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ENGAGING CHILDREN WITH AUTISM SPECTRUM DISORDER IN ENVIRONMENTAL EDUCATION

Earthwalk Approach



ABSTRACT

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Engaging Children with Autism Spectrum Disorder in Environmental Education: Earthwalk Approach

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The purpose of the thesis was to provide environmental and earth education via earthwalk lessons to children with autism spectrum disorder (ASD). As an outcome, the lessons allowed us to design a leaflet about this topic for professionals. This was a project-based thesis with elements of product-based thesis as well.

The thesis project was conducted for the work-life partner: Environmental Education Youth Work Unit of Helsinki, which is part of Helsinki's Youth Services. The work-life partner expressed their interest in this subject as they organize environmental and adventure education services for youth and children. Background information, feedback, and suggestions were collected while meeting with the staff of the Environmental Education Youth Work Unit. Based on the information, which was received from them, the project's developmental needs could be identified, and they serve as the key focus point for writing the leaflet. The results of this thesis, according to feedback from the school and work-life partner, were very positive. Based on the teachers and students' comments and observations, we could determine which exercises were more favoured than others. This was very beneficial for us to know when creating the leaflet, so we were able to point out what exercises worked better than others.

In addition, the thesis concentrates on how environmental education can improve the social and physical wellbeing of a person with ASD and how they can benefit from environmental education, while enjoying different kind of exercises outdoors and what the instructors should take into consideration before planning specific lessons for groups with special abilities. The aim of the project was to plan and implement engaging earthwalk lessons to help the project's target group to cope with their autistic abilities.

Keywords: autism spectrum disorder, environmental education, environmental sensitivity, sensory awareness, earth education, earthwalks, participatory method

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1 INTRODUCTION

The plan for the project-based thesis came from the idea that we seek to combine our knowledge of environmental education and autism spectrum disorder (ASD). We found out that there were not many thesis projects where environmental education methods were used when guiding children and youth with ASD outdoors. Also, we wanted to investigate the benefits of environmental education, as well as how children with ASD should be guided while considering certain limitations like visual support and clear language. The topic engaging children with autism spectrum disorder in environmental education was chosen because sustainable lifestyle and environmental education is a very current topic, but also because it should be available for everyone.

The thesis was conducted for work-life partner: Environmental Education Youth Work Unit in Helsinki (Ympäristötoiminnan nuorisotyöyksikkö). The unit is a part of the Culture and Leisure Sector of the municipality of Helsinki. Their mission is to support youth work in environmental and nature education, provide young people with environmental, adventure and camp experiences; support young people who want to act for the environment; increase their environmental awareness; along with supporting youth-focused environmental and adventure education. In environmental education it is believed that only by developing a personal relationship with nature learning will flow and one can begin to nourish respect towards nature (Luontotoiminta, n.d.).

The Environmental Education Youth Work Unit offers environmental nature school programs at the Meriharju Nature House in Uutela, Vuosaari. The exercises used in this project and in the leaflet are adjusted earthwalk exercises that are loosely based on environmental education and earth education. All materials needed during the lessons in the project implementation were borrowed to us by the youth work unit.

The exercises used in the earthwalk lessons can be adjusted to suit and benefit all kind of groups, based on their necessities, interests and possible limitations.

1.1 Aims and Objectives

As described above, the focus of this thesis was to investigate the benefits and results of environmental education when guiding groups with autism spectrum disorder, and what should be considered before planning the lessons. Therefore, the aims of the thesis are as follows:

- to plan and implement earthwalk lessons for the project's target group and assist them to cope with their autistic abilities by using environmental, - and earth education methods
- to demonstrate what should be considered when planning to guide groups with autism spectrum disorder

The following objectives were set to reach our aims presented above:

- studying the best practices, key concepts and characteristics of autism spectrum disorder, environmental education and earth education
- based on this, produce a leaflet of exercises for professionals

To conclude, we are addressing the importance of effective planning and thus, the importance of knowing the target groups needs and possible challenges before starting to plan and implement. Furthermore, understanding our target groups needs made planning the content of exercises and guiding the lessons easier, resulting in successful implementation.

1.2 The stakeholders

The primary stakeholder of this project is the Environmental Education Youth Work Unit and the school, who took part in the project and enabled the participation of the class. Secondary stakeholders in this project are the 12 to 13-year-old students, who participated in the project and in our earthwalk lessons that we planned specifically for them.

2 KEY CONCEPTS

In this chapter, the key concepts of the project are defined and explained in detail. Autism spectrum disorder (ASD) was chosen because of the project's target group and both environmental and earth education as our approach. Moreover, in this chapter environmental sensitivity and sensory awareness are also described as senses are a big part of the thesis.

2.1. Typical characteristics of Autism Spectrum Disorder

“Autism is a disorder that is present from birth or very early in development that affects essential human behaviours such as social interaction, the ability of communicate own ideas and feelings, imagination and the establishment of relationships with others. It generally has life-long effects on how children learn how to be social beings, to take care of themselves and to participate in the community.” (Educational Interventions for Children with Autism Committee 2001, 11).

In his book Lathe (2006) describes autism as a neurodevelopmental disorder which hinders the ability to communicate, socialize, sense and experience the world. Furthermore, autism disorder is a complex lifelong condition and can be associated with general medical or genetic conditions. Some of the individuals with autism will be able to manage their everyday tasks, while others will need special support for the rest of their lives. Moreover, Lathe (2006, 35) explains why it is very difficult to adopt uniform diagnostic instruments and methods due to the wide differences in individuals with autism.

“People with autism have particular difficulty understanding abstract concepts. It is especially the concretization of the abstract concepts that are difficult for them. Autism is a highly abstract concept, as it summarizes many symptoms, which are unique in each person and which are the consequence of something invisible, a different cognitive style. Making autism concrete is very difficult. However, concrete information is precisely what people with autism need.” (Vermeulen & Junor 2013, 87).

According to Yapko (2003) autism spectrum consist of Autistic disorder (F84.0); Asperger syndrome (F84.5); Rett syndrome (F84.2); Other childhood disintegrative disorder (F84.8); Other pervasive developmental disorder (F84.3); Pervasive developmental disorder, unspecified (F84.9). It is common knowledge that people in the autism spectrum can also present other ancillary disorders. These include for example, Tourette syndrome, ADHD, epilepsy, depression, and eating disorders. All the characteristics of the spectrum are combined with neurobiological diversity of development plus the different types of characteristics, but the people's intelligence, social abilities and behaviours vary greatly from one individual to another. The special features that emerge in autistic spectrum are social interaction and communication abnormalities, as well as limited imaginative, plus stereotypical behaviour. (Yapko, 2003).

In addition, Yapko (2003, 44) refers as “co-existing” conditions to these features, abnormalities in sensory functions and motor skills, for people with autism spectrum disorder. The referred “co- existing” conditions are mental retardation, seizure disorder, attention deficit disorder (ADD, ADHD), obsessive-compulsive disorder (OCD), sensory integration disorder, plus epilepsy occur in the autistic spectrum of people in the majority population more often (Yapko 2003, 44 - 46). Neurological and psychiatric disorders are comorbid, that is, they occur often in people with autism. This means that a person can have two diagnoses at the same time.

According to Brownlee, Munro & Nolan (2009) most of children with autism spectrum are visual thinkers and they don't think in language, therefore it's very important to support spoken language with pictures, videos or signing language. Some autistic persons do understand language and therefore when guiding them it is possible to be more libertine in using the language. However even then, one must keep in mind to use short and clear sentences. Moreover, once a person with autism learns something, and they might learn it the wrong way, it can be very difficult to rectify the mistake. In addition, when approaching children with autism spectrum it is required to have a good structure of what it is envisioned to achieve, and to make sure all is planned for success before any new activities are started (Lovaas, 2002).

Today, with more stimuli, it is difficult to stop and calm down. We are overwhelmed by noise, visual distractions, and all kinds of extra stimuli that reduce our ability to sense the environment. (Blakesley & Payne, 2012). However, it was apparent that there is a lack of opportunities for children with autism to use their local natural environment; that more work is required to thoroughly evaluate the benefits of such experiences for these children; and that there is a need to develop a clearer understanding of how such visits should be managed for children with different level of autism. Reportedly the natural environment developed the participant's social skills and enhanced their overall wellbeing. The children were more relaxed, they felt comfortable with their surroundings and they had heightened sensory experiences; which were generally associated with the development of social skills. (Blakesley, Rickinson & Dillon, 2013).

2.2 Environmental Education

In the Handbook of Environmental Education (Cantell 2014, 19), the concept of environmental education was first defined by the IUCN Education and Communication Commission (CEC) in 1970 according to Sterling & Cooper. The book states the main objectives of environmental education adopted in 1977 and identified by UNESCO, which continue to point the way towards environmental education worldwide. The goals of environmental education are, first to foster clear awareness of, and concern about economic, social, political, and ecological interdependence in urban and rural areas. Secondly, to provide every person with opportunities to acquire the knowledge, values, attitudes, commitment, and skills needed to protect and improve the environment. Thirdly, to create new patterns of behaviour of individuals, groups, and society towards the environment. (Cantell, 2014).

Unlike traditional forms of education, Environmental Education is a lifelong learning process directed at creating responsible individuals who explore and identify environmental issues, engage in problem solving, and act effectively to improve the environment. The birth of environmental education dates to the late 1960s, although it was not until the 1970s and 1980s that there was more

talk about it. As it is a relatively young discipline in education and science, it has been considered whether it is a discipline of its own or whether it belongs to the field of environmental science. There is also discussion about the sustainable development. (Cantell 2014, 12).

In youth work, environmental education aims for more sustainable lifestyle and supporting young people's growth. The goal is a global nature respecting attitude, which evolves through personal and meaningful nature experiences, activities and awareness. In addition to a good relationship with nature, a young person needs information about the processes of nature and how we are connected to them. It is through Environmental Education that citizens, especially youth and children, can test various aspects of an issue to make informed, science-based, non-biased, and responsible decisions. Environmental sensitivity, its discovery and maintenance are the basis for environmental education activities. (Kukkamalli, n.d).

“A 30-days campaign run by the Wildlife Trusts of the University of Derby, revealed that subjective feelings of happiness and wellbeing were positively correlated with natural activities such as gardening, animal feeding, bird watching, and bushwalking. There was valuable evidence how proximity to the nature improved mood, enhanced respiratory functioning and impacted on the thought structure of the individuals.” (Chowdhury, 2019).

The tolerance of stimuli in children and adolescents of the autism spectrum is lower due to their heightened senses. It is because of this that children and youth who are sensory sensitive, benefit highly from the environment. A recent study in Kent by Autism and Nature, children with autism from special schools were taken on visits to the countryside, with positive outcomes reported for many children, even after just one or two visits. (Blakesley & Payne, 2012).

Environmental and nature education terms can sometimes be confusing since there is no unambiguous definition for it, but environmental education can be comprehended as an extensive entirety, which also consist of responsible consumption behaviour and guiding people towards a more sustainable lifestyle. (Tuomaala & Myyryläinen 2002, 10).

There is higher demand for wilderness adventures and environmental education. One reason to this could be that outdoor education offers many additional benefits to today's youth from promoting active learning, encouraging intellectual, physical and social development, it helps to build self-esteem and self-confidence and by experiencing the great outdoors, students will learn to respect, appreciate and enjoy what nature has to offer. (Seikkailukasvatus, n.d.).

2.3 Environmental Sensitivity and Sensory Awareness

In environmental education there is a lot of talk about senses and acknowledging sensitivity to nature and the environment. Researcher Joy Palmer has stated that numerous studies confirm the discovery that nature experiences during childhood are a big part of environmental responsibility. This refers to an individual's experiences and perceptions based on the senses. This creates the basis for an emotional relationship with the environment. Palmer emphasizes the importance of positive emotional experiences, since positive emotional relationship leads to nurturing and caring. That is, if the child or adolescent has positive experiences in nature, they will grow more easily to care about it. Values, beliefs, attitudes and interpretations are associated with this emotional relationship. (Käpylä & Wahlström, 1997).

Environmental sensitivity is the result of an individual's recognition of being part of nature and realizing that they are entirely dependent on it. Through knowledge and observation, a protective and nurturing attitude can be born where the individual has deep respect for the environment and they also feel compassion for the nature, and they want to act in an environmentally responsible manner. (Käpylä & Wahlström, 1997).

Inner experiences (thoughts, feelings, sensations, etc.) are among the most important features of the human condition from the beginning of time. Therefore, when talked about sensory sensitivity in general, we need to talk about descriptive experience sampling (DES). It was suggested that there are

five frequently occurring phenomena of inner experience: inner speaking, inner seeing, unsymbolized thinking, feelings, and sensory awareness. Sensory awareness is something we experience every day, yet it's something that is rarely recognized as a phenomenon of inner experience. (Hurlburt & Heavey, 2009).

2.4 Earth Education and Earthwalks

Earth Education has a strong emphasis on sensory perception as well. Earth education is a process which aims for people to live more harmoniously with the natural world by understanding how the ecosystem works, developing long-lasting love and respect for the Earth and reducing their own impact on its natural resources. It emphasises strongly “hands-on” learning and the purpose is to engage all our senses to develop a better understanding or picture of something. (Van Matre, 1990).

Earthwalks are a part of earth education which was developed by Steven Von Matre in 1990. The aim of earth education is result-oriented, whole-constructive, nature-based, lifestyle-centred, value-creating, mainly active participation that does not seek to be everything for everyone. Environmental education differs from earth education by focusing more on being complementary, class-oriented, theme, exercise, and concept focused which endorses a wide range of definitions and objectives. (Van Matre 1990, 251).

It combines sensory experiences with the knowledge of natural systems. The method outlines the ecosystem through the participant's own experiences and learning takes place through action and self-realization. In earth education, the senses and emotions play an important role, as they give time for emotions and exploration. The method emphasizes combining the information obtained through own observations into a functional entity. (Cantell 2014, 127).

In short, the existence of all organisms is based on the energy of the sun. The basic functions of our planet can be determined by four key factors: energy flow, substance circulation, interactions between organisms, and shape

changing. People live in the macro world (a world or reality on a larger scale), and we rarely look at the micro world (a small natural universe) under our feet, which, however, sustains our lives. Everything on earth is in some way connected to everything else and no life form could exist on its own. This is sometimes also referred to as the web of life. That is why energy flow, circulation, interaction and change are the four key factors, so we could better understand our place in space. (Van Matre, 1990).

There can be obstacles between nature and humans, and sensory training helps us deepen our connection with it and with the earth. The Earthwalk activities provide exciting and engaging ways to involve people of all ages in exploring the natural world. The activities are important to choose specifically for the target group and plan for the environment that the walk is set, depending on the experience you wish your group to have. (Hoessle & Van Matre, 1980).

3 PROJECT AND PRODUCT PROCESS

The key factors for successful project management are related with each person's skills, tools, application of knowledge and to techniques to project activities that will meet the project requirements (Basu 2013,17). In the following chapter we elaborate the need of our project-based thesis and product process in general.

3.1 Target group of the project

The target group of the project was a class of seven students with autism spectrum disorder between 12 to 13 years old. The class consist of the students, their teacher and the student's assistants.

The students all have different autistic characteristics, for example some of the students were very talkative, when others did not speak at all or preferred other ways of communication. To back up verbal communication, the students use pictures for visual support and sign language. All the students have some sort of sensory processing sensitivity, from not being able or not wanting to touch anyone or loud noises were not tolerated well.

Because sensory issues often accompany autism, we wanted to consider the autism's sensory sensitivity issues and the fact they can involve both hyper-sensitivities (over-responsiveness) and hypo-sensitivities (under-responsiveness) to a wide range of stimuli. These can involve sights, sounds, smells, tastes, touch, balance or body awareness. All things that can affect positively or negatively to the task at hand. (Autism Speaks, n.d).

3.2 Project Planning

As mentioned above, children with the autism spectrum disorder can benefit a lot from nature and environmental education. This has also given good results according to research (Theodorou, Pappa, Genitsaridi & Skanavis, 2018).

To know better what kind of exercises would be beneficial to use and what should be taken into consideration, additional time was reserved in order to meet the class and get to know the students. Time was also reserved for any questions and feedback that might rise from students after the project was explained to them. In addition, we were able to observe the class during their regular lesson and see how they work. Picture cards were used in order to support the communication between all parties.

During this meeting, time was booked to discuss with the teacher privately, in order to gather more detailed information about the students and their possible limitations, needs and preferences. This way preparations for planning a functional and achievable timetable could be drafted. Especially the time management was planned carefully based on the feedback and comments we received. Thus, potential challenges were more predictable, and we decided to use the forest near the school's premises, so participation for the class would be easy and effortless. In the planning phase of the project many things needed to be taken into consideration from lesson schedules and lunch hours to the pre-ordered taxi rides that the students might have after the lessons.

People with autism spectrum disorder are very poor with managing their own time. This is because people with autism often suffer from poor executive functioning. They have difficulty planning out their day or estimating how long a task will take. They're also very easily distracted. (Spectrum News, 2010). Therefore, it is very important for the teacher, assistant, parent or instructor to understand the concept of time and in this case, limit the amount of time that can be used with every exercise. However, in a way that the student has enough time to complete the exercise or activity.

Materials used during the implementation of the earthwalk lessons were mainly natural ingredients from nature, such as leaves, rocks and sticks. All other educational material was borrowed from the work-life partner, Environmental Education Youth Work Unit. The materials used in earthwalk lessons were loops, magnifying glasses, guksis, cloth, emotion cards, paper frames and different kind of picture cards. The purpose of the lessons was to encourage

and increase the student's confidence and their ability to cope with their autistic sensitivities and learn new things from nature by using their senses.

3.3 Project implementation

For this project, two earthwalk lessons outdoors were planned and were implemented in May 2019. The duration and timetable were planned in cooperation with the teacher. During the planning phase of the lessons, the teacher participated via e-mail and kept the legal guardians of the students informed by using Wilma. Wilma is the web interface for the school management program.

The duration of both lessons was approximately 2 hours because the focus of the target group might have suffered subsequently after this. Earthwalk lessons are typically 2 to 3 hours, so there is enough time to enjoy, learn and experience things in nature. The forest behind the school served as a good excursion ground for lessons. This was also selected, so the class could benefit the same surroundings later independently with the teacher and assistants. Also, the class would have a had hard time moving into another location.

Therefore, the forest was visited, and a safe but versatile route was planned for the implementation of the earthwalk lessons. The exercises used in the implementation were based loosely on earthwalk material, earth education and the basic goals set in environmental education. Five exercises were adjusted based on the comments received from the students in the initial meeting and concentration was focused on the content and functionality of the exercises. Moreover, the length, terrain and route of the lessons were planned carefully. The clarification of instructions and material choices were also discussed.

The exercises were: natures colours, loupes, frames, scent jars and relaxation. The purpose of "natures colours" is to get the participants to observe the world, its forms and tones around them. The "loupes" purpose is to detect for example, plant differences and to pay attention to things that are usually

overlooked. The purpose of the “frames” is to focus the attention in a specific area and share it with others, whereas the aim of the “scent jars” is to get the participants to sense and smell different kind of fragrances. It is said that through smell we connect with our own body and memories. In addition, relaxation or alternatively “silence place” (nature notch) is a good exercise to practice concentration and it allows participants to listen to the sounds of nature in peace. All the exercises used during implementation are described in detail in the appendix 1: leaflet of exercises for professionals (in Finnish).

The duration of the lessons gave time to implement about three exercises and collect feedback. Depending on the individual, some of the exercises took around 20 minutes, whereas some students were ready in 10 minutes. Therefore, it is very important to take everyone’s individual needs into account and prepare for different kind of situations. For emergencies, we had a detailed risk assessment and emergency supplies. This is detailed in the appendix 2: risk assessment of the lessons. When planning timetables, it was important to evaluate how long it would take us to walk from location to location. Below there is a more detailed timetable drafted for the lessons in tables one and two.

Table 1: Timetable for first lesson

11:00	Meet the class and prepare them for the day
11:15	Heading out together
11:30	Exercise I
11:45	Exercise II
12:10	Exercise III
12:20	Feedback
12:40	Ending

Table 2: Timetable for second lesson

11:00	Meet the class and prepare them for the day
11:15	Heading out together
11:30	Exercise I
12:00	Exercise II
12:20	Exercise III
12:40	Feedback
13:00	Ending

Depending on your target group, it is important to think the best way of collecting feedback. There are several things to consider. The timing of the feedback, amount, mode, audience, content, focus, comparison and function. A good way to collect feedback verbally from an individual with autism spectrum disorder is to use their name first. This helps students to know you are speaking to them. It is good to make sure that they are paying attention before giving instructions or asking questions. If they are in the middle of something, it might be possible to use that to engage them in a conversation. Speaking slowly helps participants to process better what you are saying and pause between words and phrases gives them time to process and to think of a response. It is also important not to ask many questions at the same time. When asking a question, the use of non-verbal communication, like using eye contact and gestures are recommended. Equally important is to be aware of the environment. Due to sensory sensitivity, background noise or a crowded place may be affecting how much an individual with ASD can process.

It is also recommendable to avoid using irony, sarcasm or rhetorical questions, idioms or exaggeration. Individuals with autism spectrum disorder take things literally and thus, it is very important to explain to them what you have said and what you really meant to say. Attempts to understand and communicate are important to reward. This increases the likelihood that they will try and do it again. By praising and commenting on what has been achieved, the person can make a connection between their own actions and your specific words. (National Autistic Society, n.d.).

In the end of the implemented earthwalk lessons verbal and visual feedback was collected by using emotion cards. Typically, a good way to gather participants to listen to instruction is to form a circle. In the circle everyone can share their experiences and the instructors can use this opportunity to give positive feedback for the participants. Giving and receiving feedback is vital for motivation and self-esteem.

As mentioned above, the legal guardians of the students were informed of our lessons before-hand, so all the participants had outdoor clothing. Pictures taken during implementation of the project, were used to support project

evaluation, writing of the thesis and the visual appearance of the leaflet. The teacher participated in the lessons together with three assistants, so we as instructors, could focus on guiding the target group.

3.4 Participatory Method

The project approach on participatory method (PEACE) was by involving from the beginning the participants in all activities, in this way allowing planning the content based on student strength. The participatory method was used for setting goals, gathering data and interpreting the results (Spiel, Malinverni, Good & Frauenberg, n.d.). From our point of view, we see participatory method more of a holistic approach towards awareness and understanding of environmental issues.

Referring to Participatory Evaluation with Autistic Children (PEACE) which was used as a method in our group sessions, it was developed by Katharina Spiel, Laura Malinverni, Judith Good and Christopher Frauenberger (2017). By using this method, they were able to include autistic children in dedicated evaluation phases through the co-definition of goals and methods, joint processes of data gathering and the interpretation of results. Participatory evaluation with autistic children requires a different approach to account for their uniquely situated way of perceiving and making sense of the world around them. However, the study showed more work is needed to establish PEACE as a full-fledged research tool. (Spiel, Malinverni, Good & Frauenberg, n.d.).

Regarding setting goals, gathering of data was done by using picture cards, which helped the students to express themselves easily. Since not all students were able to express themselves verbally before and during of project implementation, picture cards were used along with the participatory method. Their participation was done in group and individually. As a group they were involved in discussions related to their outdoor preferences; individually by performing their given tasks; together and individually in feedback and conclusions. Outdoors is always full of colours, sounds and textures which makes it a favourable place to learn in a group and, experience new things in

a fun way. Nature gives us the possibility to improvise and build spontaneously the interest of a person of autism spectrum.

According to Spiel, Malinverni, Good & Frauenberg (n.d.) participatory method (PEACE) includes a range of activities enabling participants to play an active and influential part which affects their lives. Which means that people are not just listened to, but also heard; and that their voices shape outcomes.

3.5 Product planning and Implementation

Product planning is a broad term that involves many different aspects of internally focused decisions, steps and tasks that are necessary for developing a successful product. Product plan typically answers to the question, “what do we build?”, when project plan answers the question, “how do we deliver a complete and delightful new customer experience?”. Projects also have a specific pre-agreed target group, as product have no closed lists of targets. (Cobby, 2019).

Information and feedback were consolidated from the work-life partner, which helped in developing the content of the leaflet. Also, during the product development phase all the exercises used during project implementation were written down as following: what is the aim of the exercise that the participants are supposed to be doing, what are the materials needed for this specific exercise and what are the things that the instructor should take into consideration. In the leaflet, all exercises are described in their own individual page with illustrative pictures. In addition, the leaflet has a preface for the reader, in which the aim and purpose of the leaflet is explained. The leaflet also contains one page about how to collect feedback. The last pages are our own general comments on what we noticed during the lessons and other recommendations that can be applied, if wanted. The best photographs taken during the implementation and in which the participants could not be identified were selected for illustrative purposes.

According to Windley, product management as a discipline is about what the product should be. Product managers are advocates for the customer's needs and desires. The responsibilities of project manager include a variety of things, in this case setting direction based on customer's needs, evaluating risks and working with graphic designers to create look and feel. A product manager is about what, while project managers are about how and when. Project managers work closely with product managers to ensure a successful completion of different phases in the product life cycle. (Windley, 2002).

During the process graphic designers and printing houses were contacted. It was decided to fold the leaflet in co-operation with a graphic designer and print copies of the thesis for the work-life partner, the class that participated in the project, and for the Alliance Youth Work Library. This required meetings with a graphic designer to ensure that the leaflet would visually represent our wishes.

4 ASSESSMENT OF THE PROJECT AND PRODUCT

In the following chapter the project and product are assessed, while the ethical principles and data protection are explained.

4.1 Ethics of Research

Ethics is about making the best possible decisions concerning people, resources and the environment. Ethical choices diminish risk, advance positive results, increase trust, determine long term success and build reputations. Leadership is dependent on ethical choices. (Project Management Institute, n.d.). Professional ethics guidelines for youth work aims to be empowering and supportive. In addition, youth work is operated considering sustainable development and youth workers encourage the participants to rethink their own choices and their impact on the environment. (Nuoli & Allianssi, n.d.).

About ethics, regardless of the thesis being research based or project based, when working with individuals with autism spectrum disorder there are no simple solutions that can be applied universally in order to resolve all ethical dilemmas. Therefore, while various issues may arise during of project implementation it is better to be focus on participants, and their need at hand; anticipating and preventing distressful moments; how to handle possible emotions. (Ethical Guidance for Research with People with Disabilities, 2009).

When working with individuals with autism, the emphasis should be upon the needs of children and their families, and upon the ways in which those needs may best be accomplished. Ethics should be talked about with the children's caregivers and why meeting children's needs are important. Codes of ethics are strengthening the motivation of childcare/adult care workers to carry out their work effectively and reinforce their professional values, such as respect, empathy and concern. (Cooper, Heron, Heward 2007, 660 - 662).

According to Lovaas (2002) individuals with autism as highly attuned and empathetic light beings; they are very sensitive, and they act like sponges,

taking everything in. In addition, by not being able to block most of the energies around them, they become overwhelmed by their surroundings. When they are becoming overwhelmed you will see them acting differently than non-autistic person. Therefore, because of their sensitivity they have difficulties to know who they are or how they can find their inner balance which all of us need to function in our daily lives. In order to give adequate support, it is important to analyse one's strength and (then) based on those strengths start adding more knowledge. Furthermore, we would like to emphasise the importance of being able to decompress and become one with the nature by letting them be barefoot and have lots of fun connecting with the nature.

4.2 Data protection

During the thesis no personal data was collected, except evaluation forms which were analysed and afterwards shredded. The participants cannot be recognized from the text or from the photographs, for which we had permission from the school. The school already had the permit from the student's legal guardians. A research permit was applied and granted by the municipality of Helsinki and Youth Services. The earthwalk lessons were implemented during school hours, so no additional permission forms were needed. An information letter was given to the school and for the students' legal guardians to inform them about the implemented lessons.

The new Data Protection Act supplementing the EU General Data Protection Regulation was approved by Parliament in November 2018 and entered into force on 1 January 2019. The Privacy Act applies alongside the Privacy Regulation. The Privacy Act clarifies the Privacy Regulation and provides some exceptions to it. The data protection regulation, the data protection law and the sector specific legislation form the whole set of data protection laws. The Publicity Act is also still in force (Finlex, 2018).

It is very important to think about research and project ethics, not just for professional references, but also because the work-life partner is represented through the project.

4.3 Evaluation of the Project

According to The ABC's of Evaluation there are two definitions of evaluation: 1) Evaluation is the systematic process of collecting and analysing data in order to determine whether and to what degree objectives have been or are being achieved. 2) Evaluation is the systematic process of collecting and analysing data in order to make a decision. (Boulmetis & Dutwin 2005, 4-5). Evaluation can also be determined more precisely as a process, which is guided by the reason for doing the evaluation in the first place.

Firstly, in this case, the effectiveness of the project and how did it benefit the target group was evaluated. Secondly, the feedback from the students and how they felt about the earthwalks and exercises in general was evaluated. The entire project was evaluated by the authors in the spring of 2020. The project was assessed using SWOT Analysis, a strategic planning technique used to help a person, business or organization to identify their strengths, weaknesses, opportunities and threats. The strengths of this project-based thesis were as follows: content was planned specifically for the target group after meeting with them and their teacher, the sustainable services and environmental education in general are on the rise and the concept of earthwalks is interesting. The opportunities were as follows: possibility to develop and adjust the content of the earthwalks to suit everyone and grow as a professional. The weaknesses of the project were as follows: limited timetable and constant changes that needed to be taken into consideration. The threats of the project were as follows: possible weather changes and cancellations, lack of target audience and having a class with too few assistants, which would affect for the outcome of the earth walk lessons. (MindTools. n.d.).

The implementation part of the project was evaluated after each lesson verbally and by using picture and emotion cards for visual support. In addition, a paper survey was given to the students after the lessons which was answered with the help of assistants at school. In this survey we asked what the best liked exercises were, and did they enjoy being outdoors. We kept the survey simple as this was recommended for us and because we gathered

feedback in multiple other ways as well. The survey can be seen in appendix 3: evaluation form of the lessons.

The teacher received a web survey, in which expectations, benefits and overall feedback was asked with open-ended questions. This allows the correspondent the chance to describe the experience by their own words. The advantages of open questions can be that they facilitate an unlimited number of possible answers, they allow respondents to answer in detail, unanticipated conclusions can be discovered, they inspire self-expression and reveal the respondent's logic, thinking process and frame of reference. The advantages of closed questions in turn can be that they are usually quicker and easier to answer, they are also easier to compare with other answers and people are more likely to answer sensitive topics. The disadvantages of open-ended questions can be that the respondent does not go into detail, the answers may be difficult to connect or analyse, people who are highly literate have an advantage and answering takes a lot of time. The disadvantages of closed ended questions in turn can evoke ideas that the respondent would not otherwise have, it can be confusing when many choices are offered to choose, the misinterpretation of a question can go unnoticed and it is very probable to give a wrong answer and it forces people to give simple responses to complex issues. (Copeland, 2017).

The teacher of the target group expected memorable active lessons in nature, where the students could use their senses and learn new things. According to the feedback, the teacher felt that the exercises were versatile and easy to adjust for everyone depending on their level of capability. The calm and coherent guidance during implementation was appreciated and the teacher felt that the best exercises for the group were the ones where students could explore and discover things by themselves and calm down. It was also pointed out that the timetable was seen functional and the pace during the lessons was not too fast, so the students had the chance to focus on the instructions, which was essential for a positive experience.

However, it was pointed out that some of the exercises were too abstract as they emphasized more freedom of creativity, therefore they were too difficult

for the target group and this resulted in lack of motivation and attentiveness because of the student's lack of self-guidance. According to the feedback, asking students to evaluate the lessons individually by using emotion and picture cards was a good choice because there was no social pressure to choose and the students could pick a card by their own pace. The teacher also expressed interest and enthusiasm for further use of all the implemented exercises and overall the feedback was very positive.

According to the feedback given by the students, all of them liked being outdoors and they would want to participate again. The best and most genuine comments came from the students instantly after the lessons or in the spur of moment when the exercises were implemented. The importance of emotion cards and other visual support for collecting feedback in the moment, proved that everyone's voice was heard. The best received exercises were the ones where the students could smell, see and touch things and experience them in a new way. In this figure it can be seen how the students' interest were divided.

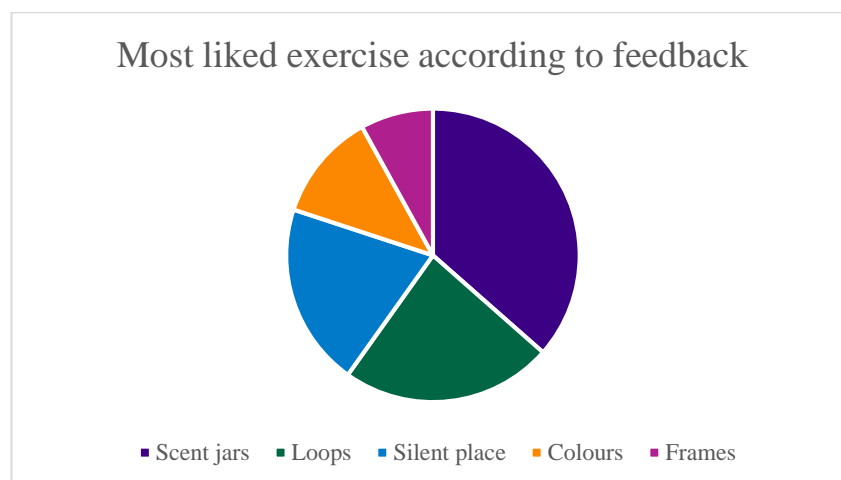


Figure 1: The best exercise according to feedback from seven students

All exercises from the earthwalk lessons are described in the appendix 1: the leaflet of exercises for professionals (Finnish). It was decided to produce the leaflet in Finnish because of the work-life partner. The appendix 2: risk assessment of the lessons, however, is in English.

As the project progressed it was rewarding to see how all students enjoyed being outdoors and how nature had a calming effect on them Even the most

hyperactive students were more motivated and focused outdoors and their concentration was improved. This could be seen during the lessons, when we did not have to repeat all the instructions every time or motivate them to proceed along with the exercise. Some of the students, who were non-verbal the first time, started to talk when we came to guide the second lesson and they wanted to share their experiences they had in nature. This to us was amazing because it seemed that they had been paying attention to the nature, which sometimes we forget, although it is all around us. The students also put a lot of trust in us. For them it was very natural to take our hand or hug us during and after the trips when we left the school. Overall this was a very positive experience for all parties.

Moreover, it is important to comprehend that children with autism will have a lot of questions, but most of the time they do not have the concentration to hear your answer. Take this into account and call them by their name so they know you are speaking to them directly. It is also important to be calm and clear with instructions and help them to listen to your response. Pause your sentences and speak slowly if that is needed. Repetitions are important. This does not mean that they are not interested in hearing your response, but individual with ASD are easily distracted. Depending on the target group, using pictures or sign language is recommended.

4.4 Evaluation of the product

As mentioned above, the outcome of the project was a leaflet of exercises which is meant to give a better understanding on how to guide individuals with autism spectrum. It describes the exercises and has guidelines for professionals. Primarily, engaging children with autism spectrum in environmental education was chosen because sustainable lifestyle and environmental education is a current topic. The need for a leaflet is based on the information received from the work-life partner. In addition, it will serve other professionals, who want to engage themselves in the topic.

The content of the leaflet was written based on the implemented lessons and the literature gathered from project's key concepts. While in the process of writing the leaflet, draft of the leaflet was shown to the work-life partner and based on the feedback that was received, it was edited. This took time, since it was clear to us that the leaflet would not be long, but still it would have to have enough information for professionals who are interested in knowing more about the topic and guiding earthwalk lessons outdoors. It was also important to make it visually clear for the reader. Therefore, the final visual design of the leaflet was designed by a graphic designer. The graphic designer took notes and adjusted the leaflet according to our wishes using InDesign. The product was evaluated before printing with the work-life partner, graphic designer and the authors to minimize mistakes.

Developing and implementing a good evaluation system will allow you to have a better understanding of your target audience, their needs and how to meet these needs. In addition, it helps designing more achievable objectives and therefore, it increases your productivity and effectiveness. (Meera, n.d.). Considering the positive feedback received from the work-life partner about how readable and visual the leaflet is, we can conclude that the output turned out to be thorough, flexible and practical.

4.5 Challenges

Every project face at one-point certain risks, therefore it is important to be realistic with the time frame and overall project planning. Most of the times risks can accumulate, and it is best to address them as they came up, otherwise risks can occur again. Due to different factors changes happen, and they are usually caused by errors in the planning phase. (Virtanen, 2000).

Important part of project evaluation is collecting feedback. However, this part of evaluation seemed to be a challenging bit while working with a group of students with autism spectrum disorder. Although different forms of assessment were used to evaluate time, practice and materials, the feedback was related to what students felt at the time. For example, students seemed to

be happy during the lessons, but after the lessons, when asked for feedback by selecting an emotion card, some students chose a sad face. When it was asked why they felt that way, they did not know why. Our research supports the explanation that it was too difficult from them to express their feelings, since they were already tired; or that they simply felt sad to end their time outdoors. Since all the students were showing excitement and interest during the lessons, we lean more towards the last explanation.

One of the concerns was having enough support during the lessons. Most classes with students with special abilities have assistants and our hope was that they, together with the teacher would attend the implemented earthwalk lessons. However, we did not have any troubles in this area, but it is something that is important to acknowledge. Having enough adults, in this case assistants attending the lessons, who will help to oversee the students and can help if someone needs extra help or is acting out. This is also a safety issue, if something would happen that needs attention, they can attend to that, while the instructor continues to guide the lessons and can focus on the program. Naturally all situations are different and sometimes even well-planned situations can change.

However, for a successful lesson outdoors, it is essential that the instructor can focus on guiding the lessons, their aim and objectives to the target group. This can only happen if there is enough help from the teacher and/or assistants. Otherwise the instructor's time goes on taking care of everyone instead of teaching them something new from the nature.

The lack of time for actual implementation was also a significant concern during the project. The process of finding the appropriate class for the implementation of the project, getting the research permit from the Youth Services and approval from the school and the students' legal guardians took its own time. Furthermore, the lessons were planned to implement in May of 2019, however one of the dates had to be changed due to illness. Fortunately, the teacher of the class could arrange another time for the second lesson which resulted in a successful experience for all.

Overall, all the unexpected changes were solvable thanks to flexible timetable and a supportive team. Collaborative writing of the thesis was sometimes challenging, and it might require more time. Regardless, good division of labour, constructive communication and feedback from all parties helped in writing an informative structure.

5 CONCLUSIONS

The aim of the thesis was to illustrate the benefits and results of environmental education when guiding groups with autism spectrum disorder, together with what should be taken into consideration before planning the lessons. We established this by organizing two earthwalk lessons using environmental education and participatory method for a group of children with autism spectrum disorder. Based on the earthwalk lessons and observations made during of the project implementation, a leaflet of exercises for professionals was written that serves as a practical tool for professionals from Environmental Education Unit, or to others who might be interested to conduct similar lessons.

The leaflet was produced as an answer to work-life partner's need for more information, and as a guidance for groups with autism spectrum disorder. By elaborating the earthwalk lessons, plus emphasizing the importance of planning beforehand, the leaflet meets the expectations expressed by our work-life partner Environmental Education Youth Work Unit. The leaflet was designed in co-operation with a graphic designer, which resulted in a useful informational package for youth workers, teachers or other professionals who want to implement educational outdoor lessons for groups with special abilities.

According to the feedback received from all stakeholders we can safely state that our aims and objectives were met. The work-life partner will benefit from the results, especially from the leaflet and the assessment of the project, which explains in detail what should be taken into consideration before and during the implementation. Moreover, it explains what ways were the most successful for collecting feedback from the target group, and the use of participatory method in the overall project and how it can be used with individuals with ASD.

From a professional point of view, we learned how to conduct a project-based research, which gave us the opportunity to develop our knowledge and skills through an engaging project. The benefits of collaboration and collaborative writing was shown by giving constructive feedback, supporting each other on things like time management and dividing workload. Moreover, we learned to

make surveys for a specific target group. In terms of professional growth, we both learned about guidance techniques, and how they can be adjusted and utilized to benefit the target audience. As the lessons were being guided, the different needs of the individuals and the importance of meeting the target group before implementing were highlighted. Due to this we developed our interpersonal skills and improved in interacting and listening to people. Furthermore, we had the opportunity to improve different practical skills, for example how to combine earthwalks with autism spectrum disorder, and to adapt fast to unexpected situations.

In 2018 the CDC determined that approximately 1 in 59 children is diagnosed with an autism spectrum disorder (ASD). According to them boys are four times more likely to be diagnosed with autism than girls. This also applies for the class that took part in the project. Over the next decade, an estimated 500,000 teens (50,000 each year) will enter adulthood and age out of school-based autism services. (Autism Speaks, 2018).

Overall, a broader understanding of the subject is needed. In our experience, it would be beneficial for more professionals to be able to deal with clients with autism spectrum disorder. In the name of equality, all the services offered to youth- and school groups and other children as well as adolescents should also be available for groups with autism spectrum disorder. This just needs to be better considered in the design and planning of the services. What we want to emphasize by this is that you do not have to be an environment educator to plan and implement successful lessons outdoors for groups with ASD. All that is needed is willingness to have enough resources and the leaflet of exercises for professionals will help anyone to get started.

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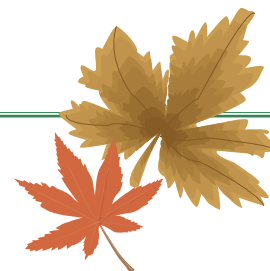
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Appendix 1. Leaflet of exercises for professionals. (Finnish)



OHJAAJAN OPAS



Elämyksellisiä harjoitteita luontoretkille

Annina Wallinsalo

Delia Manea

Diakonia ammattikorkeakoulu

SISÄLLYSLUETTELO

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ALKUSANAT OHJAAJALLE

Tämä lehtinen on tarkoitettu ammattilaiselle, kuten nuoriso-ohjaajalle, opettajalle tai alan opiskelijalle, joka haluaa perehtyä ympäristökasvatuksellisten harjoitteiden ohjaamiseen autismin kirjoon kuuluville asiakkaille. Lehtinen on osa opinnäytetyötä, jossa perehdytään luonnon ja ympäristökasvatuksen hyötyihin sekä siihen mitä hyötyä luonnossa oppimisesta on autismin kirjoon kuuluville henkilöille sekä mitä heitä ohjatesa ohjaajan tulisi ottaa huomioon.

Lehtiseen on koottu viisi sovellettua maakävelyharjoitetta (Earthwalks), joita voi vapaasti käyttää ja muokata kohderyhmän tarpeita ajatellen. Kohderyhmän tason huomioiden, noin kahden tunnin metsäretkellä ehtii tehdä noin 3–5 harjoitusta. Tavoitteena on elämyksellinen retki, jonka aikana osallistujat pääsevät käyttämään aistejaan ja tutkimaan luontoa uusin silmin erilaisilla ympäristökasvatuksellisilla menetelmillä. Näin myös osallistujien kunnioitus luontoa kohtaan kasvaa, ja menetelmät auttavat heitä rentoutumaan ja rauhoittumaan luonnossa.

Lehtisessä kuvataan harjoitteen tavoite, mitä harjoitetta ohjatesa tulisi ottaa huomioon ja mitä tarvikkeita harjoite mahdollisesti vaatii. Kuvataulujen rinnalla voi käyttää myös symbolikuvia. Nämä ovat tutumpia autismikirjon oppilaille. Elämyksellisen vuodenaikakävelyn tai retken voi suunnitella ja toteuttaa vuodenaikan ja kohderyhmän tarpeet ja toiveet huomioon ottaen. Harjoitteet perustuvat maakävelyyn, joka pohjautuu Steven Von Matren maakasvatukseen.

Maakävely on luonnon ihmeisiin ja monivivahteisuuksiin tutustuttava elämyksellinen seikkailu. Se on helppo ja virkistävä tapa tutustua luontoon. Maakävelyllä pääpaino on aistien herkistämisessä ja havaintoherkkyyden kasvattamisessa.

Maakävelyt ovat käytännönläheinen menetelmäopas omien luontoretkien toteuttamiseen. Se sisältää ohjeita eri vuodenaikoina toteutettavien maakävelyjen toteuttamiseen.

<https://www.prisma.fi/fi/prisma/maakavelyt-apuvaline-luonnon-aistilliseen-kohtaamiseen-muu-painettu-aineisto>

LUONNON VÄRIT

MITÄ TEET – OHJEISTUS

Tämän sävyihin ja väreihin perustuvan harjoituksen ideana on lämmitellä osallistujia ja saada heidät tutkimaan ja havainnoimaan ympärillä olevaa maailmaa, sen muotoja ja värejä.

Luonnosta löytyy monenlaisia erilaisia värejä: Esimerkiksi pensaat ovat vihreitä tai marjat ovat punaisia. Luonnossa on myös paljon erilaisia värisävyjä, ja väreillä on luonnossa myös tärkeä merkitys. Eläimillä on erilaisia suoja- ja varoitusväriä: esimerkiksi jäniksen valkoinen suojaturkki auttaa sitä piiloutumaan lumisessa ympäristössä ja ampiaisen keltamusta väritys varoittaa saalistajia siitä, että ampiaista ei kannata pyydystää.

Kerää osallistujat ympärillesi. Tehkää maahan risuista kehykset tai levitä aukealle paikalle kangas. Pyydä tämän jälkeen osallistujia tuomaan väri kerrallaan jokin luonnonmateriaali, esimerkiksi marja, oksa, käpy tai lehti kankaalle. Käykää läpi muutamia värejä, ja samalla voitte käydä keskustelua siitä, miten eri eläimet hyödyntävät kirkkaita tai haaleita värejä, tai millaisia värejä löytyy elottomasta luonnosta.

MITÄ TARVITSET

Harjoitteen voi ohjata ilman materiaaleja, mutta parhaiten toimii sisustukseen tarkoitettu väripaletti (maalivärikartta). Voit myös hyödyntää eri värisiä luonnon materiaaleja (kivi, oksa, marja) esimerkkeinä. Jos haluat, että

materiaaleja kerätään kankaan päälle, suosi yksiväristä kangasta, jotta kerätyt asiat erottuvat kankaalta.

MITÄ KANNATTAA OTTAA HUOMIOON

Rajaa alue, jossa on tarkoitus liikkua. Kerro miksi olette tekemässä tätä harjoitetta ja käy yksi väri kerrallaan läpi. Voit kertoa osallistujille, että etsitte sateenkaaria luonnosta ja tavoitteena on muodostaa väreistä lopuksi luonnon oma taideteos.

Harjoitetta ennen on myös käytävä läpi mitä luonnosta voi ottaa sitä vahingoittamatta. Esimerkiksi jos haluaa tuoda lehden vihreää, voi ottaa puusta yhden lehden varovasti, mutta ei koko oksaa.

Kyseinen harjoite saattaa olla liian abstrakti, ja vaatii ohjaajalta ja mahdollisilta avustajilta paljon kohderyhmän motivointia, jotta mielenkiinto harjoitteeseen ei lopahda. Asioiden etsiminen saattaa olla mielenkiintoista hetken, mutta pidemmän päälle tähän ei kannata käyttää kuin maksimissaan noin kymmenen minuuttia.



LUUPIT

MITÄ TEET – OHJEISTUS

Ympäristön tarkastelua luupin tai suurennuslasin läpi. Harjoitteen tavoitteena on havaita kasvien ja muiden tutkittavien asioiden eroavaisuuksia ja kiinnittää huomiota asioihin, joita ei tule huomattua. Ympäristön tutkiminen luupin tai suurennuslasin läpi saa osallistujat huomaamaan, kuinka monimuotoinen maailma onkaan, ja että jokaisella pienelläkin oliolla tai ominaisuudella on tärkeä tarkoituksensa tässä maailmassa. Näin voidaan myös opetella erilaisia kasvi- ja puulajeja.

Harjoitetta varten kannattaa kysyä esimerkiksi luokan opettajalta, mitä luokka on juuri nyt käsittelemässä ja hyödyntää tätä tietoa harjoitetta suunnitellessa. Esimerkiksi voidaan kaikki valita oma puu, jota tutkitaan, ja puun alta tai läheltä voidaan myös kerätä jokin puun osa, jota tutkitaan luupilla piirissä.

MITÄ TARVITSET

Saman verran luuppeja ja/tai suurennuslaseja kuin harjoitukseen on osallistujia.

MITÄ KANNATTAA OTTAA HUOMIOON

Valitse suunnittelemasi metsäreitien varrelta paikka, jossa on mahdollisimman paljon erilaisia havaittavaa ja rajaa alue, jolla osallistujat pääsevät vapaasti tutkimaan luontoa.

Tälle harjoitteelle kannattaa varata aikaa, sillä monipuolisuutensa vuoksi tämä on monien suosikkiharjoite. Tämä on hyvä harjoite myös



siksi, että jos luuppeja on matkassa liian vähän, voi tämän tehdä parityönä, ja pyytää osallistujia näyttämään vuorotellen toisilleen jotain ihmeellistä, kaunista tai erikoista.

Parasta olisi kuitenkin, että kaikille osallistujille olisi oma luuppi tai suurennuslasi, sillä kohderyhmää ajatellen parityön tekeminen saattaa olla vaikeaa, tai jopa mahdotonta. Kiinnitä huomiota harjoitteen aikana myös siihen, että jokainen osaa käyttää luoppia tai suurennuslasia oikein, sillä kokemuksemme mukaan tätä ei kovinkaan moni osannut. Tällöin harjoite menee hukkaan ja osallistujat eivät saa retkestä parasta mahdollista kokemusta.

Kerää luupit lopuksi pois jokaiselta osallistujalta. Tässä kannattaa olla tarkka, sillä ohjaamillamme retkillä jonkun taskuun tai kannon nokkaan meinasi aina jäädä vähintään yksi luuppi.



VALOKUVAKEHYKSET

MITÄ TEET – OHJEISTUS

Luontovalokuvan tavoitteena on keskittää huomio johonkin tiettyyn asiaan ja jakaa se muille. Kehysten läpi voi ihastella sen takana näkyvää luontoa. Tutkikaa, tarkastelkaa ja ihastelkaa rajattua kohtaa. Voitte laskea sävyjä, miettiä, millaisia muotoja näkyy, pohtia erilaisia mielle yhtymiä, keksiä ”taululle” nimi, päähällä, mitä ”taulu” voisi esittää tai mitä siinä tapahtuu.

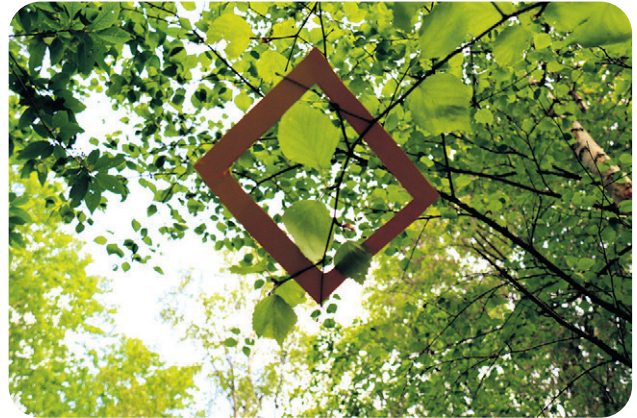
Kerro ryhmälle mitä olette tekemässä, ja jaa kehukset tämän jälkeen. Auta ryhmää pääsemään alkuun kyselemällä kysymyksiä, kuten ”mitä kaunista sinä haluaisit näyttää muille?”

MITÄ TARVITSET

Kartonkiset kehukset jokaiselle osallistujalle tai vaihtoehtoisesti jostain muusta luonnollisesta materiaalista tehdyt kehukset. Joidenkin ryhmien kanssa kehukset voi tehdä esimerkiksi risuista ja narusta itse, mutta tähän kuuluu ylimääräistä aikaa.

MITÄ KANNATTAA OTTAA HUOMIOON

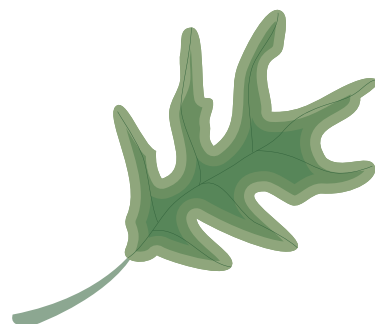
Tämä tehtävä voi olla kohderyhmälle liian vaikea sen abstraktin luonteen vuoksi. Jos ohjaat kohderyhmälle luontokehukset, keksi harjoitukseen mukaan jotain konkreettista, johon voitte koko ryhmänä keskittyä. Voitte esimerkiksi tehdä yhteiset kehukset luonnonmateriaaleja käyttäen, ja kuvata ryhmänne kehkyksiä



käyttäen. Ryhmän mukana kulkeva opettaja ja/tai avustajat voivat auttaa tässä, ja ottaa koko ryhmästä valokuvan kauniissa paikassa kehkyksiä hyödyntäen. Tästä jää ryhmälle mukava muisto tehdystä retkestä.

Kannattaa ottaa huomioon myös, että kartongista tehdyt kehukset menevät helposti rikki, sillä niitä voidaan käsitellä rajusti, tai ne voivat kastua huonoissa sääolosuhteissa, joten paras ta olisi laminoida kehukset ennen retkelle lähtöä.

Mieti myös vaihtoehtoisia tapoja, jos näyttää siltä, että harjoite on ryhmälle liian vaikea.



TUOKSUKUKSAT

MITÄ TEET – OHJEISTUS

Tuoksujen aistiminen. Tuoksuilla on yhteys muistiin ja tunteisiin ja tuttu tuoksu voi vihdä yhdessä nuuhkaisussa ajassa taaksepäin johonkin merkitykselliseen hetkeen tai paikkaan. Tuoksujen avulla olemme myös yhteydessä ulkomaailmaan ja oman kehomme tuntemuksiin.

Tarkoituksena on tehdä kuksaan oma tuoksu luonnonantimista, ja keksiä omalle tuoksulle nimi. Ohjeista osallistujia keräämään itselleen risu tai tikku maasta, jota he voivat käyttää sekoituslusikkana ja jaa jokaiselle oma kuksa, johon he voivat kerätä materiaalejaan.

Muista ohjeistaa heitä, että he eivät voi repiä kuksaan mitä tahansa sienet kannattaa jättää paikoilleen, jos niitä ei osaa tunnistaa). Tai kun he ottavat luonnosta jotain, esimerkiksi lehden, riittää, että he ottavat lehdestä pienen palasen sijaan, että he ottaisivat koko lehden.

Kierrä osallistujien luona katsomassa heidän tuotoksiaan, ja muistuta heitä, että heidän kannattaa sekoittaa kuksiensa sisältöä, koska muussattuna aines tuottaa enemmän tuoksua. Lopuksi ryhmä voi kerääntyä yhteen tuoksuttelemaan toistensa tuoksukuksia, ja kertoa oman tuoksunsa nimen. Voitte myös nostaa yhteisen maljan luonnolle ennen kuin osallistujat palauttavat luonnon materiaalit takaisin luontoon.

MITÄ TARVITSET

Pienen astian, esimerkiksi noin 5cl:n vetoisen

kuksan jokaiselle osallistujalle sekä luonnosta löytyvän pienen oksan. Osallistujat voivat etsiä sekoitustikun luonnosta itse. Kupeille kannattaa varata oma pussi, josta ne on helpompi jakaa osallistujille.

MITÄ KANNATTAA OTTAA HUOMIOON

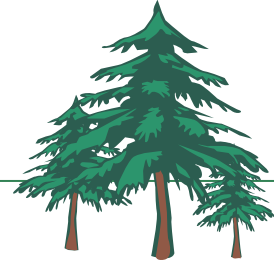
Kerro ensin rauhassa tehtävänanto ja rajaa alue, jolla on tarkoitus olla. Jaa vasta tämän jälkeen kuksat jokaiselle osallistujalle, kun kaikki ovat ensin rauhassa kuunnelleet ohjeet. Tämä on hurjan suosittu harjoite, ja tälle kannattaa varata reilusti aikaa, vähintään noin puoli tuntia.

On hyvä kerääntyä lopussa yhteen, esimerkiksi kehään, jotta kuksat (tai muut astiat) voidaan laittaa kiertämään ringissä.

Harjoitteen päätteeksi opasta osallistujia tyhjentämään kuksat tikun avulla maahan, ja palauttamaan kuksat takaisin. Autismin kirjon asiakkaita ohjattaessa kannattaa tarkentaa, että kuksassa olleet asiat voi kaataa lähimmän puun juurelle. Muussa tapauksessa voi olla, että he eivät tiedä mitä heidän tulee tehdä tai he lähtevät palauttamaan luonnon materiaaleja sinne mistä he alun perin ovat ne poimineet.



OMA LUONTOKOLO



MITÄ TEET – OHJEISTUS

Luontokolon tavoitteena on rauhoittuminen, joka voi toimia myös evästaukona, jos osallistujille haluaa jakaa jotain pientä esim. pähkinäkupin tai hedelmän syötäväksi.

Harjoitteen tarkoituksena on löytää oma hiljainen luontokolo, paikka, jossa osallistujat voivat istua tai maata hiljaa erillään muista kuunnellen luonnon ääniä. Harjoite on hyvä tehdä retken lopussa, jolloin se toimii myös yhteenvetona elämykselliselle retkelle ja valmistelee osallistujia palautteen antoon.

Ohjeistaessa on tärkeää korostaa hiljaisuutta, ja sitä että muista on tarkoitus olla erillään, mutta ei kuitenkaan liian kaukana. Paikka kannattaa tästä syystä valita huolella, esimerkiksi kallion päällä oleva alue, jos tämä on mahdollista.

MITÄ TARVITSET

Istuma-alustan jokaiselle osallistujalle, mahdollista syötävää ja kauniin levähdyspaikan.

MITÄ KANNATTAA OTTAA HUOMIOON

Rajaa alue ja opasta osallistujia, myös muita aikuisia, kuten opettajaa ja avustajia, että harjoitteen tarkoituksena on olla hiljaa, omassa rauhassa ja kuunnella luonnon ääniä.

Tämä on todella hyvä harjoite autismin kirjjon asiakkaille, mutta vaatii selkeitä ohjeita, ja

mukana olevien opettajien ja avustajien sitouttamista onnistuakseen. Osallistujille voi sanoa, että he voivat sulkea silmänsä, jos tämä helpottaa keskittymään hetkeen.

Mikäli mahdollista, valitse näköalapaikka, jossa osallistujat voivat ihastella horisonttia. Harjoitteeseen voidaan käyttää 10-30 minuuttia kohderyhmästä riippuen. Ennakkoon on vaikea tietää miten kauan luontokolossa jaksetaan olla. Samalla tämä on hyvä kärsivällisyys-harjoitus.

Jos söitte eväitä, muistakaa roskien kerääminen ja lajittelu lopuksi, esimerkiksi koulun jätekatoksessa. Mikäli tarjoat pientä evästä, ota huomioon kestävä kehitys, ja kysy ennen retkeä osallistujien allergiat.

Harjoitteen lopuksi voit kysyä osallistujilta mitä he ovat kuulleet tai miltä harjoite heistä tuntui, ja kerätä istuma-alustat takaisin. Tämän harjoitteen jälkeen on hyvä kerääntyä piiriin ja aloittaa palautteen kerääminen.



PALAUTE

MITÄ TEET – OHJEISTUS

Osallistujilta on todella tärkeää kerätä palautetta tehdystä retkestä. Sitä on parasta kerätä muutamalla eri tavalla, jotta jokainen osallistuja pystyy varmasti osallistumaan ja saa äänensä kuuluviin. Suosittelemme kysymään verbaalista ja kuvallista palautetta osallistujilta retken päätteeksi, ennen koululle palaamista ja kotiin lähtöä.

Mieti yksinkertainen tapa kerätä palautetta, esimerkiksi ringissä, jossa jokainen voi vuorollaan kertoa parilla sanalla mikä oli päivässä parasta, mitä olisi toivonut lisää tai osallistuisiko hän uudestaan vastaavalle retkelle. Lisäksi on hyvä kerätä henkilökohtaista palautetta kuvien avulla, sillä kaikki eivät voi, halua tai pysty kertomaan palautetta ääneen ringissä.

Yksi tapa on levittää tunnekortit liinan päälle maahan, ja pyytää jokaista nimellä, omalla vuorollaan kertomaan, mikä tunne heillä on jäänyt päällimmäiseksi päivästä.

MITÄ TARVITSET

Tunnekortteja, joko itse tekemiäsi tai ostettuja. Meillä oli käytössä MAHTI-tunnekortit, jotka ovat tarkoitettu tunteiden ilmaisun, nimeämisen ja sanoittamisen tueksi. Ne sopivat käytettäväksi kaikenikäisten kanssa, mitä moninai-
simmissa tilanteissa. Tunnekortteja voi käyttää niin yksilö- kuin ryhmätapaamisissa. Lisäksi voit kerätä käpyjä äänestysnappuloiksi tai keksiä jonkin muun tavan.



MITÄ KANNATTAA OTTAA HUOMIOON

Koska kaikki osallistujat eivät osaa sanoittaa tunteitaan tai eivät puhu ollenkaan, pelkän verbaalisen palautteen kerääminen voi olla hankalaa tai jopa mahdotonta. Kuvat harjoitteista ja/tai tunteista auttavat osallistujia sanoittamaan tunteitaan, jolloin ohjaaja voi kysyä mistä harjoitteesta tämä on pitänyt eniten tai minkälainen olo hänellä on retken jälkeen.

Ota huomioon, että retki on voinut olla onnistunut, vaikka retken päättyessä osallistuja voi tuntea olonsa jo väsyneeksi. Sen takia hän voi valita kortin, jossa on väsynyt tai surullinen hahmo, vaikka retki olisi ollut hänestä upea. Siksi on tärkeää yrittää kysellä tuntemuksia jo retken aikana. Monesti hetkessä annettu välitön palaute kertoo enemmän kuin jälkepäin tehty palauterinki tai purku.

Älä myöskään kysy liian monia asioita. Se tekee palautteesta hankalaa ja aikaa vievää, johon osallistujat eivät enää jaksaa keskittyä. Käytä palautteen keräämiseen maksimissaan 15 – 20 minuuttia retken lopusta. Aikuisilta osallistujilta (luokan opettaja, henkilökohtaiset avustajat) voit kysyä palautetta jälkepäin, esimerkiksi verkkolomakkeella.

YLEISIÄ HUOMIOITA

Alla olevat huomiot perustuvat omiin kokemuksiimme sekä kerättyyn palautteeseen, jota saimme opettajalta sekä projektiin osallistuneilta oppilailta.

Vahvana suosituksena ohjattava autismin kirjoon kuuluva ryhmä kannattaa ehdottomasti joko tavata etukäteen, tai tämän ollessa mahdotonta, kerätä tietoa muulla tavoin ryhmästä olemalla luokan opettajaan hyvissä ajoin yhteydessä ennen retkien suunnittelua. On myös tärkeää sitouttaa mahdollinen opettaja ja avustajat retkeen, jotta voit ohjaajana itse keskittyä elämyksellisen retken ohjaamiseen osallistujille.

Tämä perustuu kokemukseemme siitä, että meidän olisi ollut hyvin mahdotonta tietää minkätyyppiset harjoitteet toimivat juuri tälle kohderyhmälle. Näin pystyimme huomioimaan asiakkaiden yksilölliset tarpeet, ja tarjoamaan heille positiivisen, elämyksiä täynnä olevan kokemuksen luonnosta ympäristökasvatuksellisia menetelmiä käyttäen.

Toinen tärkeä asia on selkokielen käyttäminen. Ohjaajan kannattaa puhua selkeästi. Asian voi myös ilmaista muulla tavoin, esimerkiksi käyttämällä apuna viittomia, kuvia tai viittomakieltä. On hyvä varautua myös toistamaan ohjeet useaan kertaan. Se ei johdu kohderyhmän kiinnostuksen puutteesta, vaan siitä että osallistuja ei välttämättä ole ymmärtänyt annettuja ohjeita, tai on mahdollisesti unohtanut ne. Varmista ennen ohjeiden antamista, että olet saanut osallistujan/osallistujien huomion. Kun puhut osallistujille, kannattaa sinun esimerkiksi puhutella heitä nimellä, jotta he ymmärtävät että puhut juuri heille. Älä kysy montaa asiaa kerralla, ja pidä lauseesi lyhyinä, konkreettisina ja ytimikkäinä. Ole puhuessasi kirjaimellinen, autismin kirjoon kuuluvat henkilöt eivät välttämättä ymmärrä retorisia kysymyksiä, sarkasmia tai liioittelua.

Projektiin osallistuneita oppilaita ei kiinnostaneet hienot ympäristökasvatukselliset sanat, vaan se mitä asialla oikeasti tarkoitetaan. Liian abstraktit käsitteet voi siis kokonaan unohtaa. Samasta syystä on hyvä antaa harjoituksille aikaa, huomioiden osallistujien yksilölliset tarpeet. Nopeille voi antaa ylimääräisiä tehtäviä tai esittää tarkentavia kysymyksiä.

Ohjaajan kannattaa varautua siihen, että tehtävään ja siirtymiin menee luultavasti kuviteltua enemmän aikaa. Älä suunnittele liian pitkää kokonaisuutta,

hyvä retken pituus kokemuksemme mukaan on 1,5 - 2 tuntia.

Älä vaivaannu siitä, jos ryhmä saa suoritettua vain kolme harjoitetta, sillä loppuaika voi hyvin olla vapaata tutkiskelua tai eväiden syömistä, jos näin on suunniteltu retkellä tehtävän. Erityisesti jos luonnossa ei ole retkeilty aiemmin, voi olla hyväkin tehdä vähän väljempi suunnitelma, joka jättää ryhmälle aikaa omaehtoiseen tutkimiseen. Vaikka harjoitus olisi yksilötehtävä, on lopussa hyvä keääntyä yhteen ihastelemaan lopputulosta ryhmänä.

Ohjaa ja opasta luonnossa liikkumista, kiinnitä huomioita reittivalintoihin ja maaston epätasaisuuteen. Määrittele tarkasti alue, jonka sisällä osallistujien tulee pysyä, jotta ryhmä ei hajoa, eikä ylimääräistä aikaa mene tähän. Informoi luokan opettajaa ja huoltajia retken sisällöstä ja tarvittavista varusteista, kuten sadetakista tai hyvistä kävelykengistä, jotta onnistunut elämys ei jää puutteellisesta varustelutasosta kiinni.

Kerättäessä luonnon materiaaleja opasta, että kasveja ei revitä eikä luontoa roskata, ja että mahdolliset eväspaperit lajitellaan retken päättyessä yhdessä. Jos jaat materiaalia, ohjeista ensin harjoite ja jaa materiaali vasta tämän jälkeen, sillä kokemuksemme mukaan osallistujien huomio herpaantuu ja ryhmää on vaikea saada tämän jälkeen kuuntelemaan ohjeita.

Kerää palautetta retken aikana ja sen jälkeen, käytä apunasi kuva- ja tunnekortteja. Motivoi, kannusta ja anna verbaalista palautetta aina kun voit. Kiitä osallistujia ohjauskerran päätteeksi.

Muuta huomioitavaa:

Pakkaa mukaasi retkireppu. Tähän mahtunee materiaalit, joita tulet tarvitsemaan harjoitteita ohjatesasi. Muista lisäksi ensiaputarvikepakkaus ja istuma-alustat.



Appendix 2. Risk assessment of the lessons (English)

The risks of the program (nature lessons) have been identified and assessed. The person/s in charge of implementing the forest trips must be aware of the dangers and risks of the program, and what the consequences may be. Preventive arrangements, contingency arrangements and risk management have been designed for each identified risk and risk. Both students oversee the nature lessons.

Danger/Risk	Accident/Seizure
Cause	Tripping, slipping, cutting, disruptive behaviour, seizures, personal reasons, allergic attack
Consequence	Injuries that need medical attention, momentary interrupt, the suspension of program, allergic reaction
Prevention	<ul style="list-style-type: none"> - good instructions for the group before start - the terrain and route is planned taking into account the target group - there are 2 instructors, teacher and 2 to 3 assistants with the group the whole time - there will be no rush or running around uncontrolled - the student's allergies are known - one emergency kit for small injuries is with us all the time and the staff has been trained in First Aid - If needed, the school has a nurse and the teacher has the contact information of the legal guardians
Preparedness	<ul style="list-style-type: none"> - the instructors have EA1 and EA2 First Aid skills/card - there are enough first aid supplies - everyone participating knows where the First Aid kit is - the nature lessons are planned to be motivational and safe, physically and mentally for all the participants
Responsibility	Safety is the responsibility of guiding instructors. In this case, Annina Wallinsalo and Delia Manea. The teacher oversees the class.

Appendix 3. Evaluation form of the lessons (Finnish)

PALAUTEKYSELY:

Elämykselliset retket

1. Nautitko ulkona olemisesta? Ympyröi vastaus.



2. Olivatko harjoitteet mukavia?



3. Mikä oli sinulle mieluisin harjoitus? Rastita paras harjoitus.



Tuoksukuksat



Luonnon värit



Luupit



Valokuvakehykset



Rauhoittuminen



4. Haluaisitko osallistua elämykselliselle retkelle uudestaan?

