of the course. Everyone including the instructors shared their thoughts, feelings and insights with the whole group and the responses gave valuable feedback on what was gained from the course. Here are some of the participants' feelings on the final day of the pilot course. Keep in mind that pictures can provide metaphorical explanations of an experience. Even though these descriptions do not use specific emotions per se, I find that these manage to convey the way the participants felt after the course:

"I moved from doing to a state of being, seeing the light, and the importance of being present, an expansive experience that was like opening new doors where the steps are more visible, from being stuck with familiar patterns and ways of doing to creativity and to a place where there are other people.

5.2 Feedback and considerations

The pilot course "Strengthen your connection to nature and your mindfulness skills" was well-received by participants based on the feedback after the course, including the interviews and questionnaire. However, there are few results that show where the activity and research can be developed. The scale level questions that are used in service design to see customer satisfaction were applied in the feedback questionnaire. The range was from 1-5, the meanings as follows: one being completely disagree, two somewhat disagree, three I cannot say/ I don't know, four agreeing to some extent and lastly five as completely agree. Of the eleven statements 7 showed high customer satisfaction as the results were on the 4-5 scales. The statements, I received enough help in the garden, the instructions for the activities were stated clearly, I felt part of the group had the most variety from participants. 33,3% of the participants chose option three I cannot say/ I don't know for those mentioned statements. It is unsure what factors affected

the results; however, they show communication can be improved by the instructors. Part of facilitating workshops that apply adventure and outdoor principles like experiential learning can create discomfort in participants who would want to know the specific way to do something. Feedback of this nature was mentioned by one of the participants and it is a good opportunity to assess the activity and whether there is a possibility that the instructions were not clear enough. This feedback was given in relation to building the permaculture herb spiral activity, where participants were given general outlines of the task, yet freedom with the finer details.

When participants were asked what their least favorite part of the course was, the replies included shoveling and sometimes feeling social nervousness in the group. On the other hand, when participants were asked what their favorite part of the course was, the replies included the nature activities, mindfulness skills, doing the activities together, learning together, the relaxed atmosphere, the gentle instructing, gaining concrete experiences through the practices and practicing presence through doing. The duration of the course was commented on during one of the semi-structured interviews and the participant said that if there would have been still one more opportunity to plant the meadow, it could have been a perfect opportunity to really apply the learned skills of doing things with more presence. Courses that are ongoing for a longer period promote the social relationships within the group members and this can have a positive effect on their well-being. (Puhakka 2023.)

According to the feedback survey, three out three participants would attend the course even if it had a fee, were likely to recommend the course to their friends, learned new ways to work in the garden and agreed/strongly agreed that they can apply what they learned during the course in their future. The learning, the skills and the benefits that participants reported on the feedback survey are described in Table 4 below.

Participants share about the knowledge and benefits gained from the course

- Permaculture
- Trusting others
- Getting quiet in the middle of everyday life
- Better management of own experiences in different situations
- Increased confidence in social situations
- Connection to nature was strengthened and the ability to notice details in nature

"I started to look at my work in my own garden with new eyes and put the course content into practice." — Participant 1

Table 4. The participants feedback results from questionnaire on what they gained and learned during and from the pilot course.

One thing to consider when designing outdoor activities is the way weather can affect the program. Before the course, participants gained general info on the course and gear needed, so the group was prepared, however during the final day, it began pouring heavily, while the group was building the herb spiral. For everyone to be warm and be able to participate for the end duration of the day, we, the instructors, decided to give the activity a break and move under a shelter. This moment was used as an opportunity to be present with natural phenomena and listen to the rain. One of the participants said they took it as a chance to feel the cleansing effects of rain, and another participant shared how they felt like running in the rain as they did when they were a child. Discussions moved towards nature and to which element each participant felt most connected. This moment was one clear demonstration of connecting with nature, by taking time to be fully present with it, without the need to change it. Instead, it was an opportunity to adapt and learn from the ways of nature. To summarize, outdoor activities should be easily modified if needed as there is always a possibility for unpredictability when learning in nature.

5.3 Validity of data

A small sample size can be justified according to Morse as the more usable data is collected from everyone, the fewer participants are needed. She invites researchers to consider parameters, such as quality of data, the nature of the topic and the study design. (Morse 2000). In addition, the quality of the data has a significant role in increasing the validity of the obtained data. The depth of the questions in qualitative interviews has been found to affect the richness of the obtained data and using open questions has been shown to produce richer data. (Ogden & Cornwell 2010.) However, this shows that even if one person can benefit from nature connectivity, it is something that could be emphasized and practiced more in different age groups. In addition, the participant experiences show how simple outdoor tools can improve self-awareness and mindfulness skills. Similar activities could be easily implemented into outdoor education.

6 CONCLUSION

6.1 Future development

The results of the pilot project in Soltorp demonstrated the benefits of learning together out-doors while doing mindful activities. Even though the group size was small, and generalization of data has its limitations, the results of the designed pilot service that applied experiential learning, mindful activities and reflection through ecological gardening demonstrated positive effects such as: increased self-awareness, connectedness to others and nature and experiences of flow, presence, and calm in participants. Although the sample size was small due to the scope and nature of this bachelor thesis, the research overall would be improved by holding several courses and collecting observational and survey data over time.

One participant from the course mentioned that it could be developed into a program offered to youth services where the price of the course would be manageable for people with a low income. This same participant mentioned that the course would be useful for others as the beautiful environment of Soltorp promotes mindfulness. Feedback was gathered after the course through a survey to examine the participants' experiences and their improvement suggestions. The feedback survey had questions that indicate customer satisfaction and applied service design principles. The participants could choose whether their responses remained anonymous or not. The survey included multiple choice, open space, and Likert scale questions. See Appendix 4 for the questions used in the feedback survey. To summarize the results from the feedback survey, firstly, all participants responded that they learned new ways of working in the garden. Secondly, participants were likely to recommend the course to their friends and lastly, they found that the nature connection practices done during the course strengthened their ability to be present.

Based on the feedback through the survey and the gathered data from the semi-structured interviews, it is visible that there is a need to connect more with nature and by making it easily accessible, more people could gain their own experiences that promote wellbeing. These types of courses could be designed for different age groups, for families and for wellbeing days for corporations. In the future, part of the development could include longer courses that follow the cycles of nature, e.g., Planting edible food that can be later used to create a community dinner. Longer interventions in nature have a greater impact in improving psychological and physical

well-being. (Puhakka 2023.) Courses such as the pilot offer participants the chance to gain their own hands-on experience of the importance of nature and through that possibly promote pro environmental behavior.

Theory and research suggest that feeling connected to someone or something motivates protective behavior. (Frantz & Mayer 2014.) When nature is protected, we are essentially protecting ourselves and the well-being of the whole planet. The suggestion is supported by the results of meta-analysis by Atik et al. that closeness and connection to nature had a positive and medium effect on eco-friendly behavior. (Atik et al. 2023.) It is challenging to protect something that one does not feel connected to, and the results of the disconnection to nature can result in the destruction of valuable nature areas, ecosystems and an ancient wisdom that has been on earth since the beginning of times.

Fortunately, conservation of nature, adventure and outdoor -, environmental education, eco gardening, mindfulness in nature, are ways that support individuals in learning in and from nature itself that promotes well-being of individuals, groups, and the planet.

6.2 Conclusion

The results of the semi-structured interviews for the pilot course participants showed that mindful activities done together in nature can improve intra- and interpersonal skills such as self-awareness, trust towards group members, attentive listening, and communication skills. The pilot course that was created for this thesis project drew inspiration and knowledge from service design, participatory pedagogy, importance of belonging, small group principles, group building and experiential learning. These elements were then combined with ecological gardening to create a course which aimed to improve the participants' connection to nature, themselves and social relations as these factors have a positive impact on our wellbeing. The results of the interviews and feedback questionnaire showed the course content succeeded to meet to goals of the thesis. The main output of the thesis project, the pilot course in Soltorp, was an increase in the experience of connection and the effects of the connection to others, self, and the surrounding environment. In addition, the results demonstrated that learning could occur in environments that are built on soft skills and concrete hands on doing.

According to the commissioner, the pilot course was a success and a valuable experience for the development of Soltorp Ecolodge as they intend to provide more nature-based services in the future. Marika, the owner of Soltorp, took part in the pilot course and was pleased with the entirety of it and our collaboration. All in all, the pilot course, "Strengthen your connection to nature and your mindfulness skills" was considered a teachable, eye-opening, and inspiring experience that will be implemented in their business. From the vantage point of view of the business, it is yet to see how similar courses will be received in Porvoo. Overall, the thesis project and the participant experiences are useful for the service design process for Soltorp company and in marketing initiatives in the future.

The aim of the thesis was to provide ways in which the connection between humans and nature can be restored as it is an essential component of holistic wellbeing. The course offered opportunities for participants to interact with one another, in hopes of promoting belonging and group cohesion. Elements of experiential learning were combined with gardening activities as well as hands on doing with the soil, rocks etc. to promote interaction and connection to the natural environment. The long-term transfer of the pilot course for the participants is based on whether participants choose to apply the gained knowledge and metacognitive skills in practice. This brings us to the importance of responsibility and the connection it has to environmental sustainability. We need tools that can help individuals, communities, and business to take more action and responsibility in caring for nature, our shared home. Some tools can be found in the pilot course program found in Appendix 1 and in the service model in figures 4.1 & 4.2. One way to do so is to start from the simple and mundane, to bring the focus to the beauty of nature, all the ways in which nature provides us and appreciating those things. To bring the world that is "out there somewhere", closer to the individuals' awareness in the here and the now. As social beings, humans need one another to thrive, however it is important for individuals to take agency in their own life to support the wellbeing of themselves, communities, and nature. The choices we make have an impact. Courses like the pilot can help participants along the way, yet no one can give things like belonging, nature connection, presence just by their word. Instead, providing individuals ways in which they can experience those for themselves has a more lasting impact. Therefore, services that promote participation, experiential learning, soft skills, connection to nature and group work are significant in paving the way for a more compassionate world. This thesis project can be used in the field of community education, outdoor education, and wellbeing services.

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APPENDIES

Appendix 1 Instructor lesson plan for Soltorp pilot course

Day 1 20.7.2023	Soltorp Ecolodge Porvoo
Day 2 27.7.2023	Humlebergintie 26
Day 3 28.7.2023	Trumlebelgiitte 20
At 17-19:30	06200 Porvoo

Target group: Adults interested in strengthening their nature connection and mindfulness skills through Eco gardening and nature connection practices in the forest.

General goals

- Improve nature connection, feeling of belonging to group and gardening skills in an eco-garden.
- Improving general wellbeing and communality through community gardening
- Increasing self-awareness and teamwork
- Provide experience of how nature can bring good feelings and help to think further about participants own life.
- Provide means to explore mindfulness and switching from the "doing" state to spending more time in the "being" mode.
- Strengthen experience of resilience through nontraditional ways
- Orientation to the group, nature, finding meaningful experiences in the mundane

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		DAY 1	Exercise 1
Name of the exercise	Everyone who switches places	Duration	15min
Goals of the exercise	San	s with movement	for the participants to know one another. t can help to relax the atmosphere.
Instructions for the exercise and teaching style (variation)		structor says diffe n places. The inst eir own statemen	
	2. Everyone that I 3. Everyone that I 4. Everyone that I 5. Everyone who I 6. Everyone with I	their hair tied swikes natural bodio ries something for have been ice switch ikes storms switch something blue so is part of "Connection	es of water -//-(lakes, seas, the ocean) or the first time switches places. imming switch places. ch places.

		DAY 1	Exercise 2
Name of the exercise	Silent walk, native american inspired	Duration	20min
Goals of the exercise	Awaken the senses the surrounding na Attune to the natur	ture	nment, focusing on different senses, becoming aware of
Instructions for the exercise and teaching style (variation)	senses open, they are used t	s heard. T	
	 Stepping forward fithe feet on the group Keeping in mind the surrounding nature Notice any details, 	rst with the und at the point. smells, so	nce, as quiet as you can. the toes touching the ground first then pressing the sole of ant is to walk as quietly as possible while observing the unds. I pants about their experience.

Y 1 exercise 3	D.	
	Angelica	Instructor
30m 15 min circle, instructions, finding nature symb 15min discussing findin	Group familiriazation "Our group"	Name of the exercise
Introduce new participants to one another through tools in nature. Group formation through nature connection practise		
- Sitting pa		Equipment
out groups in general. part of/ have been part of?	silence. After a moment the and on their own to find a sy. When each member has fou place their nature element / instructor. After placing the chose the specific symbol and the symbols create an artwork. After this group discusses about the symbols create and artwork. What kind of groups are you what are some characteristic.	Instructions for the exercise and eaching style (variation)
ol from nature and describes it to another. d encouraging.	 Each participant finds a sym Group atmosphere is safe ar 	Evaluation (how do I know that goals are reached)

DAY 1 GARDENING ACTIVITY

Instructor

Marika & Angelica

Name of the exercise	Planting a flower meadow	Duration	1h 15min	
Goals of the exercise	 Learn ways to plate Promote agency Combining learne Notice beautiful 	ant a flower in participar ed nature co plants in the n manner, w	nnection practises to a physical activity nearby nature. vithout focusing only effectiveness	
Equipment	- Wheelbarrow, sh	ovels, sand,	soil, ash, watering pot, water, meadow seeds	
Instructions for the exercise and teaching style (variation)	flower meadow. 2) Together with instructor plants that could be move encouraged to explore the street of the grass with its roots, fr 40 cm. One circle/particips of the yard, and dig it up with cm from the plant. The plate of the working area. We which it is placed in the digital to the working area.	or group obsed from a nee area and of meadow pla om a depth want at a time w plant: Each its roots. Tant with the ds and desirug-out, so the	erves the environment and looks at various meadow arby area to the future meadow. Participants are hoose flowers that they find beautiful. Int, participants create a circle using a shovel to remove of approx. 15 cm, in circles with a diameter of approx. 30 e. In participant finds a meadow plant that pleases them in the depth must be 15 – 20 cm, and the width at least 10 root ball is transported (if necessary with a wheelbarrow and plants are removed from this as much as possible, after at it settles on the same level as the grass. It is good to defit as much soil and sand mixture. The plant is watered	
	 well. 6) Each participant can continue at his own pace as many plantings as he sees fit. 7) The plants do not have to be arranged or chosen in that style, but the planting must be unique. We avoid slightly spreading weeds. 8) Instructions for sowing seeds: Participants dig a circle similar to in step 3. The excavated area is filled with a mixture of soil and sand (1:1) with the level of the soil, the soil is watered, and then the seeds of the meadow mixture are sprinkled on the surface of the soil. 			

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		DAY 2	Exercise 1
Name of the exercise	Flower meditation	Duration	15min
Goals of the exercise	loop Nature connection - To create a relax	on by increasing atmospheriential lear	ning, curiosity and sharing insights with others. unding nature.
Equipment			- Outdoor clothes - Magnifying loop - Sitting pad
Instructions for the exercise and teaching style (variation)	encouraged to explore the interesting or beautiful. The flower and to pay attention told participants it is okay examine their chosen flow down in a calm manner.	e plantation he task was on to the dif to pick the ver through articipants o	a garden and the activity is simple. Each participant is s and flowers in the garden and choose one that they find to spend a few minutes looking closer into the chosen ferent details, colours and textures in it. The commissioner chosen flower out of the garden. Each participant could a loop and share their findings with others. The activity is can show their findings to each other.

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	DAY 2 Exercise 2				
Instructor	Angelica				
Name of the exercise	Blind fold tree walk in pairs 45 min				
Goals of the exercise	 Introduce nature connection practice with pairs. Build trust in group and between participants. Promoting positive group experiences and getting to know one another better. Promote team effort and reflection skills. 				
Equipment	- Sitting pad - Blind folds				
Instructions for the exercise and teaching style (variation)	The group is divided into pairs (participants can choose their own pair, if needed instructor can choose pairs). The other pair has their eyes blind folded and the other one guides them to a chosen tree. It is important to guide the blindfolded participant carefully, making sure their path is safe, guiding so that no branch or big rock disturbs the blindfolded participant. When they reach the chosen tree, blindfolded participant can touch/ sense the tree using all senses except vision. After this the guide pair will guide blindfolded participant back to the heart area (chosen meeting spot with instructor) through a different route than what they used to get to the tree. Blindfolded participants can open their eyes and their task is to find the tree that they just visited. Switching pairs. After all members have completed the exercise, discuss in the group. How was it to walk blindfolded? What was your favourite part of the task?				
	What elements (individual or the group) helped you to succeed in the task?				

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Name of the exercise	Permaculture herb spiral	Duration	1h -2h		
Goals of the exercise	 Experiential learning in a group. Participants can use their own creativity in creating the herb spiral. Working style emphasizes group effort, hands on experience, and a learning process. This activity gives freedom for participants own decision making in the group. Instructors provide instructions and remind participants that it can end up just the way they create it. The exact measurements etc. are not emphasized. A learning process and instructors step a side to bring rocks to area and give space for participants to work independently. 				
Equipment	- many stones o - water - twigs to provi - organic materi - compost soil a - wood chip mu - mulch (e.g., st	f different sizes de airiness and useful ro ial (e.g., grass clippings, and/or burnt horse man	mowed hay, leaves. Sawdust, bark, etc.) ure (or chicken poo) ngs, wood chips)		
Instructions for the exercise and teaching style (variation)	2) The soil is loosened to 3) Place the cardboard 4) Spreading wood ash	by poking holes in the gr as the base of the bench on top of the cardboard	97.059 See1		
	add a few more layers of the bench gains more h 6) As the bottom of the 7) A 10-20 cm layer of h 8) A 10 cm layer of burn 9) A layer of soil, appro- use only compost soil, a	of stones, firmly placed of stones, firmly placed of steight. The height of the bench, twigs and/or roweaves and other organic ont cattle or horse manurex. 5-10 cm, is added on and mix it with chicken pure indicative, because the lowest point.	on top of each other. The stones are added as spiral can be about a meter. Itten branches are placed, about a 20 cm layer. It material is added on top of the twig layer. The is added on top of the organic matter. It top of the manure. If there is no manure, you can be bench is highest in the middle, and only		

DAY 3 Exercise 1					
Instructor	Angelica				
Name of the exercise	Finding the biggest tree in the area as a group and facing the future				
Goals of the exercise	Increase curiosity and environmental awareness. Practise tuning in with nature, noticing the surroundings. Improving group cohesion through doing things together Promoting team effort and decision making. Reflection moments when nature has given strength. Combining strength-based approach in nature connection activity.				
Instructions for the exercise and teaching style (variation)	 Start exploring the area as a group and try to find the biggest tree in the surrounding nature. Go around the tree and measure how many pairs of hands are needed to create a circle around the tree trunk. Discuss with the group whether nature has given participants strength and if yes, in what kind of situations? Before heading back, ask participants to think about one aspect of their life (close relationship, studies, work, general wellbeing) where they would want a change. Ask participants to find a tree near them that resonates to them and give time for participants to think about the question. This is only for participants and there is no need to share it with others. Ask participants to find a symbol from nature that represents the hoped change and take it with them. 				

DAY 3 Final exercise					
Instructor	Angelica				
Name of the exercise	Planting positive seeds for change while planting trees	Duration	45 mir		
Goals of the exercise	- Switch the attention to the future.				
Equipment	Shovel, cardboard, knife/scissors, wheelbarrow, water and watering can, soil, sand, ash, appl trees a couple of years old, woodchil mulc				
Instructions for the exercise and teaching style (variation)	 Participants are asked to find some object from nature that represents , keep in mi everyone's rights. From this exercise group moves to planting trees in the garden and instructor 				

Instructor	Angelica			
	Each course day was designed so that in the end there is time for reflection. These were done with the whole group present and Soltorp provided tee for participants. Some of the end reflections used picture cards in reflection session. Each participant had a chance to share their experiences. These were facilitated by Angelica.			
Name of the exercise	Daily end reflection	Duration	15mir	
Goals of the exercise	The state of the s			
Instructions for the exercise and teaching style (variation)	 Discuss with the group what was their favourite part of the day. What is your after all feeling of the entire day? Written task: "If nature was your friend, what kind of friend would they be to you?" The answers were discussed during the next time. Was there a moment today where you overcame yourself? What did you learn from working with the group? Choose a picture that represents how you felt in the beginning of the course and how is your experience now that it is the final day. Discuss why you chose the photos. 			

Appendix 2 Final interview questions Soltorp pilot course

Appendix 2. FINAL INTERVIEW

Soltorp EcoLodge & Angelica Salahub B

Humak Angelica Salahub

Thesis Project

Details:

Each participant was interviewed after the pilot course in Soltorp Ecolodge ended. These interviews are semi-structured interviews with the same questions for each participant. These interviews were done one-on one with Angelica with the use of therapeutic picture cards. One of the interviews was completed online. For this purpose, a padlet with the same picture cards was created. The main goal of the interview was to gain qualitative data of the participants inner experiences gained during the course as topics like nature connection and belonging can't be measured quantitatively as effectively. Interview duration per interviewee: 50min-1h.15min. The original language of the interviews: Finnish.

Link to picture cards

Set 1 www.padlet.com/angelicasalahub1/valokuvakortit-1-0-lraob3qby8bp46cq

Set 2 www.padlet.com/angelicasalahub1/valokuvakortit-1-1-ddg6vlmdcpr4cer9

www.mielenterveysseurat.fi/terveyttakulttuurista/tarjoamme/tarjoamme-valovoimaamon-valokuvaterapiakortit/

Questions translated to English.

- 1. Choose a picture that represents how you experienced your connection to nature before the course and another picture that shows how it changed. (before/after)
- 2. Tell me about an experience that changed something for you during the course? Where did you notice you learned something?
- 3. Choose a picture that represents how it felt to share your experiences in the group. Discuss the photo.
- 4. How did you feel being in the group?
- 5. What was the most important insight for you from the course?
- 6. What kind of feelings did you feel during the course? Choose three that come to your mind / experienced the most.
- 7. What do you feel you received from the course?
- 8. Could you imagine using the exercises done in the pilot even after the course? (If yes, which ones?)

Questions in original language

- 1. Valitse kuva, mikä kuvaa miten koit oman yhteytesi luontoon ja miten se muuttui kurssin aikana? (ennen & jälkeen, eli 2 kuvaa)
- 2. Kerro kokemuksesta, joka muutti sinulle jotain kurssin aikan. Hetki jolloin huomasit oppineesi jotain.
- 3. Valitse kuva, joka kuvastaa sinulle miltä tuntui omien kokemusten jakaminen?
- 4. Miten koit ryhmässä olemisen?
- 5. Mikä oli sinulle tärkein oivallus kurssin aikana?
- 6. Minkälaisia tunteita koit kurssin aikana? Valitse kolme kuvaa, jotka tulevat ekana mieleen/koit eniten.
- 7. Mitä koet, että sait kurssilta?
- 8. Voisitko kuvitella käyttäväsi kurssilla tehtyjä harjoituksia kurssin jälkeenkin. (Jos joo, niin mitä?)

Appendix 3 Preliminary questionnaire and Likert scale results

Appendix 3

Name:

Age:

Briefly tell us about yourself and why you wanted to join the Strengthen your nature connection and mindfulness skills course?

Do you have previous gardening experience? (Previous experience is not required for the course)

Answer options

Yes / no

Do you have any physical / mental challenges for hiking in natural terrain?

It can be, for example, some physical strain or some fear. I ask this because it is important to me that everyone in the group feels safe when we walk in nature and I want to take that into account.

Answer options

No / you may continue the questionnaire.

Yes / you can answer below.

What do you hope to gain from the course?

What are you most looking forward to from the course? Choose one.

Answer options: practical mindfulness exercises, practical ways to connect with nature, strengthening own nature connection, gardening, community-based activities outdoor, practices that promote self-awareness, to feel good, I felt the call to join the course, yet I cannot pin point exactly why.

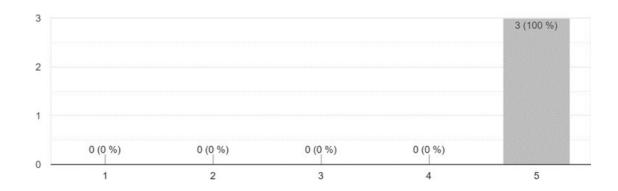
Is there anything else you would like me to know before the course starts?

The results of the Likert Type questions from the preliminary questionnaire

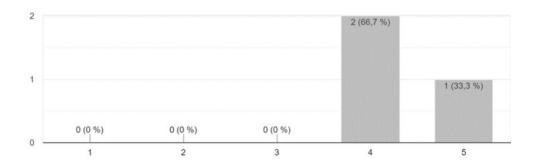
The aim of the Likert type questions were to see how important different aspects of the pilot course are for the participants. The Likert type questions were measured based on importance on a scale from 1 to 5.

- 1. Very unimportant
- 2. Unimportant
- 3. Neutral
- 4. Important
- 5. Very Important

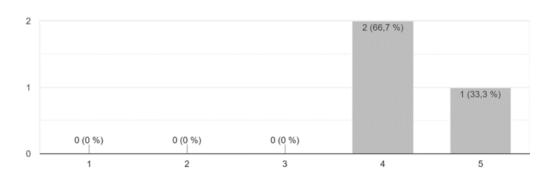
1. Different nature connection practices



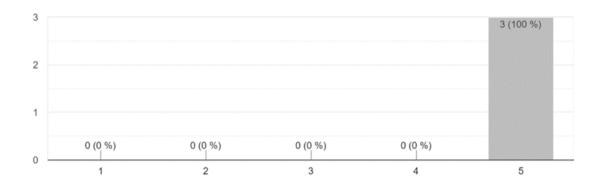
2. Working together



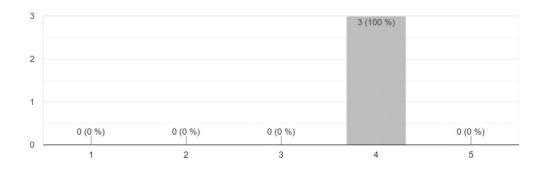
3. Doing by hands



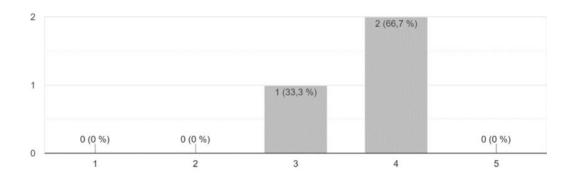
4. Increasing self-awareness



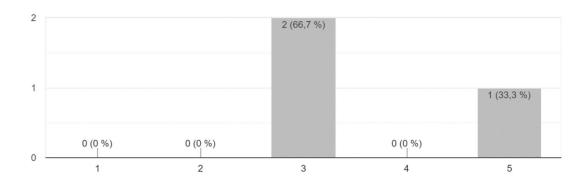
5. Identifying plants



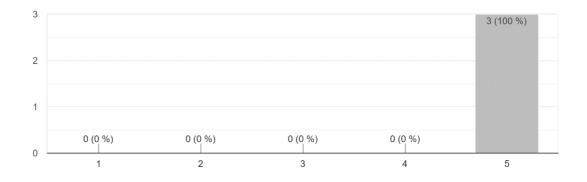
6. The same group members for the whole duration of the course



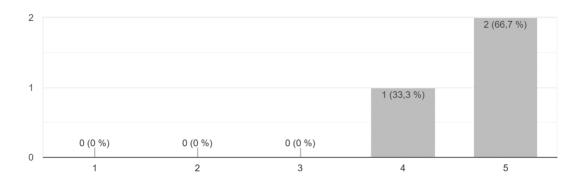
7. Gardening



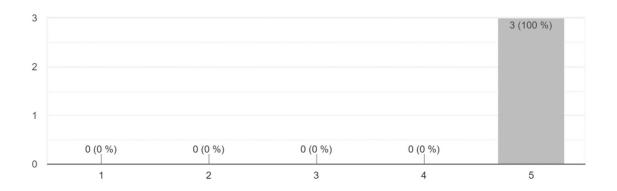
8. An encouraging atmosphere



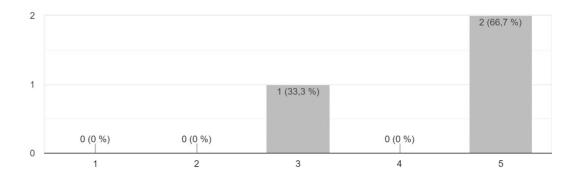
9. Improving sensitivity towards nature



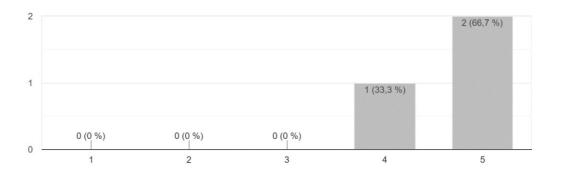
10. Working in a calm manner



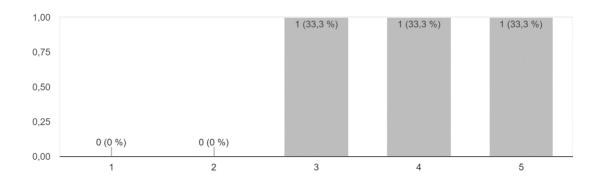
11. Getting to know new people



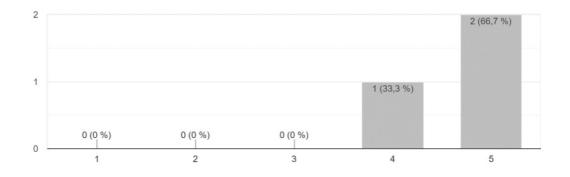
12. Learning outdoor and spending time in nature



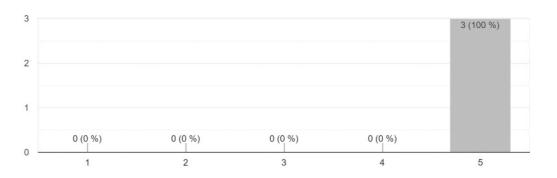
13. Learning new skills



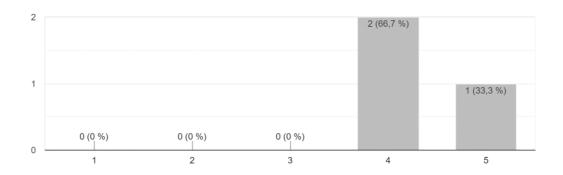
15. Practicing being present



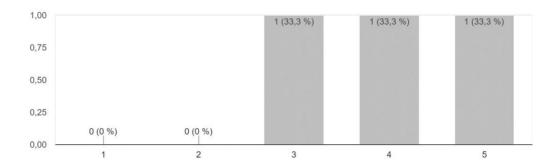
14. Having fun



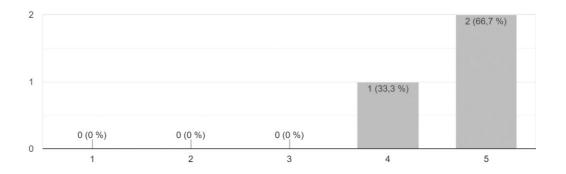
16. Exploring a new environment



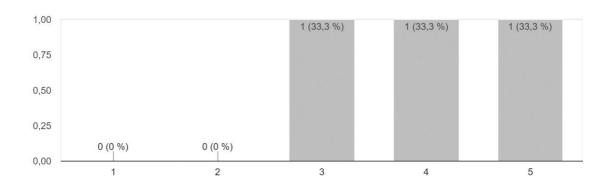
18. Leaving your comfort zone



17. Clear instructions



19. The possibility influence the activities in your own way



Appendix 4 Participant feedback survey questions

Appendix 4. Participant feedback survey questions translated and in original language.

Soltorp Ecolodge Oy & Angelica Salahub

Humak

Description of survey translated:

The pilot course Strengthen your connection with nature and your presence skills was a project related to Angelica's thesis. Marika and I wanted to create a course where we could bring out the healing power of nature, as well as connect with it through mindful activities. With simple tools and exercises, we wanted to give the participants experiences of connection with nature, themselves, and each other. Let us know how we did! <3

Questions translated to English.

Did you get the necessary information before the start of the course?

answer options:

a. yes b. no c. I would have liked more information.

How likely would you recommend the course to a friend?

On a scale of 1-5

1- very unlikely

5- very likely

What did you like most about the Strengthen your nature connection and presence skills course?

What did you like least about the course?

Did you learn something new from the course?

Answer options

a. yes b. no c. tell me more

Tell me more about what you learned. You can mention one thing (or more if you want)

Next, various statements that can be answered on a scale of 1-5

- 1. completely disagree
- 2. somewhat disagree
- 3. I can not say
- 4. agreeing to some extent
- 5. completely agree

You have received sufficient guidance in the garden.

You learned new ways to work in the garden.

The course met your expectations.

The nature connection exercises were useful.

The exercises in the course helped strengthen attendance.

You have felt like you belong to a group.

The service in Soltorp was friendly.

Instructions for garden work and nature connection exercises were clearly explained.

You can use what you learn from the course in the future.

Enough time was given for the exercises of the course.

The atmosphere was encouraging.

If the course had a fee, would you be willing to pay for it?

Answer options

a. yes b. maybe c. no

Could we have done something better? Did you miss something from the course?

Greetings to the instructors:

Your name (optional):

Description of feedback survey in original language (Finnish):

Pilottikurssi Vahvista luontoyhteyttäsi ja läsnäolotaitojasi oli Angelican opinäytetyöhön liittyvä projekti. Haluaisimme luoda kurssin, jossa voisimme tuoda esille luonnon eheyttävän voiman, sekä

yhdistää siihen läsnäolevaa tekemistä. Yksinkertaisin työkaluin ja harjoituksin halusimme antaa osallistujille kokemuksia yhteydestä luontoon, itseensä ja toisiinsa. Kerro meille miten onnistuimme! <3

Questions in Finnish:

Saitko tarvittavat tiedot ennen kurssin alkua?

vastaus vaihtoehdot:

a. kyllä b. en c. olisin kaivannut lisätietoja

Kuinka todennäköisesti suosittelisit kurssia ystävällesi?

Asteikolla 1-5

- 1- erittäin epätodennäköisesti
- 5- erittäin todennäköisesti

Mistä pidit eniten Vahvista luontoyhteyttäsi ja läsnäolotaitoja kurssilla?

Mistä pidit vähiten kurssilla?

Opitko kurssilta jotain uutta?

Vastaus vaihtoehdot

a. kyllä b. en c. kerro lisää

Kerro lisää mitä opit? Voit mainita yhden asian (tai halutessasi enemmän)

Seuraavana erilaisia väittämiä, johon voi vastata asteikolla 1-5

- 1. täysin eri mieltä
- 2. jokseenkin erimieltä
- 3. en osaa sanoa
- 4. jokseenkin samaa mieltä
- 5. täysin samaa mieltä

Olet saanut riittävästi ohjausta puutarhalla

Opit uusia tapoja työskennellä puutarhassa

Kurssi vastasi odotuksiasi

Luontoyhteysharjoitukset olivat hyödyllisiä

Kurssin harjoitukset auttoivat vahvistamaan läsnäoloa

Olet tuntenut kuuluvasi ryhmään

Palvelu Soltorpissa oli ystävällistä

Puutarhatöiden ja luontoyhteysharjoitusten ohjeet kerrottiin selkeästi

Voit hyödyntää kurssilta oppimaasi tulevaisuudessa

Kurssin harjoituksiin annettiin tarpeeksi aikaa

Ilmapiiri oli kannustava

Jos kurssi olisi maksullinen, olisitko valmis maksamaan siitä?

Vastausvaihtoehdot

a. kyllä b. ehkä c. en

Olisimmeko voineet tehdä jotain paremmin? Jäitkö kaipaamaan kurssilta jotain?

Terkkuja ohjaajille:

Nimesi (valinnainen)

Appendix 5 The permaculture herbspiral from the pilot course

