HUMAK

T H E S I S

Creating your personal learning journey
A student guide to foster reflection on independent trips.

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ABSTRACT

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Reflection is an essential part of experiential learning in the outdoors. In this study a reflection card is created for students who want to learn from their experiences without the facilitation of a teacher. This is important because students need guidance and structure to be able to independently use reflection on outdoor trips. Reflection is the main catalysator for learning in the outdoors and is the transfer of those learning lessons into other aspects of life. Hence, a reflection card is an important tool to benefit and learn from experiences and will prevent that the experiences will fade away without active learning or personal growth.

Based on literature in the field of outdoor education, this study explores the concept of reflection and seeks to gain a better understanding of the outdoors as a learning environment. In addition, the study reveals success factors for reflection such as goal setting and reflective methods. Based on these insights a first draft of the reflection card is created. The first draft is reviewed by an outdoor educator, two students and an educational specialist. Based on their input the reflection card was adjusted and finalized to meet the needs of the target group. Subsequently, the reflection card is implemented and tested among Outdoor Education students of the Humak university of applied sciences. Two students and their teachers are interviewed to evaluate the use of the reflection card in practice. The evaluation is divided into three levels: the reaction of the participants, the effect in learning, and the effect on the behaviour of the participants in the outdoors.

The results show that the reflection card is a useful tool for students to structure their reflection in the outdoors. Participants feel that the card is innovative and valuable. They see a clear need for the card and express the intention to use the card in the future while on trips in the outdoors. Based on the results, this study successfully develops a reflection card for Outdoor Education students and recommends the use of this card in outdoor activities where students need to reflect on their own experiences.

Keywords: Reflection, Education, Outdoor

CONTENTS

1 PRE-FACE

Message to my team:

Hanna, Auli, Netta and Minna, I want to thank you for your wonderful company. I think it was very brave that you stepped into this adventure without knowing me or the others. I was pleased to get to know you, I think you all have a unique personality and an amazing set of skills. During the trip our team felt powerful and connected which made the trip, for me and all of us, enjoyable and relaxed. I learned lots from all of you and still look back on the trip with a big smile on my face, thank you!

Marie-Louise

2 INTRODUCTION

The research question of this study came alive during my personal experiences on a 9-winter hike that I organized and led myself. After the trip I realized that I learned many new skills, but I found it hard to recall and explicitly specify the experiences that I had. Reflecting on this process, I missed a framework that guided me during this learning experience in the outdoors. I realized during this trip as well as in my studies, I gained many valuable learning experiences but again missed a framework to reflect independently without active facilitation of our teachers. While reflection is important to be able to learn from experiences and use the experiences in the outdoors to grow as a person.

Based on my personal experiences as an Outdoor Education student I decided to create a reflection card that facilitates learning from experiences on outdoor trips. This chapter will tell the story about the initiation of the project and how my personal experience turned into a research project.

2.1 9-day winter hike

This March, I organized a 9-day ski-hike through Finnish Lapland. As a 3rd year outdoor education student, I wanted to put my own skills and knowledge to the test. During school trips I was used to practice my planning and leadership skills, however there were always classmates and teachers who could help and guide me through this process. For this trip, I wanted to be solely responsible to show myself that I was able to plan, organize and lead a trip on my own.

On most of the outdoor trips that I did, I was one of the few or the only, woman in the team. For this trip I wanted to experience the power of a female team decided to make it a female-only trip. Beside my wish for female power during my trip, my intention was to encourage positive team dynamics. This was needed because I met all the ladies online and we had never met of spoken to each other before. Also, we all lived far apart from each other in different regions of Finland. As a leader my goal was to create a team where everybody felt safe and could work effectively together. Because the trip contained 9-days skiing through a remote area our teamwork would be the most important factor for a successful, safe, and fun trip. Besides positive team dynamic I also intended to encourage learning and skill exchange during the trip. The women that joined my team all had an excellent skillset and good knowledge about winter

camping and skiing. Because there was so much expertise in the team, I set up a learning environment where we could share our knowledge and skills with each other.

For me as a leader, the project was challenging due to the length of the trip, the weather conditions, and the remote area the trip took place in. The trip started in the Lappish spring which meant that there was a possibility that temperatures would drop till -30 (it did).

In addition, an extra challenge was to find participants for the trip. As an international student I had a small network in Finland and therefore did not know any women that wanted to join me. To find a team I set up a website (expedition.eventcreate.com), contacted all my Finnish friends and started to campaign on social media. After an extensive search, I was able to set up a team with 5 brave ladies, Sisukas naiset in Finnish.

Image 1: Team photo of the 9-day winter hike organized by Marie-Louise (Johanna) ter Horst in 2020.

When I look back on my experience, I realize that I learned a lot. Of course, I gained experience in technical skills such as route planning, safety plans, risk analysis and gear logistics. However, for me the most important learning experience was that I learned to trust my own judgement and decision making during the trip. In the wilderness you cannot rely on others to make decisions for you. Before the trip you can gather information but once you are out in a remote area it all comes down to you and your team. Together you must make the right decisions on which way to go. I still remember the moment on the trip that I had this realization, it felt incredible empowering and gave me confidence to step up as a leader. I cannot imagine any other learning

environment that could have taught me this as vividly and intense as my experience during that trip together with my team.

Personal note:
'The moment I gained the confidence to make the decisions felt incredible empowering.'

Reflecting on my experiences a few months after the trip, I find it hard to recall the lessons that I learned in a structured way. I remember certain parts of the trip vividly while other things have faded away. Also, I realize that some struggles that I had and some of the challenges that were present during the trip are fading away in my memory. This makes me realize that it would have been valuable if I had structured and documented my learning process more, so I could recall the learning and become conscious of the process I went through. This would allow me to re-experience my own learning process and enables me to apply the learned lessons in future situations.

From my personal experience to a thesis

My experience of organizing and leading this 9-day hike are the starting point for my thesis. Through this research, I hope to inspire other students to organize independent trips themselves. In addition, the aim of the research is to create a reflection card that captures learning and personal development on independent trips in the outdoors. Outdoor trips in nature are a powerful tool for personal development. In every trip, there is something big or small to be learned. However, if you do not actively engage in these experiences most of this learning will stay unconsciously. A reflection card will help learners to capture the learned lessons on outdoor trips. As a result, learners will become more conscious of their own development and growth. This is important because through active realization the learning can be intentional applied to other settings and situations instead of unconsciously fading into the background of our mind. Reflection is the main catalysator for learning in the outdoors and the transfer of learning into other aspects of life. Hence, this research will create a reflection card to foster reflection from experiences in the outdoors.

> Research goal:
> Creating a reflection card to foster learning from experiences on independent outdoor trips.

3 COMMISSIONER OF THE THESIS

The commissioner of the thesis is Sinéad Or Pollock. Sinead is an outdoor Educator from Ireland and teaches at several outdoor institutes. In addition, she is part of the organization Headspace Adventures. Headspace adventures specializes in outdoor therapy and organizes outdoor weeks for teens. Sinéad acknowledges the need for a tool that fosters learning from experiences on independent outdoor trips and confirms the use for her own students. Unfortunately, due to the Covid-19 virus it was not possible to research among students in Ireland. As a solution, we decided to express the idea and the need for a reflection card to my teacher of the Humak university of Applied Sciences (UAS). My teacher shared my viewpoint and saw a clear need for the use of a reflection card in the study program of Adventure and Outdoor Education (ADED) of the Humak UAS. A collaboration with the Humak UAS made it possible to test the card among Outdoor Education students and strengthens the connection of this study with the work field. As a result, the commissioners of the thesis will be Sinéad or Pollock as wel as the Humak UAS.

4 KNOWLEDGE BASE

The winter hike was the accelerator to personally gain new skills and knowledge. During my trip I experienced progression in my leadership-, teamwork- and technical skills. Besides my personal experience, the literature underlines the benefits of independent experiences in the outdoors and shows that it stimulates learning and personal development (Daniel, Bobilya, Kalisch, & McAvoy 2014). Based on the literature I found that there are three aspects of outdoor learning that are unique compared to other forms of learning, respectively: 1) The degree of learner autonomy, 2) The dynamic learning environment, and 3) The process of learning by experience. This chapter will explain those concepts into more detail.

4.1 Independent trips as a powerful learning experience

4.1.1 Autonomy

Autonomy can be defined as the ability of a person to make his or her own decisions (Varelius 2006). In most outdoor programs learners are encouraged to take responsibility and develop their leadership skills. This is often done by gradually providing students more autonomy as they progress in their studies and gain more skills and knowledge. This can be situated towards the learning process itself as well as the overall execution of a trip. A review article of Daniel et. al (2014) stated that autonomous student experiences such as final expeditions of an outdoor program or solo trips have many beneficial effects such as increased self-efficacy, life effectiveness, leadership, communication, and outdoor skills (Sibthorp 2003; Sibthorp & Arthur-Banning 2004; Sibthorp et al. 2007). Besides the growth on an individual level, autonomous experiences in the outdoors also improve group development through group resilience, - responsibility, and group cohesion (Bobilya, Kalisch, & Daniel 2013). Finally, participants are more motivated for their own learning process compared to traditional forms of learning (Daniel et. al 2014).

Autonomy is a determining factor for powerful outdoor learning experiences because it stimulates students to take responsibility for the situation and put their own skills and knowledge into practice. A study showed that unplanned or uncertain experiences in the outdoors where participants had received autonomy and responsibility were often crucial in their personal development (Ward 2012).

Personal note:
'The level of autonomy and responsibility during the 9-day hike had a big impact on me as a person. I was no longer able to rely on the judgement or help of my teachers. It gave me the feeling that this time, it was for real and pushed me to check and carefully plan everything every step.'

To summarize, the level of autonomy that students gain stimulates their development and growth. Not only on a personal level but also on a group level. In addition, individuals are more motivated to learn and develop themselves if they have autonomy over their own learning process in the outdoors.

4.1.2 Dynamic learning environment

The outdoors is a powerful learning environment that provides many opportunities for personal development and growth. It is crystal clear that the outdoors as a learning environment drastically differs from a traditional classroom. Within the literature I found three characteristics that make the outdoors a dynamic and effective learning environment, respectively the degree of uncertainty, the involvement of body and mind and learning from experiences.

At first, trips in the outdoors contain some degree of uncertainty, risk, and challenge (Wagstaff & Attarian 2009). A trip is never fully predictable and controllable due to the weather, terrain, and group dynamics. These levels of uncertainty help learners to confront their own anxieties and gain more self-awareness. In addition, it can teach learners many valuable skills such as reliance, self-confidence and adverse for uncertainty (Ewert 2014). In relation to this uncertainty, the actions of learners in the outdoors have real consequences (Prouty 2007). Pitching your tent in a wrong spot can result in a wet sleeping bag or worse... Nowadays, uncertainty and direct impact of actions are absent in most modern learning situations. This emphasizes the power of learning in the outdoors. Secondly, an outdoor trip includes learning from experiences physically as well as mentally. Instead of sitting in a classroom, passively gaining knowledge, a learner goes outside to have real-life experiences which engages the learner mentally as well as physically. This active form of learning makes it easier for learners to transfer the lessons they learned to other aspects of their live, called the transfer effect of learning. Also, it motivates students to learn as they are actively engaged in their learning process (Furman, Nate & Jim Sibthorp 2013).

To summarize, the outdoors is a powerful learning environment because it involves a level of uncertainty, risk and challenge that is not present in a traditional classroom. In addition, the actions of leaners have real consequences and learners can learn from their own experiences. These factors are beneficial to transfer the new skills and knowledge to other settings and motivates students to be more engaged in the learning process.

4.1.3 Learning from experiences

Besides autonomy and the powerful learning environment, the process of learning from experiences that takes place on independent outdoor trips is unique compared to traditional classroom education. Experiential learning is the dominant learning style present on independent outdoor trips. Learners actively learn through experiences instead of passively sitting retrieving knowledge.

Experiential learning can be defined as the process through which a learner constructs knowledge, skills, and values from direct experience (Jacobs 1999). The essence of this learning approach is to create meaning out of an experience through reflection. According to Zittoun & Brinkmann (2012) creating meaning indicates that learners interpretate situations or events in the light of their previous knowledge and experiences. Learners reflect on their own beliefs and emotions that are present in that situation. This is different from traditional classroom teaching where emotions or active involvement are often not part of the learning process.

The characteristics of the outdoors as a learning environment matches with the essence of experiential learning. For example, one of the benefits from experiential learning is that learners actively interact with their environment and face situations that are real and relevant for them. In addition, it involves creative problem solving which connects to the level uncertainty of the outdoors. Within the outdoors learners are often faced with new situations where they must apply their knowledge and skills in a creative way to find a solution. For example, setting up a tarp for an overnight camp in an unfamiliar place. There is not one correct way to solve this problem however the end goal is to find a safe spot to spend the night. The connection between the outdoors as a learning environment and the main principles of experiential learning emphasize that the outdoors is a perfect environment for experiential learning to take place.

To summarize the core values of experiential learning are matching with the characteristics of the outdoors as a learning environment. Experiential learning aims to actively engage student through real life situations and motivates them to use creative problem solving. The outdoors

is a perfect environment to gain those experiences and learn from them due to the level of uncertainty and the need for active involvement of learners.

4.1.4 Conclusion

A combination of the degree of learner autonomy, the outdoors as a learning environment and experiential learning results in powerful learning opportunities for students. As stated in the start of this chapter reflection is the underlying element of learning in the outdoors. Without reflection participants do not learn from their experiences. The next chapter will explain what reflection is, and why it is essential for learning during outdoor trips.

4.2   Reflection – A personal note

Reflection is the underlying fundamental concept for experiential learning. However, not all students are motivated to use reflection. As a student myself I did not always see the need and added value to reflect. In the next chapter I will reflect on the need for myself as a learner to understand the concept of reflection and the use of it.

This year I have been studying for 10 years, which means that I have been in school almost my entire twenties. Reflection is an integrated part of curricula in universities, and as a result I reflected a million times to meet the criteria of a school project or an assignment. However, although I reflected many times, I believe I never fully understood the main essence of reflection. For me it stayed a fuzzy term, and everyone seemed to have their own interpretation and way to do it. During work as a teacher on an applied university, I experienced that there can be a stigma around reflection: it seems that it is only for people who feel confident to express themselves. It seemed to me that reflection was something for certain personality types while others did not like this way of learning.

The question that arose for me, was: *What exactly is reflection and how should it be used in practice?* Even after having a degree in Educational Sciences and being a 3rd year Outdoor Education student, these questions were alive for me, and I believe that I am not the only one with these questions. I think that for many students, reflection is seen as something that is just a part of their study program. As students we must reflect, but do we really know what reflection is? I believe that a clear understanding of reflection is vital to be able to use it in practice and experience the benefits. That is why in the next paragraph I will explore the topic of reflection into more depth.

4.3   Reflection in the outdoors

Reflection is a process of exploring and examining ourselves. Our behaviour, our thoughts and our believes (University of Edinburgh 2021a). It can be used to gain a better understanding of a situation and our own actions. Reflection will make a learner conscious of its own insights and growth which makes the learning more lasting (University of Edinburgh 2021b). There are two forms of reflection that are relevant in the outdoors, reflection on action and reflection for self-awareness. In the following paragraphs I will explain the two concepts into more depth.

4.3.1 Reflection on action

Reflection that is focused on a specific situation or experience is called reflection on action. During this reflective process the current situation relates to previous experiences, thoughts, or values. The insights that are gained during this process are the foundation for learning. Through reflection on action learners update their personal understanding of existing theories.

Reflection on action, example

An example of reflection on experience during my trip is the way I improved my skiing skills. I learned the correct way to place my skies going uphill with a heavy sledge. The first few hills I kept sliding down the hill which made me quite sweaty and wasted my energy. By reflecting on my failed attempts, observing the techniques of others, and asking my team members for advice I started to understand what the proper technique was to go uphill. This is a typical example of reflection on action.

Reflection on action in the outdoors can be used to understand a situation in the outdoors and is useful to optimize skills or receive a better understanding of group dynamics within a team. In addition, it is a good method to improve the safety on a trip physically as well as socially. Safety is number one priority during outdoor trips as everyone needs to return home safe and sound. Thus, it is important that participants reflect on situations that went different than expected or on mistakes that were made. This will provide insights in why things happened the way they did, and whether things could be improved or done more safely. As a result, reflection on action is a fundamental process to maintain safety and improve skills and proceedings when going on an outdoor trip.

4.3.2 Reflection for self-awareness

Beside reflection on action which is focused on a situation it is possible to focus reflection on oneself as a person, this is called reflection for self-awareness. In the outdoors a specific situation can be a starting point to reflect and receive a better understanding of ourselves as a person, our strengths, values, and believes. Reflection on self-awareness requires meta-cognition. Meta-cognition is often described as thinking about one's own thinking. It is defined as an awareness of one's own thinking process and an understanding of the patterns behind them (University of Edinburgh 2021b). Instead of understanding based on the context we are in,

which is reflection on action, we are trying to understand the situation out of a personal point of view, reflection on self-awareness. Questions that are part of reflection for self-awareness are: What are my strengths and areas of growth? What gives me energy or drains it? What do others compliment me on or need to help me with? Reflection for self-awareness is a powerful method to gain more understanding in your own personality, strengths, weaknesses, and fears.

The previous example where I kept sliding down the hill and used the method reflection on action can also be applied to reflection for self-awareness.

Reflection for self-awareness, example

The previous example, where I kept sliding down the hill with my skis, can also be used for reflection on self-awareness. Instead of reflection on the situation I can reflect on my own personality and the way I delt with the situation. Instead of trying to understand the situation based on the context (my technique, snow conditions or the quality of my skies), I also could have explored why this was a bothering me.

A method for reflection for self-awareness is to ask the learner 5x why did this bother me? Imagine skiing uphill a fjell in Finnish Lapland. For the third time you are sliding down, and you are getting agitated. In this situation you can ask yourself 5 times: "Why does this bother me?" To clarify this method, I answered the questions based on my own experiences on the fjells in Lapland.

- *I am sliding down-hill backwards for the 3rd time in a row. Why does this bother me?*
  I am agitated because I am slowing down the group.
- *Why does this bother me?*
  I am keeping the others behind schedule because they have to wait for me.
- *Why does this bother me?*
  I feel, I have to be a good skier because I am the leader of the group. A leader cannot be the slowest and must be good at skiing as this a skiing trip.
- *Why does this bother me?*
  As a leader I have to be the best of the group so they will take me seriously and accept my leadership.
- *Why does this bother me?*
  Otherwise, it will look like I am incapable in what I do.

- *What do those feelings and this thinking patterns say about me?*

  I felt quite insecure about my leadership skills at the start of our trip and felt that I was not competent enough to be the leader of the group. Sliding down-hill got me agitated as it made me insecure about my own leadership skills.

This reflection helped me to realize that my frustration about my skiing skills was based on insecurities about my leadership style and my credibility in the group. This understanding made me realize that the fact that I was not the best skier of the group did not need to affect my credibility as leader. For me, the key lesson was that I needed to be honest to others but also to myself about the things that I am capable of as a leader and the things that I need help with from the group. I also shared my feelings and insights with the group to understand how they saw me as a leader. This process gave me a lot of confidence, I was able to gain more trust in myself and enjoyed the skiing better. I did no longer translate the lack of skiing skills to all the other competencies I had as a leader.

The example clarifies that reflection on self-awareness can help learners to understand the thinking patterns behind their feelings and opinions. If learners are able to make a connection between their feelings and their own strengths, weakness and insecurities, they get a better understanding in themselves as a person. Most importantly, if leaners are able to act based on those insights they will be able to face their own insecurities and actively take charge and overcome them. Instead of living through fear, anxiety or insecurity and learn to live through courage, self-love and confidence. This is why reflection on self-awareness is a vital part of learning in the outdoors. It is an environment where emotions including insecurity, fear and anxiety can come up. Dealing with these emotions are a powerful learning tool that give self-confidence and self-insight which is an important life-lesson to learn.

4.3.3 Conclusion

To summarize, reflection on action is a vital process in the outdoors as it can promote social and physical safety on trips. Reflection for self-awareness on the other hand provides insight in the individual itself, its values, strengths, and personal point of view. It can help learners to gain insight in their own insecurities and thinking patterns. Subsequently, it helps students to understand why the feel and act in a certain way and encourage them to break with unhealthy patters. These types of reflection are highly important to promote the personal development and self-insights that educational outdoor programs often aspire.

Reflection on action gives us a better understanding about a situation (It's context and the people who are involved), while reflection for self-awareness gives self-insight a combination of both forms of reflection promotes the personal growth outdoor education programs aspire.

4.4 Parameters for a successful reflection

Participating in reflection does not automatically mean that a learning process will take place. There are several parameters that define the success of a reflection. At first, learners must be actively involved in and motivated for the reflection. If learners are forced to reflect but are not engaged in the process the benefits will probably not last. Secondly, it is important that learners understand the concept of reflection and understand how to use reflection to improve their own learning process. Without a proper understanding of the concept it is hard to reflect. Thirdly, in line with this, leaners should choose a type of reflection that matches their own learning goals (University of Edinburgh 2021a). For example, if students go on a trip to improve their skills and enjoy being out, reflection on action would be suitable. Reflection for self-awareness is less beneficial on trips like this. However, if learners are looking for personal growth and want to gain understanding of themselves as a person reflection for self-awareness would be beneficial.

4.5 Tools and methods to reflect

There are various tools and methods for reflection on action as well as reflection for self-awareness. The learning cycle of Kolb is a commonly used tool that received a lot of recognition in the field of (Outdoor) Education. The tool is a method to use reflection in action. However, it is not the only effective strategy. In fact, there is no scientific proof on the effects of the learning cycle of Kolb. Because it is the most known model, it is good to realize that the model is not any better or worse than other models of reflection on action (University of Edinburgh 2021b). Learners should choose a model that fits their own situation and preferences. The university of Edinburgh (University of Edinburgh 2021a) made an overview of different models and how to implement those models. For teachers as well as students it can be beneficial to explore these methods before they get involved in reflection.

5 FROM THEORY TOWARDS A PRACTICAL PRODUCT

Based on the theoretical framework a draft version of the reflection card will be made. Subsequently, based on feedback the card will be adjusted. The final version of the reflection card will be evaluated by adventure and outdoor education students and teachers. This chapter describes the thinking process behind the first draft of the reflection card.

5.1 Target group

The reflection card will be developed for learners who want to go on independent trips. To specify the target group, the product will be created for students at outdoor education colleges who aspire to apply reflection during their own trips. Students are in their 2nd or 3rd year and have enough knowledge and skills to maintain their personal safety as well the safety of others in the outdoors.

5.2 Learning goals

To be able to create a reflection card that matches the need of students in practice learning goals were formulated. These goals were the focus during the development of the reflection card. The following learning goals were set:

- Learners understand the concept of reflection, specifically reflection on action and reflection for self-awareness.
- Learners understand when to use these concepts in practice.
- Learners can apply both types of reflection on independent outdoor trips.

5.3 Context

The outdoors is a unique learning environment and therefore it is important to take the context into account when developing a product. The following factors affect the design of the reflection card: There are limited resources such as pens and paper available on a trip in the outdoors. However, this provides opportunities for more creative ways of reflection. In addition, there is limited free-time available during a trip. Therefore, methods need to be short and easy to use. Also, learners should be prepared for reflection because during the trip there are no resources to find information or methods about reflection.

In addition, the material should match the three phases of an outdoor trip. A trip has the following phases: a preparation phase (route planning, safety, and risk analyses etc.), the execution of the trip (maintaining mental, social, and physical safety of oneself and team members) and the ending phase (gear maintenance, reflecting on safety). To match the learning process with natural the flow of planning and executing an outdoor trip the reflection will also be divided into three phases: before the trip, during the trip and after the trip.

Based on the literature review and these factors a draft of the reflection card was created. The following chapter will discuss the evaluation and further development of the card.

Phase 3: Back home
Document your learning journey

Goal: Reflect on the process afterwards.
Useful to: Capture your learning journey.

Method: Choose your own style!
Written reflection/ conversation with self/ reflecting with others/ creative forms such as videos, paintings etc.

Keep in mind the following questions:
1. ·What were important moments before or during your experience?
2. ·What did you learn about a situation or others?
3. ·What did you learn about yourself?
4. ·What would you like to do differently in the future and why?

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Reflection Card
3 phases to use reflection outdoors

Phase 1: Trip preparation
Answer the questions to plan reflection

1. Why do I want to use reflection?
2. Wat do I hope to gain through reflection?
3. How do I want to reflect?

Reflection on action (see phase 2)	Reflection for self-awareness
Facilitated	Self-guided
Individual	Group
Fixed time	Ongoing
Writing, talking, making photos, playing games or invent other creative methods.	

1. What should I prepare beforehand?
   a. Create a structure.
   b. Organize materials.
   c. Schedule time
   d. Brief others beforehand

Tip: Plan reflection but be flexible to adjust once you are out.

Image 2a**:** The last and first page of the draft version of the reflection card of this study.

The reflection card will be printed double-sided and folded into a booklet. The first column is the last (back) page of the booklet. The second column is the first page of the booklet.

Phase 2: in the outdoors
Choose a method that fits your learning goals

1: Reflection on action

Goal: Understand a situation. What happend and why?
Useful to: improve practice, learning from mistakes, understand group dynamics etc.
Method: Reflection cycle

Answer the questions to understand the situation.

1: What: The experience
- What is the situation and the outcome?
- What did I try to achieve?
- What was everyone's role?
- What feelings did come up?

2: So what: Implications
- What does this teach me about the situation and about myself?
- What could I or others have done differently?

3: Now what: The action plan
- What could I do to handle a similar situation in the future?
- What are the consequences of this new action?
- How will I make sure I follow through?

2 Reflection on self-awareness

Goal: learning about yourself and your actions..
Useful to: reflect on personal strengths and areas for growth.
Method: Explore strengths and growth potential

Step 1: Reflective questions.
- What are my strengths and areas of growth?
- What give me energy or drains it?
- How do I know this and how does it show in practice?
- What do others compliment me on or need to help me with?

Step 2: Analyzing experiences.
Describe a situation you were involved in.
- What helped me succeed?
- What hindered me?

Focus on:
BEHAVIOR, ASSUMPTIONS or VALUES

Tip: Ask others about their opinion: Think why they might experience it that way.

Image 2b**:** The two middle pages of the draft version of the reflection card of this study.

The reflection card will be printed double-sided and folded into a booklet. The two columns are the two middle pages (left and right) of the booklet. These pages are shown if the booklet is folded open.

6 RESEARCH METHODOLOGY

This chapter describes the research methods used to evaluate the reflection card that was developed. The product will discuss the methodological approach, methods of data collection and finally the method used to analyse the data. The goal of this chapter is to provide insight and to be transparent about the methodological choices that were made in this study.

The aim of the research is to develop a reflection card for students to promote learning and personal development on outdoor trips. The development of the card was divided into two phases. At first a draft version of the reflection card was made and evaluated by two Adventure and Outdoor Education students of Humak UAS and a teacher of the program. Subsequently, based on the feedback a final version of the card was made. This final version was implemented in the Outdoor Education program of Humak. The experiences of students were evaluated and teachers were interviewed.

The adjustment of the first draft of the card can be indicated as an informal evaluation. The feedback was given through semi-structured interviews and a feedback session with my teacher. Topics that were discussed were: overall feeling, content, and the practicality in the outdoors. The following paragraphs describes the methodology of the implementation of the reflection card.

6.1 Research model – evaluation

Initially the goal of the project was not to implement the reflection card in my own school. However, due to the Covid-19 virus opportunities were cancelled, and a new plan had to be made. My teachers of the Humak UAS offered to test the product among students of the second year of my study program Adventure and Outdoor Education. The goal of the implementation was to test and evaluate the material among students.

The aim of study is to design a reflection card for learners who aspire learning and personal development on outdoor trips The study is an applied design study, which means that the aim of research is to develop a product for a specific target group in a practical setting. A quantitative research design was chosen for this research. This type of research is used to receive a better understanding of concepts, thoughts and experiences and enables the researcher to gain in-depth insights on topics (Streefkerk 2021). The methods chosen for this research design are semi-structured interviews. This means that the interview scheme has certain themes to explore

but there is no strict set of questions. This is a suitable method because qualitative methods provide meaningful insights as participants can fully express themselves. In addition, new ideas that are brought up during the interview can be explored (Streefkerk 2021). The data that is collected to evaluate the product can be indicated as primary data, which means that it is directly collected by the researcher. However, the content of reflection card is based on secondary data because design choices are made based on scientific research and professional articles. During the study qualitative research methods were used, which means the data is gathered through first-hand observations (Streefkerk 2021).

6.2 Methodological approach

To be able to evaluate the product, semi-structured interviews were conducted. There were in total 5 interviews. The sample existed of 2 students of the second study year of the study Adventure and outdoor education of the Humak UAS in Finland. It is important to gather data from this group as they are the target group and the actual future users of the product. In addition, two experts in the field of reflection were interviewed. First an educational specialist and second a psychomotor therapist who integrates outdoor activities and reflection into his treatment approach. Those two specialists were chosen to evaluate the product to explore if the pedagogical approach and educational tools were correctly used. Finally, a teacher of the program Outdoor Education was interviewed to explore if the product would be suitable to use in the practice as they have experience with reflection in the outdoors. The participants in the study were selected out of the network of the researcher.

6.3 Procedure

To be able to test the card in practice, the reflection card was tested among second year Adventure and Outdoor Education students. As a part of their study program those students go in small groups on an independent, self-organized trip. This is a good opportunity to test the reflection card, as this is the first time that students are responsible to set up and implement reflection into their trip without the facilitation or mentoring of one of their teachers.

Together with the teacher of the course it was decided that one week before the trip I would give a lecture to the students to introduce the card. The goal of the lecture was to introduce the card, explain how the card works and provide background information about the research. After the lecture the reflection card was placed on the online learning environment Moodle where

students could download the card on their phone or print it to use it on the trip. After the trips, the students were asked if they wanted to participate in the research and in result two students participated in the interviews.

The interviews took 30 minutes and notes were taken during the interview to gather the data. Beforehand participants were verbally notified about the informed consent of the research, which contained the goal of the research stated the fact that participation in the research was voluntary. Participants could end the research any time the wanted and data was analysed anonymous. I knew all the participants, teachers and educational experts that were involved in my study. This could have caused a bias in the data as participants might answer socially desirable to please the researcher. To deal with this I specifically asked all the participants in my study for their honest feedback.

The evolution was designed based on Kirkpatrick's Four-Level Training Evaluation Model (Kirkpatrick's Four-Level Training Evaluation Model, 2021). This model is used to evaluate training programs but can also be used to evaluate educational products. The model describes 4 levels of impact.
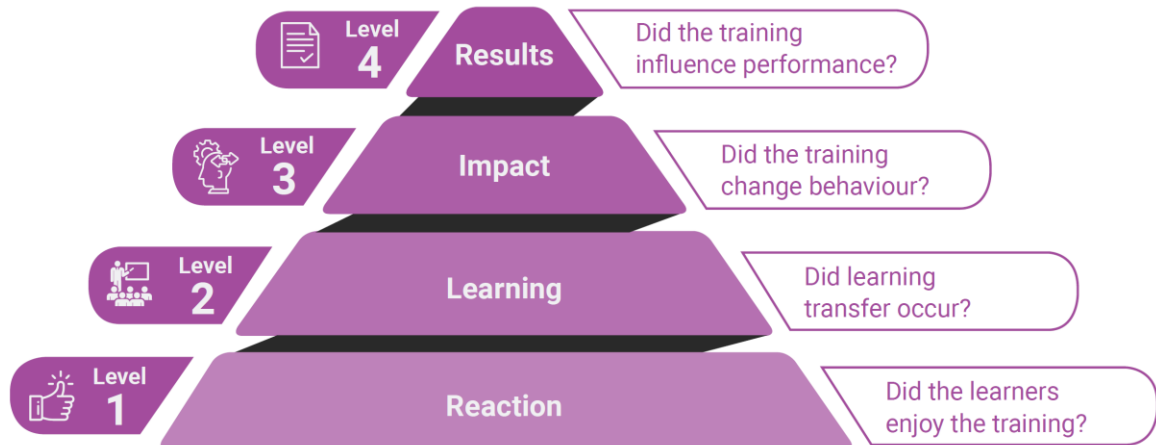

Fig. 1: Kirkpatrick's Four-Level Training Evaluation Model (2021)

Level 1 asks the question: Did the learners enjoy the tool? It is evaluated whether the learners liked the card, strengths, and weaknesses of the card and if they liked the design. Level 2 is focused on the learning transfer. Did the card contribute to a learning experience? Level 3 is about the impact of the card. Did the product help students to change their behaviour? In this situation, did the card help learners to structure their reflective sessions in the outdoors? Did they use it in practice, and did it have an added value for them? Level 4 is about the impact of

the tool on the long term. Did the reflection card improve the reflection skills of students on the long term?

For this research it was chosen to focus on level 1,2 and 3. Because students used the product only once, it is not possible to identify effects on the long term and therefore level 4 was excluded from the evaluation. Based on those levels of evaluation an interview schedule was created. The interviews were structured and had a set of pre-formulated questions. See Appendix 1 for an overview of the interview questions.

6.4 Reliability and validity

This research can be indicated as an applied study. This means that the environment wherein the reflection card was tested is a unique environment and cannot exactly be reproduced. However due to the applied nature of the research this is expected beforehand and does not undermine the results of the research itself. To secure the reliability for this applied study a clear procedure for the study was created. All participants had the same introduction lecture and gained the same instructions. In addition, they used the reflection card during their independent trip which happened during the same time.

Table 1: A table that explains the concepts of validity and reliability, Streefkerk (2021)

	Reliability	Validity
What does it tell you?	The extent to which the results can be reproduced when the research is repeated under the same conditions.	The extent to which the results really measure what they are supposed to measure.
How is it assessed?	By checking the consistency of results across time, across different observers, and across parts of the test itself.	By checking how well the results correspond to established theories and other measures of the same concept.
How do they relate?	A reliable measurement is not always valid: the results might	A valid measurement is generally reliable: if a test produces

	be reproducible, but they're not necessarily correct.	accurate results, they should be reproducible.

7 RESULTS

This chapter will discuss the results of the research. A summary of the most important points based on the interviews will be given. In addition, based on the feedback the final version of the reflection card will be presented. At first the results of the informal evaluation on the draft version of the reflection card will be discussed. Based on these results the new reflection card will be presented. Secondly, the evaluation of the implementation of the new reflection card will be discussed.

7.1 Results of the informal evaluation and development of the prototype

In this informal evaluation the overall feeling and the content of the reflection card were discussed. Subsequently, adjustments were made.

Overall feeling

The participants explained that they liked the card. They believed the card has a clear need and can help facilitate independent reflection in the outdoors. They all noted that it is useful to facilitate students to stimulate reflection in the outdoors. Also, all the participants agreed that reflection was divided into three different phases, a preparation phase, an on-trip phase, and an evaluative phase after the trip. This showed that the lay-out of the card was successful.

Participants found the design of the first version of the card not clear enough. Participants described the card as 'very wordy', 'too cluttered and 'not very clear'. They advised to use less words and make shorter sentences. Also, also different font styles and sizes were indicated as unclear. The use of arrows, the different boxes and the different colours were described as positive and made the design look 'interesting and useful'. Also, the image of the reflection cycle was indicated as very clear and helped participants understand the content better. Overall, participants recommended for every phase a short introduction, so the goals and methods are clear during every phase.

Some participants indicated that not only a self-reflection card but also a facilitator card would be useful for outdoor education students.

Finally, it was advised to create a manual to inform students about the meaning and the use of the reflection card. This was important because at some point the researcher had to explain the meaning of the card, in reality this is not possible and therefore a manual will be useful.

7.2 Content

The content of the reflection was not always clear for the participants. The feedback will be discussed based on the different phases.

Phase 1 preparation phase

- An introduction was missing, participants did not understand the aim of the card without an explanation of the researcher.
- Question 1 and 2 were too similar. One participant noted that it might be better to stimulate students to formulate their goals. The questions 1 and 2 were experienced as too vague.
- Question 3 is in general experienced as unclear. Participants did not understand what the meaning of the table was. After an explanation they understood but advised to delete the question to have more space on the card.

Phase 2: in the outdoors

- The reflection on action method was in general clear. Participants liked the reflection cycle that was explained and thought that it was useful. They specifically liked that it was a short and easy to use method. However, participants felt the lay-out was too cluttered. Also, not all the questions were experienced as clear or useful. For example, the question: 'How will I follow through?' was not understood by the participants.
- Reflection on self-awareness was experienced as too wordy. Participants appreciated the questions but thought there were too many to be practical in the outdoors. Also, the sentence: *focus on behaviour, assumptions, or values,* was not understood. The lay-out of this text was evaluated as unclear.

Phase 3: Back home

- In general, this phase was appreciated by participants as they indicated it was useful to have a reflection after the initial trip. However, the goal of this section was not clear for the participants and the researcher needed to explain before participants understood the use. A better introduction and detailed guidelines were recommended.

7.3 Adjustments made based on research results

Based on the input of the interview's adjustments were made and the final version of the reflection card was created.

Image 3a: The last and first page of the final version of the reflection card of this study.

The reflection card will be printed double-sided and folded into a booklet. The first column is the last (back) page of the booklet. The second column is the first page of the booklet.

Phase 2: Self-reflection in the outdoors
Reflect on the situation or on your own behavior.

1: Reflect on a situation in the outdoors.
WHAT: Reflect on a situation outdoors.
WHY: Learn from a situation, improve practice.
HOW: Use the '3x What' Reflection cycle.

Step 1: What
The experience
Describe the situation and the outcome.
- What was my intention?
- What did I, and others, do? *(helpful + unhelpful behavior)*
- What feelings came up?

Step 2: So what
Implications
- What does this teach me about myself and the situation?
- What could I, or others, have done differently?

Step 3: Now what
The action plan
- How do I want to act next time?
- Why is this important?

2: Reflect on your own behavior.
WHAT: Reflect on your own behavior.
WHY: Understand how you react and why.
HOW: Identify strengths and weaknesses.

Step 1: Reflective questions.
Think about your own reaction on an outdoor situation.
- What are my strengths and areas of growth?
- What gives me energy or drains it?
- What do others compliment me on or need to help me with?

Step 2: Analyzing situations.
Describe a situation in the outdoors in which you:
1. Were proud of yourself.
2.. Found hard to handle.

Think about:
- What helped me succeed?
- What prevented me from success?
Tip: Ask others for feedback.

Image 3b**:** The two middle pages of the final version of the reflection card of this study.

The reflection card will be printed double-sided and folded into a booklet. The two columns are the two middle pages (left and right) of the booklet. These pages are shown if the booklet is folded open.

7.4 Results of the formal evaluation

The adjusted reflection card was tested during an independent trip of 2nd year outdoors students of the Outdoor Education degree of the Humak UAS. The card is evaluated on three levels namely: the reaction, the learning, and the behavioural level. The results of the evaluation will be discussed in the following paragraphs.

Results

One participant used the card during the independent trip, one participant did not use the card. The reason for not using the card was not the designated facilitator of reflection during her outdoor trip. However, she was still able to evaluate the card because she attended to the workshop given by the researcher about the reflection card.

Level 1: Reaction

This level evaluates the reaction of the learners on the reflection card.

In general participants were positive about the card. The structure of the card, the colours and the simplicity were named as positive. Two participants indicated that this card is innovative as it is not commonly used in the Outdoor Education industry.

Participant:
"*The card is quite unique I have never seen something like this in the industry. E.g. Nols etc.'*"

All the participants had a clear idea of the goal of the card, namely, to provide a structure for reflection in the outdoors. This is corresponding with the intention and the goal of the reflection card. The participants indicated that is not only useful for students but for anyone in the industry who wants to include reflection in their outdoor program of activity. One participant noted that the card can be used for reflection in general and does not necessarily have to be used in an outdoor setting.

Participant:
"*I think this could be very useful for outdoor students, companies and guided tours. To take some of those reflective steps beforehand it can help to improve the tours you are going to offer. Some situations will be easier*

> *to predict. It can also be useful outside the field of outdoor education. For any situation or behavior. It can be used anywhere."*

Participants indicated the fact that the card structures reflection as the greatest strength. In addition, phase 2 was indicated as a powerful part of the card.

As a point of improvement phase 3 was named. This phase is seen as unclear an unstructured. This feedback will be discussed in the following section more thoroughly. In addition, a point of improvement was that the use of the card already requires skills and pre-knowledge about reflection of the participants. A manual along with the reflection card would be useful. This feedback was also mentioned during a reflective session with teachers of Humak UAS.

> *Participant:*
> *"For someone who has not reflected at all it might be confusing how to navigate around the card because it is quite short. A booklet on how to navigate around the card would be useful. I can imagine that if you have never reflected in your life and get this card, it might be a bit confusing."*

The content:

Phase 1: Participants liked the *Start here* sign, it gives a clear structure where to start. Also, the different steps were indicated as positive for the participants. The goal setting was indicated as important because it provides structure to a reflection. One participant told:

> *Participant:*
> *"If you do not set a goal, it can easily happen that people forget to set a focus for a reflection. Having a goal is important."*

One critical sidenote was that a participant said that the goal of a trip is not always known beforehand.

Phase 2: Participants saw the use of two types of reflection on the card, although they were most positive about the first reflection cycle as it is the most practical.

Participants named the 3x what cycle as a very useful method to reflect. In general, this part of the card was appreciated the most. Participants mainly appreciated the simplicity of the model.

In addition, participants appreciated the *now what* step. It helped them think how to translate their reflection into practice and apply their learning into real life situations.

Participants:
"I like the 3 what's cycle. That is pretty genius."

"This is really good and one of the most useful parts of the whole card. This 3x what cycle helps to devide the whole experience into smaller parts. It helps to see the different aspects."

Participants had some small suggestions for reflection for self-awareness. One participant noted that when asking for feedback it is good to mention that this feedback is growth feedback to make sure it is constructive. In addition, the card asks to imagine a situation in the outdoors. One participant noted that it does not have to be in the outdoors because this narrows the reflection.

Phase 3: Participants found this phase the most unclear. They indicated that the section *chose your own style* was unclear. A teacher also mentioned this during a previous feedback session.

Participant:
"Phase 3 is the one that felt less structured. What is the goal or the use of phase 3?"

One participant mentioned the importance of phase 3:

Participant:
"Sometimes you are tired on a trip and there is too much going on. Then reflection might be not the best time. But back at home you still can sit down and reflect."

Level 2 – Learning
This level evaluates whether people learned something by using the card.

Participants indicated that the card did not teach them new things or gave them a new perspective on reflection. They already knew about reflection because they have been using it during

their studies or in their own life. However, they said that the card mainly helped them structure the reflection, which subsequently helped them to learn from a situation. In addition, the reflection cycle presented in the card was a new model to them.

Participants:
"I think it teaches reflection skills. It will help you to start reflecting on your own behavior in the outdoors."

"The card gives me a tool to approach my reflection in a more structured way."

"It didn't change my perspective on reflection but added a couple of things to my toolbox."

Level 3 – Behaviour

This level evaluates whether the reflection card changed the behaviour of the learners in practice.

The participant who used the card indicated that it was useful to structure the reflection. It helped her and her group members to talk about their experiences and discuss everything they learned.

Both participants intent to use the card in the future. As stated before, the structure of the card is indicated as the biggest strength of the card.

Participants:
"I intent to use this card in the future for my instructor classes. I could even imagine forwarding it to my friends. It would be super useful."

"Yes, I would use it. I struggled with reflection before because my brain can be chaotic at times. This keeps you at the topic of reflection and does not distract you. It keeps you on the path rather than going on side paths."

"After my first school trip, I got some feedback on my behaviour. It was so hard to figure out why I felt bad about it. This kind of card would have helped me to structure my thoughts.

8 CONCLUSION AND DISCUSSION

The aim of the study was to create a reflection card for students to foster reflection on independent outdoor trips. Reflection is detrimental for students to be able to learn and develop based on the experiences they have in the outdoors. The reflection card is specifically designed for students in the field of outdoor education when they are on independent outdoor trips. During those trips there is no guiding by a teacher and in result a reflection card can help students to learn from their experiences.

This thesis is commissioned by an Outdoor Educator of Ireland. According to this expert a reflection card for students is important as it gives students a structure to reflect and encourage them think about their own experiences. In addition, a teacher of the Humak UAS underlined the value of a reflection card for students and was interested to implement and use the card for the Outdoor Education program of Humak UAS. This shows that there is a clear need for the reflection card and that it was useful to develop the card for the outdoor industry.

Based on a literature study on reflection a first draft of the reflection card was created, see p.22 and 23. The draft version was evaluated by two students and a teacher. Based on the feedback the card was adjusted. The following changes were made: Less words, a clean design, and a better formulation of sentences. In addition, some parts were removed from the card to improve the structure. As a result, the final version of the card was made, see p. 31 and 32. The final version was tested among students the Outdoor Education degree of the Humak UAS. The students were informed about the reflection card by means of a workshop, subsequently they got the opportunity to use the card during an independent outdoor trip that was part of their study program.

The reflection card was reviewed on three levels, the reaction of the learners, the degree of learning and the change of behaviour in practice. The students understood the goal of the card and saw a clear need and added value. Based on the evaluation, the biggest strength of the card is the structure that the card provides to a reflective process. The card itself does not provide new information but through the card students are able to have a reflection in a systematic way. As a result, students can learn new skills or gain new knowledge. The 3x times what cycle, see p. 31, is evaluated as the most valuable part of the reflection card. As it is a very practical and simple way for students to analyse a situation.

A point of improvement was phase 3, the goal of the phase was unclear to the participant although they saw the need after an explanation of the researcher. This indicated that phase 3 needs adjustments and an extra evaluation. In addition, it was mentioned that without an informative workshop about the reflection card, the card was hard to interpretate. Therefore, it is recommendable to create a manual along with the card.

One participant used the card in practice, the other did not use it during the trip. However, both participants intent to use the card in the future. This shows the practicality and value of the reflection card for the field of outdoor education. Also, students as well as teachers within the research mentioned that the card was innovative. As far as they know a card like this has not been implemented yet in the field of Outdoor Education. This shows that the card has a clear need and also brings something innovative and new to the sector.

Besides the need for the field of Outdoor Education participants saw a wider use of the reflection card. The card can be used by people in general who want to involve reflection into their activities and does not specifically need to focus on students. It can also be used outside the field of the outdoors. However, if the card will be used by a different target group or in a different environment it is recommended to re-evaluate the content. In general, the principles of reflection are generalizable between different target groups or environments. However, the specific details such as the steps in the preparation phase or the questions asked within the reflection methods will be more effective if they are specifically designed towards a target group or a specific environment.

As a researcher I believe that it is valuable to implement this reflection card in the field of Outdoor Education because it is important to guide learners through the process of a reflection. Reflection is a fundamental part of learning as it helps learners to step back from their experience, develop critical thinking and learn from a situation. Through reflection learners get to know themselves better and can improve their performance (University of Edinburgh 2021b). Without reflection learning cannot take place and no personal growth can happen. However, we cannot expect that learners automatically have the skills and knowledge to implement these complex processes. Giving students responsibility and letting them discover on their own, does not mean that as educators we can sit back and wait until the learning happens. That is why, as educators, we have the responsibility to give students the tools to integrate reflection into their professional as well as their personal life. At the start of their studies, we can personally guide

students in this process but as they progress, we need to provide them the tools and the facilitation that is needed to independently apply reflection in their own life. The reflection card made in this study helps students to structure their reflection and gives them a framework to learn from experiences while it simultaneously provides them the opportunity to explore the outdoors on their own.

Limitations of the study

Despite the value of the reflection card, this study has also some limitations. First, only two students were interviewed to evaluate the card in practice. Only one student used the card, the other one did not use the card because she did not facilitate a reflection during her trip. To investigate the effects of the reflection card into more detail it would be useful to interview more students about their experiences and their viewpoint on the card. In addition, a third design cycle could be made to adjust the card even more to the preferences of the target group.

Secondly, during the research it became clear that students have different needs regarding to reflection. It seems that students who do not have a lot of experience with reflection or having a hard time to structure their own reflective activities benefit from the reflection card that was designed in this study. However, students as well as teachers also indicated that a card that helps students to organize and facilitate reflective sessions would be useful. Within this research it was chosen to focus on personal reflection, as this is the basis and first start for students who want to get involved in reflection. However, it is recommendable to explore the need and possibilities for a card that focuses on facilitating a reflection as this is something relevant for students as well as outdoor educators in general.

Thirdly, within the study a lot of valuable information was gained during informal conversations with teachers, educational specialists, a psychomotor therapist, and students. However, not all these conversations were documented which made it hard to use those insights in the research. In the future, it is beneficial to document those conversations to be able to analyse the outcomes and use it as valuable data for the study.

Finally, the reflection card was implemented in my own school. Due to Covid-19 restrictions it was not possible to implement the card in another Outdoor Education Institute. However, testing the product in more schools would have been beneficial. This would have improved the reflection because it would have made the product more suitable for students in general instead

of students of the Humak UAS in specific. In addition, the data will be more reliable because students might give socially desirable answers because they want to favour the researcher.

Recommendations

Based on the conclusion the following recommendations can be made:

- **Present the reflection card together with a workshop and a manual.**
  The reflection card should be presented in combination with a workshop and a manual to make sure learners understand the principles of reflection and the card itself. The manual should be created and implemented together with the card and the workshop. Appendix 2 gives a rough idea of this manual, but this should be developed more carefully.

- **Test the reflection card among more students and Outdoor Education schools.**
  To make the card more suitable for students in general the card should be evaluated among more students from different schools. As a result, the card will not only be suited for Humak UAS but also matches the need of students at different universities.

- **Design an instructor card that is targeted towards facilitating a reflective session.**
  During the research it became clear that students do not only have a need for a self-reflection card but that there is also a need for a card that teaches how facilitate reflective group sessions. It would be useful to design and implement an instructor reflective card. Further research could focus on this project.

- **Re-evaluate phase 3 of the card**
  The research showed that phase 3 of the card is still unclear. This should be re-evaluated to match the needs of the target group and the reflective goals.

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Appendix 1

Interview schedule evaluation final version reflection card

Level 1: Overall feeling

- What do you think in general of the reflection card?
- Could you tell me the goal of this card?
- Phase 1, 2 and 4
- What is your opinion about the content of the card?
- What do you think is the biggest strengths and weaknesses of the card?
- What do you think of the design of the card?

Level 2: Learning:

- What does the card teach you?
- Did you already know this, or did you learned new skills, knowledge or attitude.
- Did the use of the card change your perspective on reflection?

Level 3: Behaviour:

- Did you use the card in practice?
- What were your experiences?
- What worked for you?
- Are there things you would like to see improved?
- Would you use it in the future, why or why not?
- What would be the target group of the card?

APPENDIX 2

Draft version – manual of the reflection card.

The following material was created to foster reflection on independent trips in the outdoors.

8.1.1 Pre-trip material

Assignment – reflection on independent trip.

For this assignment you need access to the website: https://www.ed.ac.uk/reflection/reflectors-toolkit *. It will help you to find an answer on the questions.*

1. Familiarize yourself with the concept reflection on action.
   Think how you could use this form of reflection to improve safety on your outdoor trip.

………………………………………………………………………………………………

2. Familiarize yourself with the concept reflection for self-awareness Think how this can be useful on your outdoor trip.

………………………………………………………………………………………………

3. What are factors that will foster or hinder reflection on your trip? Think for example of the lack of time or school materials. Note them down.

………………………………………………………………………………………………

4. Think how you can use reflection on action on your trip.
   a. What will be the use for your trip?
   b. When can it be used?
   c. What reflection model could you choose?
   d. What material or resources do you need to be able to use it on the trip?
   e. Is it personal or with interaction with others?

   ………………………………………………………………………………………

5. Think how you can use reflection for self-awareness on your trip.
   a. Do you want to use it? What will be the use for your trip?
   b. When can it be used?
   c. What reflection model could you choose?
   d. What material or resources do you need to be able to use it on the trip?
   e. Is it personal or with interaction with others?

HUMAK UNIVERSITY OF APPLIED SCIENCES

6. How could you reflect in a creative way that matches your own preferences?
Remember that the goal is to make sense of experiences and thoughts and to challenge your own view.

……………………………………………………………………………………………………

8.1.2 During the trip material

On the website https://www.ed.ac.uk/reflection/reflectors-toolkit you will find useful material and tools for reflection on action and reflection for self-awareness. You can use the one that I selected, or you can choose your own tools and methods.

A few tips:

- Reserve time for reflection.
- Be brave to let go and adjust if needed. The outdoors is unpredictable and therefore reflection is also not possible to plan exactly the way you want it. Use your imagination and the resources nature gives you.
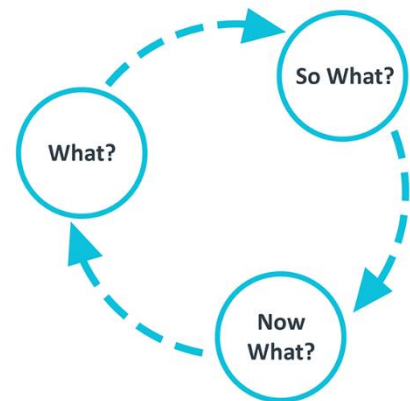
8.1.3 Reflection Experience

Tips:

- Have a strategy ready for reflection on action. Make sure the strategy is easy to use and all the participants of the trip know the strategy that is in use.
- Recognize experiences that need reflection (e.g. errors, difference in vision, unexpected events) and actively use reflection on experience to get a better understanding of the situation and things that could be improved for future.

8.1.4 Reflection on experience card:

- **'What?'** Describe the situation you want to learn from, describe the facts as well as your feelings.
- **'So What?'** Try to understand the situation. Question what knowledge you and others had in the situation, and what knowledge or theories that could help you make sense of the situation.
- **'Now what?'** Create an action plan for the future based on the previous questions

Be aware that there are more forms of reflection. Choose the one that suits you.

8.1.5 Reflection for self-awareness

There are many ways to reflect for more self-awareness. To help you we set-up an example retrieved from: https://www.ed.ac.uk/reflection/reflectors-toolkit

Analysing experiences

This approach works for finding both strengths and weaknesses, the only difference is the type of experience you look at. First, identify an experience that turned out/went really well (for strengths) or poorly (for weaknesses). This could be supporting a friend, or a teamwork experience that did not go as you hoped.

- Ask yourself what skills/strengths made you capable of succeeding or what weaknesses may have contributed to an unsuccessful experience.
- Ask yourself what else could have contributed, until you cannot find anymore.
- Repeat for as many experiences as you like.

In reality this method can be used to identify many implicit aspects of ourselves – the only difference is asking ourselves 'What [value/assumption/etc] may have contributed to the outcome of the situation or our actions?'

8.1.6 After the trip material

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