

THESIS

**A Handbook of Reflection for Young People
with Learning Difficulties**

Theory and Practice

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ABSTRACT

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Youth with learning differences have considerable difficulties in reflecting on what they learn and expressing their thoughts and feelings. This becomes evident when participating as an observer in outdoor activities for youth with learning differences, organized by Helsingin seudun erilaiset oppijat ry. (HERO, Different learners of the Helsinki region). The participants need substantial help in practicing reflection and developing their reflection skills. Therefore, a collection of systematic and theoretically supported reflection exercises was designed to promote the participants' social and emotional development. The goal was to integrate reflection exercises in the class and thus entuse the youth to make reflection a daily ritual.

The research consisted of a time of participatory observation aimed at gaining a better understanding of the target group and the setting in which the group activities take place. After that, an extensive study was made of the literature related to the theory of learning, with a particular focus on social and emotional learning, experiential and reflective learning, and the challenges of learning to reflect for youth with learning difficulties. Also empirical research was included. One paper appeared extremely relevant to this specific project and was therefore covered in detail in this thesis. Based on practical and theoretical findings, a systematic and progressive sequence of reflection exercises was designed and collected appropriate for the Kite course.

This thesis provides hands-on advice and exercises for instructors to help different learners learn and practice in-depth reflection. It also shows how instructors can motivate reflective learning and advance social and emotional development by intentionally serving as role models. Modeling reflection can help build lifelong reflection habits that support different learners' personal development.

The exercises in this thesis have not yet been implemented in HERO's courses due to organizational issues. When they have, instructors' interviews and participants' questionnaires will help adapt and develop these exercises and create new exercises based on the theoretical and empirical foundations provided in this thesis.

This handbook will undoubtedly benefit not only HERO's Kite course for different learners but instructors and teachers as well as participants and students, irrespective of age or learning difficulties, in a wide variety of indoor and outdoor settings.

Key words: reflection (cognitive processes), learning difficulties, metacognition, positive psychology, experiential learning, group dynamic.

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1 INTRODUCTION

1.1 Commissioner

The commissioner of my thesis is HERO (Helsingin seudun erilaiset oppijat ry.). This non-profit organization provides advocacy and support for 15 to 29-year-old youth with learning differences or social challenges in the Helsinki region. HERO defines learning differences quite widely, ranging from dyslexia and ADHD to mood disorders (Helsingin seudun erilaiset oppijat ry. 2023). Most of the youth at HERO are so-called NEET youth: Not in Employment, Education, or Training (Statistics Finland 2023).

HERO organizes training, events, and activities associated with learning differences and challenges. Weekly courses include math, English, writing, band, and dance. It also provides advice and guidance by phone.

HERO runs a three-month course called Kite, which stands for Kohti itsenäistä elämää (“Towards an independent life”) and is held every spring and autumn. The participants of the Kite course form the focus group for my thesis project.

1.2 Focus Group

Kite is attended by a fixed and closed group of no more than ten participants between 18 and 29, with two or three instructors. The course runs three days a week and lasts for twelve weeks. Kite focuses on strengthening social, study, and working life skills. The closed small group simulates a safe community where youth can practice and develop social and emotional skills. Frequent meetings help build social interaction and a sense of belonging. Because learning differences often come with social and emotional challenges, emphasis on supporting social and emotional development is essential in the Kite project. With the instructors’ intervention and guidance, Kite provides a safe environment that serves as a bridge toward independence.

1.3 Needs and Objectives

Kite comprises a variety of classroom and outdoor activities, including a three-day camp. Group formation, personal goal setting, one-to-one mentor–apprenticeship, brunch, and outdoor chilling provide an abundance of meaningful activities that help the youth learn more about themselves and empower them to own agency.

I participated in three Kite excursions as an observer. Spending time with the youth, I sensed a need to help the youth practice reflection and develop their reflection skills. During the sessions where group members were asked to share their feelings, they found it hard to reply to even a simple question like “How was your day today?” not to mention expressing any deeper feelings or thoughts. Usually, the answer was a plain “Good. Fine. Nothing special.” In a later chapter, we will uncover some of the reasons why.

When I proposed my reflection-focused thesis plan to HERO’s manager and instructors, it was agreed that including systematic and theoretically supported reflection exercises in the Kite course would provide additional benefit to the participants. In the reflection exercises, I also combine and integrate some exercises that Kite is currently using but have not yet been documented. The exercises help the youth practice reflection in a gradual and comprehensive way, which will undoubtedly support their social and emotional development.

Benefits

Reflection helps learners recognize and appreciate their thoughts and strengths. Expressing what they have learned is also a form of reflection, a secondary learning (Moon 2004, 80). Through different reflection practices, the youth learn to identify their own strengths and evaluate themselves fairly and kindly.

Instructors benefit from the reflection exercises because the exercises produce more accurate feedback on how the activities went and where and how to adjust and develop the activities. This helps instructors improve and develop the course.

Feedback from reflection exercises benefits my commissioner HERO, especially in their fundraising, by providing more accurate and comprehensive data for evaluating the overall course performance directly from the participants.

2 KNOWLEDGE BASE

2.1 The Learning Process

Over the past several decades, there has been a significant shift in pedagogical paradigms from a teacher-centered to a more student-focused approach. In traditional methods, the teacher was usually the primary source of knowledge dissemination, emphasizing rote memorization and passive learning. However, with the rise of constructivism in the 1960s and the increased understanding of the complexity of learning and different learning styles, the emphasis has gradually moved towards empowering students to actively participate in their learning process. (Scheurs & Dumbraveanu 2014).

The integration of digital technologies in education has also played a significant role in personalizing learning experiences, encouraging active acquisition and evaluation of information from online platforms, and radically transforming traditional teaching practices (Haleem, Javaid, Quadri & Suman 2022).

These shifts in pedagogical paradigm have also increased awareness of different learning styles that students prefer for absorbing, processing, understanding, and retaining new information or skills. Fleming (1995) distinguishes four fundamental learning modes, represented in his VARK model:

- Visual learning gives preference to the use of drawings, graphic illustrations, maps, and videos to internalize information.
- Auditory learning is based on listening and speaking or on hearing and repeating as a method for memorizing information.
- Reading/writing learning focuses on language and words, reading literature, and intense notetaking.
- Kinesthetic learning is based on touching and hands-on crafting, such as feeling objects, or on building, taking apart, and operating machines.

Learners may be strongly biased towards one particular mode or capable of accommodating several modes more or less equally. Individual learning styles depend on cognitive, emotional, environmental, and sociocultural factors such as ethnicity, culture, educational background, gender, geographical location, and socioeconomic status, as well as prior experience. Therefore, teachers need to account for the different learning modes in their pedagogic approach to provide

their students equal opportunities irrespective of their learning biases. This is especially crucial when working with so-called different learners, i.e., students with particular learning difficulties or social and emotional challenges.

Moon (2004, 14) points out the distinction between the actual learning process, i.e., the acquisition of new ideas and information, and the representation or expression of what has been learned. Representation can be simply a way of providing evidence that the learning process has been successful, like in an exam where the information is often merely retold as such. However, representation can also be a means of processing what has been learned. In this case, the learner practices reflection that sparks new ideas and information, promotes the internalization of knowledge, and deepens her understanding.

The learning process is not merely about accumulating knowledge and skills but about transforming conceptions, making the learner not only more knowledgeable but also “wiser”. This can only happen through reflection and including social and emotional dimensions of learning (Moon 2004, 17, 21).

2.2 Social and Emotional Learning

Social and emotional learning (SEL) can be defined as “the process through which all young people and adults acquire and apply the knowledge, skills, and attitudes to develop healthy identities, manage emotions, and achieve personal and collective goals, feel and show empathy for others, establish and maintain supportive relationships, and make responsible and caring decisions” (CASEL 2023). This learning paradigm emphasizes integrating socio-emotional skills alongside formal educational training, recognizing the inseparable interconnection of emotional well-being, healthy relationships, and professional success (Committee for Children 2023).

Social and emotional learning comprises five core competencies that promote intrapersonal, interpersonal, and decision-making skills. These competencies include self-awareness, self-management, social awareness, relationship skills, and responsible decision-making. Goleman (1995) coined the term “emotional intelligence (EQ)” to describe the internalization of these social and emotional competencies alongside the traditional acquisition and processing of knowledge. Implementing these competencies in educational settings provides students with tools that are crucial not only for academic achievement but also for facing the challenges of

daily life, thus contributing to both their personal and professional development (Positive Action 2023).

The SEL paradigm has been shown to increase student engagement and improve school performance. It also leads to other positive outcomes, such as decreased stress levels and a school environment favorable to learning and personal growth (CASEL 2023).

2.3 Experiential and Reflective Learning

Experiential and reflective learning differs from most other forms of learning in that they are not usually mediated by teachers, instructors, or teaching material. Experiential learning is generally based on direct experience and involves reflection. Students often have a deliberate intention to learn, and the active phase of the experiential learning process takes on the form of practicing, developing, or refining specific skills. Usually, there is also a feedback mechanism that effectively helps the students advance their knowledge or skills. (Moon 2004, 122). Experiential learning is potentially holistic in nature, taking the learner's whole person, including her social and emotional side, into account (Moon 2004, 125).

Meaningful discussion about reflection requires a more accurate definition or description of the term. The literature provides many different descriptions and concepts of reflection. Nguyen, Fernandez, Karsenti & Charlin (2014) list fifteen major authors and their definitions or models of reflection. The list covers a period from 1909 to 2009, during which social sciences and pedagogical paradigms have significantly changed. In 1909, Dewey defined reflection as “active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it, and the further conclusion to which it tends” (Dewey 1909, 6). In 2009, Sandars rephrased the definition as follows: “Reflection is a metacognitive process that occurs before, during, and after situations with the purpose of developing a greater understanding of both the self and the situation so that future encounters with the situation are informed from previous encounters” (Sandars 2009). Since this research leans heavily on the work of Moon (2004), it is appropriate to also include her definition: “Reflection is a form of mental processing – like a form of thinking – that we may use to fulfill a purpose or to achieve some anticipated outcome or we may simply ‘be reflective’ and then an outcome can be unexpected. Reflection is applied to relatively complicated, ill-structured ideas for which there is not an obvious solution and is largely based on the further processing of knowledge and understanding that we already possess” (Moon 2004, 82).

Reflective learning occurs when the learning substance is not easy and self-evident and cannot be absorbed straightforwardly, e.g., by rote memorization or practice. Special challenges arise when there is no simple connection between learning material and the learner's prior experience or when the learner wants to problematize the material (Moon 2004, 123).

Kolb (1984) visualizes the relationship between experiential and reflective learning using an experiential learning cycle. In this circular concept, concrete experience prompts reflective observation. This, in turn, results in abstract conceptualization, based on which the learner is driven to continue active experimentation, creating new concrete experiences. Moon (2004, 126–128) confirms the important role of reflection in experiential learning but challenges Kolbe's view and rearranges the phases of the learning cycle, reversing the order of abstract conceptualization and reflection. She concludes that almost all experiential learning is reflective learning, except for those experiences that are well-structured and represent no learning challenge at all (Moon 2004, 129).

Reflection can happen on different levels that form a hierarchical model ranging from superficial, non-reflective description to deep and critical reflection. The deeper the level of reflection, the more the learner will tend to revise her meaning structures and experience personal transformation in the process. Deep levels of reflection are characterized by a critical orientation towards existing interpretations and perspectives, including the learner's own (Moon 2004, 96).

Hatton and Smith introduced a four-tier framework for the different levels of reflection.

- Descriptive writing is the shallowest level, where the writing does not exhibit any evidence that reflection actually occurs. It just describes events but does nothing more than that. In the experiential learning framework, this is just a recounting of what happened: actions and observations.
- Descriptive reflection also focuses on description but contains additional levels of interpretation and new perspectives that differ from the learner's own before the experience or acquaintance with the learning material.
- Dialogic reflection is analytic in nature and embraces the existence of different qualities of judgment and alternative interpretations. The learner takes distance from the events and actions and enters into a dialogue with herself, exploring the discourse of events and actions.

- Critical reflection “demonstrates an awareness that actions and events are not only located within and explicable by multiple perspectives but are located in and influenced by multiple historical and socio-political contexts.” (Moon 2004, 97).

One of the objectives of practicing reflective learning is to gradually increase the quality and depth of reflection. This cannot happen without the learner’s growing awareness of her own reflection process. Growing awareness, in turn, requires metacognition, i.e., intentional thinking about how she thinks and learns. (Moon 2004, 97). Metacognition often forms a serious obstacle for people with learning differences and social and emotional challenges.

2.4 Learning Difficulties and Learning Differences

Learning difficulties are “different ways of learning, organizing and processing information. Learning difficulties may be classified into linguistic difficulties, perception problems, problems with attention deficiency and executive function, and motor difficulties. (– –) Learning difficulties may also be associated with cognitive and psycho-social problems.” (Aalto University Wiki 2017). Frequently encountered learning difficulties are dyslexia, attention deficit hyperactivity disorder (ADHD), dyspraxia, and dyscalculia. Also mood disorders can be included, such as depression, dysthymia, bipolar disorder, and substance-induced mood disorders (Johns Hopkins Medicine 2023).

In an attempt to remove the negative stigma associated with the term “difficult”, learning difficulties are increasingly referred to as learning differences and learners with learning difficulties as different learners. This shift in terminology is not without problems. All learners are different and unique. Fleming’s VARK model of learning differences represents four different modes of learning that are considered normal or mainstream and that do not indicate any learning problems that require special attention from teachers and instructors (Fleming 1995). Also students with learning difficulties may be inclined towards any of the four “normal” learning modes of the VARK model. In this thesis, the terms learning difficulties and learning differences are used interchangeably.

On the other end of the scale, learning difficulties border on learning disabilities. A learning disability is a “reduced intellectual ability and difficulty with everyday activities – for example, household tasks, socializing or managing money – which affects someone for their whole life. People with a learning disability tend to take longer to learn. They may need support to develop new skills, understand complicated information, and interact with others.” (Mencap 2023).

Learning difficulties are often associated with social and emotional problems. Typical problems encountered in empirical research are thinking problems, poor concentration, attention deficit, low activity, lack of interaction, lack of self-confidence, depreciation of self-value, sadness, emotional confusion and distractions, fidgetiness, aggression, excess activity consumption, non-interaction, hyperactivity delinquency, phobia, sleep for short periods, and continuing changes in sitting posture. Different symptoms may correlate with different learning disorders, and learners can have a combination of various learning disorders (Hassan 2015).

2.5 Reflective Learning and Learning to Reflect with Learning Difficulties

Moon (2004, 85–86) identifies four ways reflection is involved in learning.

1. Reflection is involved when the learner takes a deep approach, seeking to understand the meaning of new learning material in the context of what she already knows. This implies progressive reflection from the stage of giving meaning to that of transformation.
2. Reflection is involved in the meaningful representation of new knowledge, e.g., in writing or speaking because ideas have to be modified and reformulated in order to represent them. Typical examples are writing an essay or giving a classroom presentation.
3. Reflection is involved when existing knowledge or ideas are reconsidered in the light of other knowledge, especially if initially that knowledge was not very meaningful. In combination, these knowledge and ideas take on a deeper meaning. Much of what we learn in school, for example, history or geography, remains meaningless to us until we combine that knowledge with other meaningful knowledge, for example, by traveling abroad or reading a historical novel.
4. Reflection is involved in generating new and meaningful ideas that do not seem to be connected to our prior knowledge, though they are undeniably based on what we know. This is reflection at its best. Daydreaming, for example, is a spontaneous, unfocused, and unintended way of reflection that often leads to meaningful and sometimes even brilliant insights. We only need to think of Isaac Newton under the apple tree to get the point.

It is evident, then, that reflection can be learned, but different learners may encounter significant obstacles when trying to start or develop their own reflection. Much academic and clinical research has been done on reflection and reflective learning in general. However, it is hard to find literature that deals specifically with the challenges that different learners face.

Powell & Makin (1994) report an interesting empirical study among 12 and 13-year-old pupils with moderate learning difficulties. The experiment was conducted in a classroom of ten pupils, all of whom had consistently low academic performance, and some also had a history of disruptive behavior. Without ignoring the formal math curriculum, classroom activities were designed to allow pupils to learn within the range of their own learning potential. Attention was also paid to life skills and preparation for successful integration into society. The attitude of the teachers was typically caring and accepting. The setting of the experiment has many similarities to that of HERO's Kite course, with the exception that the group was significantly younger than the Kite participants, mathematics is not very experiential, and there were no outdoor activities.

The intention of the experiment was to focus the pupils' attention on their own thinking and learning processes within the context of mathematics activities. Preference was given to the pupils' human needs over the demands of the subject matter. Through self-reporting and self-appraisal, attempts were made to increase the pupils' awareness of and, subsequently, control over their thought processes.

The experiment was conducted in a three-stage classroom session. The first stage was an opening meeting with the pupils sitting in a circle. The pupils were encouraged to talk about what they had done earlier in class or something of mathematical interest that had caught their attention elsewhere, for example, on their way to school or while figuring out discounts in the shop. While, at first, the seating arrangement felt embarrassing to many pupils, their confidence and ease grew quickly. This meeting was followed by organized math learning, where teachers gave assistance to individual pupils whenever perceived necessary.

In the second stage, the pupils would give a spoken description of their work to the teacher in private, not to the whole classroom, because the pupils needed a safe environment where mistakes or underperformance would not feel shameful. The teacher would feed the descriptions into a computer, giving the pupils the opportunity to have a second look at them later, rephrase them, and thus gain greater awareness of their own use of language for expression, organization, and re-organization. The third stage was a fifteen-minute session back in the circle for a structured time of self-appraisal. The areas of self-appraisal were:

- Work: How the task was organized, where it was done, and how a possible partner had been of help.
- Problems: How problems were dealt with, either alone, with the help of another pupil, or by asking the teacher to assist.

- Others: How the pupils got along with others, did they help each other, or were there arguments.
- Feelings: How the pupils felt about their work, whether the session was good, and how good it was.

In addition, the pupils were asked to rate themselves on a five-point scale and share it with the others. The teacher would consistently give only positive and supportive feedback while still trying to remain honest. The pupils soon learned to imitate this pattern.

Over the course of the experiment, the verbal modes in the descriptions and the group discussions gradually developed from operational and expositional to hypothetical and experiential. The pupils also learned to use visual representations to enhance their expression. When working in pairs, partners were encouraged to present their self-appraisal together, making it easier to get to the meaning by dialogue, modification, and elaboration. Pupils became increasingly capable of making independent decisions, became more aware of their own learning, and felt more in control. The teacher provided a model of reflection, for example, by taking pauses to think before saying something and by using reflection-related hypothetical and experiential modes of verbal interaction. Pupils quickly adopted the teacher's model.

The experiment was successful in improving academic performance and increasing the pupils' awareness of their own abilities related to tasks and their willingness to engage with the teacher. It looks possible to identify particular ways of teaching that stimulate and empower pupils to reflect on tasks and their own performances. In the opening sessions, pupils were given a sense of participation in the actual learning process. Pupils with moderate learning difficulties gained increasing control of their own learning through reflection on their own ways of thinking and learning. In addition, their active inclusion in spoken descriptions and self-appraisals gave priority and validity to reflection as a part of learning.

Clearly, the effectiveness of particular teaching and learning episodes in promoting reflection in children with learning difficulties and behavioral challenges is affected by the social and emotional context of the classroom. The teacher must create a climate that supports reflection, and the setting and rules must be clearly communicated and followed through.

Teachers communicate with different learners primarily through their own examples. In addition to reflection, also the role of active listener was perceived and gradually imitated by the pupils.

3 MEASURES

3.1. Background

Initially, the plan was to design a set of reflection exercises for HERO's Kite course and implement them as part of their regular classes, with some more intensive reflection sessions during the three-day camp. After that, I would conduct questionnaires for the participants and interviews with the instructors to evaluate the effectiveness of the exercises. However, in the early stages of my work, my commissioner HERO encountered unexpected organizational challenges so that implementing the practical exercises became impossible, and so did the questionnaires and interviews.

Because the need for appropriate reflection exercises was still there, I agreed with HERO to focus on designing reflection exercises for youth with learning differences and collect them in the form of a handbook. This could greatly benefit future Kite courses and other HERO activities for years to come.

For the reasons above, my research project is entirely qualitative in nature. It includes three main stages: participatory observation, literature research, and collecting the reflection exercise handbook.

3.2. Participatory Observation

The first stage of my research consisted of attending three half-day outdoor classes as an observer. My goal was to form a comprehensive and consistent picture of the Kite course, its content, methods, instructors, and participants. In particular, I wanted to observe what kind of learning differences and behavioral challenges were represented in the group and how these affected group dynamics and learning patterns. For this reason, I opted for participatory observation; in other words, the participants were aware of my presence and role as a participant and observer, but I did not interact with the group or work with the instructors. After each session, I discussed with the senior instructors to find out more detailed information about the group, what the instructors were trying to achieve, why they used certain methods, and how they experienced the success of the training. These discussions confirmed or corrected my personal observations and helped me gain a deeper understanding of the challenges of working with different learners.

Early in the observation phase, it became evident that course participants scored poorly on feedback even when the outdoor activities were successful. This posed a challenge for the instructors, who were committed to developing and improving the Kite project. They had to rely almost solely on their own expertise and one another's professional evaluation without the concrete feedback that provided the participants' perspectives.

It also became clear that poor feedback was due, to a large extent, to poor reflection capacity. There is no doubt that youth with learning differences can learn to reflect, even on deeper levels, but learning to reflect requires different methods compared to average learners. This observation was confirmed by the senior instructors. An experiment from a previous season using a reflection journal had a positive effect on the youth (Raaska 2022). The Kite course has also offered other reflective activities in the past, but none of them has been documented so far.

My observations and discussions with the instructors, as well as participation in two Kite staff meetings, led to the shared conclusion that a comprehensive, diverse, and well-documented set of reflection exercises for Kite participants would serve HERO best. When it became evident that there would be no opportunity to actually test-run those exercises in the autumn of 2023, we opted for a written handbook that could be used by Kite instructors in the future. Obviously, the idea of interviewing participants after going through the reflection exercises had to be abandoned for the same reason.

3.3. Literature Research

A significant part of my work went into looking for relevant theoretical and empirical research results in the literature. I needed to dive deeper into the theoretical framework of learning processes and reflection. In particular, I needed to study the fields of experiential and reflective learning since the Kite course is heavily focused on "learning by doing" and engaging in activities in order to learn new knowledge and skills. Moon (2004) provided a solid basis for the theory and practice of reflective and experiential learning in her book "A Handbook of Reflective and Experiential Learning".

The specialized field of social and emotional learning (SEL) was also one of my focus areas because learning difficulties are generally associated with social and emotional learning difficulties and behavioral challenges. A third area for my theoretical framework was the ill-defined field of learning difficulties and different learners. In the vast literature on the subject, this field

is approached from medical, social, and pedagogical perspectives, but I found relatively few relevant references for my thesis.

The most relevant subject matter to look for in the literature was that of reflective learning and learning to reflect for students with learning difficulties. This was like looking for a needle in a haystack. But in the end, an empirical research paper emerged (Powell & Makin 1994) that proved to be valuable for my own project.

I also searched for existing reflection exercises on the Internet and found numerous. The vast majority, however, is unsuitable for youth with learning differences and nearly impossible to adjust for this target group.

3.4. Collecting the Reflection Exercise Handbook

The last phase of my work was to design a systematic and progressive sequence of reflection exercises to be included in the handbook. As my raw material, I collected reflection exercises that had been in use by HERO previously, but that had remained undocumented and needed refinement, exercises that I had run in the course of my life and studies, suitable or at least adaptable exercises that I found in the literature and online, and exercises that I designed all by myself. The most important part of this phase was evaluating, adjusting, and improving the exercises for use in the Kite course, systemizing and accurately documenting exercises, and providing a progressive structure that leads from shallow, non-reflective description to ever deeper levels of reflection. In Chapter 4, I will explain the principles and criteria that I utilized to select, develop, and adapt the reflection exercises and give the exercises in the form and order in which they belong in the handbook.

4 RESULTS

In this chapter, I present the final product of this research. It is a handbook of reflection principles and practical exercises for instructors working with youth with learning difficulties. It is meant primarily for HERO's Kite course but can be applied in many other settings, such as classrooms in primary and secondary education.

As mentioned in Chapter 2, reflection can take place on different depth levels. In this chapter, I first list general and specific reflection principles that instructors should be aware of when planning reflection exercises, followed by concrete reflection exercises arranged by depth from pre-reflection preparation to deeper reflection exercises. The first few exercises are described concisely and in general terms without much detail; their idea is to offer merely ideas and concepts because they are not complex or difficult to implement. The chapter ends with three comprehensive reflection exercises described in detail: Reflection Journal, Personal Project, and Mirror Reflection. The descriptions are hands-on and sufficiently detailed that the instructors can effortlessly implement them.

These exercises may serve as a source of inspiration for instructors to develop and create new ones based on the principles and examples in this handbook. They can also be adjusted for different groups with specific learning differences and social challenges. Every Kite course has participants with quite different learning challenges. Therefore, the exercises may need to be modified for each new group.

4.1 Reflection Principles for Youth with Learning Difficulties

Reflection Principles

The first principle to adhere to when considering reflection exercises is to always ask the question: Why? Why do you want to implement this specific reflection exercise? What are the purposes and goals of this exercise?

There are several important indications to decide whether a reflection exercise will work in a group or not and whether it will produce authentic reflection or not. The instructor should pay attention to the group dynamic, the trust level in the group, possible vulnerability issues, positive psychology, and the use of purposeful questions: A good question generally triggers good reflection, while a vague question often produces superficial replies.

Principles for youth with learning difficulties

According to my observation during excursions with Kite youth and my interviews with HERO's senior instructors, Kite's youth show different social patterns of behavior than the average youth: They are more silent, shy, and passive; they tend not to express themselves either because of personal traits, low self-esteem, limited vocabulary, or lack of reflection habits. Therefore, instructors need to consider the concerns below when implementing the reflection exercises.

- Different learners are inclined to diverse ways of reflection, just as we all have preferred and most suitable ways of learning.
- Writing can be a challenge for youth with learning difficulties. Other forms of expression than writing, such as painting, drawing, and poking, are welcome as long as the author is able to read/interpret his own painting/drawing/poking (Raaska 2022).
- Reflection exercises should start from neutral, non-sensitive, and non-personal ones; in other words, start with simple and short questions and then gradually progress from simple to complex and from shallow to deep.
- Keep the reflection questions straightforward and neat, preferably on paper rather than in digital form. Don't try to fire thousands of questions. With good reflective questions, you just need one or two.
- Instructors are to be models in activities, including reflection exercises. By sharing the reflection as a demonstration, the youth can imitate. Remember to acknowledge their sharing regardless of the quality of reflection so they are encouraged.
- Instant positive feedback from the instructor is vital to create an upward cycle: (instructor's) feedback and (learner's) reflection. Positive feedback encourages more reflection. Feedback needs to be instant because the youth tend to forget what they have done the day before.
- Arouse an appetite for reflection: Choose a suitable reflection exercise that is easily implemented and do the exercise regularly until it becomes a routine or a ritual.
- It is essential to engage in reflection that can create a long-term effect. Reflection exercises such as Reflection Journal and Personal Project introduced below suit this purpose.

- Encourage the youth to participate in planning activities as much as possible since programming activities will emphasize their social interaction and build self-reflection capacity. In addition, it is fun. But also remember to pay attention to the social stress that can build up in the group.
- Bring out the youth's potential to shine. "Despite all these challenges, this youth has an enormous number of skills and strengths that they bring in when they join a course. These qualities are usually hidden because of the contradictions the participants might experience between themselves and the surrounding external structures." (Raaska 2022, 8).

4.2 Pre-reflection Stage

Naming Emotions

Reflection often involves different levels of emotions. Assuming that the youth may not be used to recognizing their emotions, naming emotions is a meaningful first step in preparing for reflection.

Label and name the emotions. This can be done simply using ready-made pictures or cards describing the emotions. A more advanced method is to start a discussion based on a purposeful story, movie, or film clip and discuss the characters' possible emotions. It will enrich the content of emotions, and the participant may recognize and identify with some of the emotions in the characters.

Sharing Feelings

"Fiiliskierros" (sharing feelings) is a ritual currently used in the Kite course. Everyone, instructors included, expresses her feelings at the start and the end of the day. It is important to acknowledge that it is okay to feel bad. The instructor should accept that and respond to such a message neutrally and without judgment. Suppose the instructor has had a bad day. In that case, he can also express that as a demonstration and encouragement to the group to be authentic.

The duration is flexible. It can be as simple and generic as: "How do you feel? How was the day?" or expanded to cover a specific activity of that day: "What was your most significant experience in this activity? How would you do things differently if you are unhappy with the result?"

Five Senses Communicating

Our communication channels coincide with our senses of sound, sight, smell, taste, and touch. People are accustomed to conveying verbal messages (sound and sight) but less confident with non-verbal (smell, taste, and touch). Encouraging the participants to practice non-verbal communication, such as hugging a tree, focusing on the breeze, or smelling the grass, can broaden our sensations and enrich our reflection.

4.3 Reflection Exercises

Individual Coaching (Mentor–apprenticeship)

Many educational methods utilize a mentor–apprentice relationship to help students set individual goals and offer first-hand help. It is also used in Kite. Once sufficient trust is built, the mentor can assist the student in setting personal goals and provide support along the way. In the context of the Kite course, the importance of a mentor whom the participant can connect with is undeniable. The instructor can offer specific and concrete help according to the participant’s situation and needs. Such a strong relationship also intensifies the participant’s sense of belonging and her experience of solid support.

Reflective Questioning

Reflective questioning is a technique to encourage the learner to explore her own thinking. The instructor or a fellow student prepares and asks questions intended to give the respondent a chance to explore her knowledge, skills, experiences, attitudes, and values. The question should not direct her to an answer or conclusion implied or pre-determined by the questioner. For questioning to be genuinely reflective, the questioner must respect the respondent’s answers and opinions and avoid judging her or trying to manipulate her thoughts. (Lee & Barnett 1994, 17)

Three W’s: what, so what, now what

Driscoll's (1994) model of reflection, integrated with Kolb's learning cycle, proceeds in three steps, from reflective observation to abstract conceptualization to active experimentation. Starting from the concrete experience or feeling, the first trigger question “What?” asks to accurately describe the concrete experience, requiring reflective observation. The second trigger question “So what?” invites us to analyze the event and how it affected the respondent’s feelings or how she reacted. This requires some degree of abstract conceptualization. The third trigger question

“Now what?” calls for proposals for further actions and active experimentation. (Nielsen, Bal-lantyne, Murad & Fournier 2022)

4.4 Exercise: Reflection Journal

Goal: reflection becomes a ritual

The goal of using a reflection journal is to turn reflection into a routine or ritual for daily life even after the course has ended. The exercise has a very low threshold and cost factor since it only requires a notebook and pen or pencil. In this exercise, I list different entries to trigger reflection. The learners practice constant reflection in class regularly.

History of journaling in Kite

Journaling has been applied in the Kite course and has received positive feedback (Raaska 2022). The youth receive notebooks, and they can write, draw, paint, and poke on the notebook as long as they will be able to interpret their notes later on for their own sake. The notebook is personal and confidential, and it need not be shared unless the author wants to. This warrants a safe space for authentic reflection but also implies that the journal itself cannot be used for evaluating purposes. In its present form, journaling is rather basic, but there is a lot of potential to expand and develop it into a diverse reflective journaling process.

Preparation

Each participant has her own journal book, preferably the loose-leaf type, so pages can be removed or added later to change the order. The journal is personal and for the author’s eyes only because reflection will not be authentic when the author knows others will view or evaluate the result. Another reason why the instructor should not read the journal is that he may not be able to read or interpret it rightly since the journal could have drawings, paintings, or poking instead of, or in addition to, written text, depending on the participant’s learning differences and preferences.

Nevertheless, sharing the content orally or visually is welcome and voluntary and should be encouraged because representation is a further step in the learning process that enables further reflection.

Process

Name the journal together. Call it, for example, a reflection journal, learning diary, reflective notebook, or My diary.

Color or draw the cover of the journal to make it personal and unique.

There are various ways in which the participants can be stimulated to use their journals. Below, I list six effective and very different ways that provide variation.

1. Free writing: Write or draw for 5 or 10 minutes anything that pops up in your head without caring about grammar, spelling, or logic. Just allow your thoughts to flow.
2. Questions following some specific activities: What brought you the most fun today? What did you like most about today's activity?
3. Start with a pre-made sentence, a story, a poem, a picture, or a film clip. It is much easier to continue a sentence or a story than to start with a blank page. For example:
 - A story describing "transition": A reporter interviewed an astronaut and asked: "What's the most difficult thing to get used to on Earth after coming back from space?" The astronaut replied: "I still feel confused every time I see the coffee mug break when I drop it in the air." This is a very concrete story describing the abstract concept of transition. After telling the story, ask the youth: Reflect on your experiences and write or draw one meaningful transition moment: What was it, and how did it go? As a student in outdoor education, my transition experience was between writing academic essays and practicing outdoor techniques. Moving between these two static and dynamic study modes was not easy and could, at times, be quite frustrating. But after naming the transition, I was relieved to know that it is normal and acceptable, allowing me to be a little bit unstable in a transition period.
 - A slogan: "Give me coffee to do the things I can, and wine for those I cannot change." This example can be used to encourage the youth to think about the things they can work on now, what are those they cannot change and would be good to put aside for the time being, and what are the things somewhere in between that they could solve with some help. The instructor may give better help when the youth are able to identify their need.
 - A film clip from DeGeneres' (2013) stand-up show: A good video clip can say much more than a thousand words. It relaxes the learning tension and produces a refreshing new way of learning. The example here is DeGeneres' stand-up show, full of body gestures and rich facial expressions that are easy to understand. Her humorous sarcasm

easily prompts the audience to reflect on their own issues, look at their own experiences from a different point of view, and see that others are also suffering, and we are not alone.

For instance, watch the show between 2:30-4:05 and discuss about it. Here DeGeneres makes fun of herself for being lesbian. Her whole career shut down when she made her sexual orientation public, and she suffered dramatically from public criticism. After many years, when she was accepted by the show business, the first thing she did was make fun of herself. The reflection here is not about gender identity but about accepting who I am: Can I accept myself with “defects”, being different from others? Do I accept who I am? Is it okay to be myself under the premise of not hurting others? In 4:20-7:40 and 56:20-58:20, the show talks about procrastination. At the end of the show, DeGeneres said, “Procrastinate now! Don’t put it off.” We laugh at the contradictory message. It resonates with us. We also start to think of our own procrastination and direct our time to meaningful things.

4. Imagine writing (or drawing) a letter to someone meaningful to you. It can be a dear friend, a sibling, a teacher, or someone you greatly admire. The topics you could write about: Tell the person about how you are now, what happened over the past three months, what was the most cheerful or sad situation during the past year, what is your current situation, or what goals you set for the new year.
5. Write a letter to your future self five years from now or to your past self at age fifteen. What would you like to say to yourself?
6. Deeper reflections on developing metacognitive abilities. Imagine relevant others (e.g., your fellow learners or tutor) writing a letter to you or imagine how the others think about what just happened. It helps the learner look at the world from others’ points of view and realize that people may hold different opinions and that is okay.

Timing for this exercise: It is recommended to introduce the reflection journal as soon as the Kite course starts, so there will be enough time to turn journaling into a ritual or habit in life.

Reflection stage/depth: The intention of reflection journaling is to gradually deepen the level of reflection as the learner proceeds through the various stages above. It should be remembered that the instructors cannot dictate or control the depth of reflection. Some exercises may raise associations with a previous experience and trigger strong emotions, thus generating a deeper level of reflection.

Note: Be aware that emotion is a double-edged sword. It may lead to deeper reflection but also bring to the surface such strong emotions that only a therapist can deal with appropriately.

4.5 Exercise: Personal Project

Goal

The goal of the Personal Project exercise is to develop agency. Agency is “the capability of individuals to make choices and to act on those choices in ways that make a difference in their lives” (Martin 2004). By asking the learners to come up with a 25-hour project of their own liking, they need to figure out what really interests them, plan and think about the scope, the process, and also what and how to present it at the end session.

Learning

This exercise transfers the learning responsibility from the instructor into the learner’s hands, evoking active learning. The learner takes the initiative of learning and reflecting on her life. The instructor’s role in the learning process becomes secondary, but he is there to facilitate and support her.

This exercise helps the learners think intensely to figure out what they want from life. They don’t have to make big dreams come true; on the contrary, the personal project should have a low threshold because they are the ones to execute the plan. The whole process requires constant reflection.

Several negative emotions may be triggered by obstacles encountered during the execution of the project or by the need to present the project in public. One is the belief that “I cannot do it.” or “I do not know what to do.” Overcoming emotional barriers and accomplishing the personal project can stimulate positive psychology with feelings of fulfillment and victory and a firm belief: “I can do it.” It can set in motion a continuing process of creating and realizing countless personal projects, big or small, initiated and designed by themselves.

Process

Ask the learner to set up a learning goal – to pick one thing that she is willing to spend at least 25 hours on. The learner needs to figure out what interests her and to think about what to change in her life, add, or take away.

An opening session: Deciding a goal for the project can be challenging. The learners may need help figuring out their goals. There can be an open discussion where they can voluntarily share their goals. It is good to start with brainstorming and give a few creative examples such as: “I want to be always on time.”; “I want to play a certain piece of music on my instrument”; “I want to form a habit of jogging.”. The goals can also be broad: “I want to be a better football player.”; “I want to quit smoking.”; “I want to be a more caring person.”

When the learners have set their goals, ask them to think about why this goal matters and their relationship with it.

A closing session: During this session, there should be an open discussion to encourage interaction and further reflection. The youth are encouraged to record the reflection in their learning journal. Instructors guide the youth to look back and review the whole process: how the goal was set in the beginning; how the execution went; how they overcame the obstacles, stayed with or needed to change the original plan; what happened on an emotional level during the whole process; what they did well with respect to this goal; what could be improved next time; what could be a next goal to set themselves?

Timing for this exercise: The best time is one or two weeks after the Kite course starts. This will give the youth enough time to think about their goal and for their ideas to be fermented.

Reflection stage/depth: This exercise may help the learners set goals in the future once they have learned and experienced how to do it. This exercise can evoke reflection on a dialogic level in every step of the project because it can involve emotionally reflective learning.

4.6 Exercise: Mirror Reflection

Goal

Human neural networks tend to search for what has been done wrong due to our long history of evolution in our struggle to survive. This exercise applies positive psychology by asking questions that can bring only positive answers, first by the participant herself and, secondly, reinforced and extended by the other participants and instructors.

Preparation

Make a circle, preferably in an outdoor environment, after an activity. It is good for the participants to stand in a circle because it allows eye contact and causes less stress than sitting. An

outdoor environment creates an easy and light atmosphere, but any place will do. The instructor stands in the middle of the circle.

The instructors' observation during the activity is important because they might need to give feedback accordingly. Instructors are ready with one or two sensible questions that “force” the participant to reflect only positively and gain or reinforce a healthy and fair self-image.

Process

Round one: the instructor asks the question: “What do you think you did well at this task (the specific activity just finished)?” and everyone answers in turn. The participant is forced to recall what she has done and think about her positive sides (positive psychology); saying it out loud reinforces her belief in herself. If the participant cannot think of anything positive, the instructor helps her recognize the positives.

Round two: the instructor names the participants one by one, and the others voluntarily tell one positive attribute of the person. It may be helpful to suggest some questions like: “What did the person do well in that activity?” “What do you appreciate about the person in that activity?” “Anything you want to tell the person?” Questions can be opened up somewhat so the participants can decide which makes more sense. The questions should not be overly restricted. Repeating or rephrasing the question also helps understand the core of the question better.

When there is more than one instructor, the other instructors stand in the circle, participating in the whole process as a participant, serving as a model, and showing engagement. And when no one takes the initiative to say something about the appointed person, it is time for the instructor to jump in.

It could be difficult for some participants to reflect positively. Here, the instructor can give specific positive feedback to help the participant reflect positively through his observation during the activity.

Go towards deeper questions to bring out more aspects and reflection, depending on the participants and the circumstances. Remind the participants that it is voluntary, and they decide what to share or not to share at all.

Timing for this exercise: The best time is after a task or activity has been accomplished where the participants had to overcome some challenge. The length of the exercise is flexible, as is the choice of space and scale.

Reflection stage/depth: It is more about positive psychology. The reflection level is descriptive.

5 CONCLUSION

This handbook demonstrates how to help different learners reflect with depth.

Outdoor education brings to mind images of climbing, kayaking, hiking, etc. The students learn to get acquainted with techniques as well as soft skills such as leadership, self-management, and critical thinking. Regardless of whether the learning is about hard or soft skills, without reflection, the learning process cannot really progress, improving skills is difficult, and outdoor education is reduced to mere outdoor activities, staying on the level of an experience without a fundamental transfer of knowledge. However, in practice, reflection is often a minor part of outdoor education. It is usually an oral sharing at the end of an excursion or a requirement for a written assignment. This seems to communicate the misconception that learners do not need to learn how to reflect because the intuition to reflect is in our blood.

Learning journals have become a standard tool in higher education for reflection purposes to improve learning. Learners benefit from writing their thoughts down because writing itself is an efficient way of sorting out one's thoughts and, therefore, a secondary resource of reflection. However, when the learners are not academically inclined and not used to expressing their thoughts in writing or have learning difficulties like dyslexia or ADHD, they can hardly benefit from writing.

Therefore, it is important for HERO's clients to have a series of reflection exercises that do not involve writing. Due to HERO's limited NGO budget, it is financially impossible to organize many exciting outdoor activities and excursions. However, even with fewer outdoor elements and without writing exercises, this handbook demonstrates a way to help youth with learning difficulties reflect with depth. These reflection exercises can empower them to apply deep reflection in daily life.

Instructors as role models in practicing reflection

In virtually every educational setting, teachers and instructors have an important responsibility to serve as role models for their students. The importance of the role model needs to be emphasized in reflection practices: Are the instructors familiar with reflection? Have they had the habit of reflection already? Are they able to go deep reflection on special occasions? We cannot assume that an instructor naturally understands reflection and is a good reflection practitioner.

Powell & Makin's research (1994) shows how teachers affect the students' reflection performance simply by practicing reflection in and with the group in a demonstrative way. For example, when the teacher takes thinking pauses before speaking or answering questions, students are reminded of the importance of reflection and are therefore prone to follow his example. This stimulates their own reflection process and helps them form a reflection habit. The example also gives permission not to speak or act immediately when the student needs more time.

The same research shows that when the teachers consistently gave positive and constructive feedback honestly and to the point, the students imitated their behavioral pattern, giving only positive feedback to their fellows. It shows how positive feedback stimulates learning, helps overcome social constraints, and is easily replicated by the group.

Therefore, it is essential that instructors practice deep reflection and develop their reflection skills. This handbook is one tool to help instructors be good reflection practitioners.

Implementation and subsequent evaluations of the reflection exercises

The initial plan for this research included not only the design but also the implementation and evaluation of reflection exercises for HERO's Kite course. However, due to HERO's unexpected organizational challenges, the implementation had to be abandoned. As a result, also interviews with the instructors and questionnaires among the participants to be conducted after the implementation for evaluation purposes became impossible.

Hopefully, HERO's organizational issues will soon have been resolved, and the reflection exercises in this thesis can finally be implemented in the Kite course. It is essential that afterward, there will be follow-up evaluations, and the reflection exercises will be modified accordingly.

The evaluation should focus on:

- the effectiveness and performance of the reflection exercises on different learners;
- evidence that different learners can learn to practice reflection and develop and deepen their level of reflection;
- attaining the goal of creating more awareness of the importance of reflection for youth with learning differences.

This handbook's scope and applicability are universal.

Although this work was commissioned by HERO for use in its Kite course for different learners, it can be beneficially applied to learners of all ages and with various learning issues in a wide range of settings. In outdoor education, reflection is undeniably crucial for processing and internalizing the experiences from outdoor activities and thus developing professional skills. When learners are capable of deep reflection, it serves them as a powerful tool for self-improvement.

However, the benefits are not limited to outdoor education or youth with learning differences. Anyone teaching or instructing groups can successfully apply these exercises to students and participants of different ages, learning types, and learning difficulties. Both instructors and participants – or teachers and students – will eventually profit from these exercises as they raise increasing awareness of the importance of reflection and uncover diverse ways of doing so.

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