Teachers’ Facilitation on Students’ Learning in Outdoor Adventure Education

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Teachers’ Facilitation on Students’ Learning

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Abstract

Student learning in the outdoors is often based on experiential learning where facilitation is integral in the process. Outdoor education teachers usually carry out facilitation during or after an activity to help students gain new knowledge, including of themselves and others. Facilitation can take the form of verbal or non-verbal group debriefs, metaphors, story--telling, reflection sessions or informal conversations. Often being considered as part of the hidden curriculum of outdoor education, facilitation is essential, yet often indirect and subtle.

The aim of this research project is to examine how facilitation techniques used by outdoor education teachers assist students’ learning in the acquisition of social and personal effectiveness skills. To address this, the study utilises ethnography and autoethnography as a research framework within the interpretive paradigm. Qualitative research methods including semi-structured interviews and focus group discussions explore the specific outcomes of teachers’ facilitation on students’ learning in a residential camp experience. Findings suggest that the main outcomes perceived by students related to the camp objectives in particular improved self-confidence and social communication skills were acquired mainly due to a range of facilitation techniques used by the teachers.

The results contribute to empirical research for facilitation literature and potentially bridge the gap between the role of facilitators and learning for youths in outdoor education.
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Chapter 1: Introduction

Generally, outdoor education programmes in New Zealand schools aim to produce positive changes in the personal and social development aspects of students by introducing them to adventure activities and outdoor pursuits (Zink & Boyes, 2006). This is echoed by Cosgriff (2008) in reviewing the recent snapshot of outdoor education in New Zealand schools, with a call for a more environmentally-attuned education that strengthen students’ connectedness with the environment, on top of personal and social development. Learning in outdoor adventure education is often based on experiential learning (Boyes, 2005) which includes facilitation. Facilitation refers to the process of creating an environment to help participants understand the purpose behind the activity and extract meaning from what they have experienced (Sugerman, Doherty, Garvey & Gass, 2000). In this process, teachers often engage students in reflection during or after an activity to help them make sense of the experience. Zink (2005) encouraged outdoor education teachers to “take students’ words seriously” (p.14) so as to help them engage in reasonable learning and derive meaning from their experience. Hovelynck (2003) reiterated the value of facilitation in adventure education and urged outdoor education teachers to create timely boundaries for the students, and take a step back to see the process of learning unfold before facilitating the experience.

Many authors also point out the benefits of having good facilitation in outdoor education (Hovelynck, 2003; Greenaway, 2007 & Thomas, 2008). Some examples include enhancing students’ experiences by raising their awareness during the experience and making it easy for them to communicate their thoughts and feelings, improving the students’
understanding of their own learning processes, as well as helping them to reflect on their experience from different perspectives. However, little research has been conducted to explicate exactly what goes on during a facilitated session (Brown, 2005), and whether the students have indeed gained new knowledge of themselves from it. This gap in research is an indication that this area is relatively undeveloped with in-depth analyses in a facilitated session. Hence the main aim of this research is to examine in detail the specific outcomes that could arise from facilitating students’ learning in an outdoor adventure activity. For this research study, the outdoor adventure activity refers to a two-day-one-night rock climbing residential camp where the students participate as part of their outdoor education curriculum in secondary school. The following research questions are addressed from undertaking this study:

1) What constitutes facilitation from outdoor education teachers in an outdoor adventure context?

2) Under what circumstances do teachers use facilitation techniques to assist students’ learning as part of the experiential learning process?

3) What are the outcomes or impact of receiving facilitation during or after an activity for the students?

The research is based on an interpretive research framework that uses a qualitative methodology. Purposive sampling was employed for this research project to include experienced outdoor education teachers who are most likely to provide the study with knowledgeable information. Semi-structured interviews and focus group discussions were the main source of data collection. My personal observations from the residential camp as
well as my autoethnographic reflections as an outdoor education teacher were also captured as a secondary source of data. Data was transcribed verbatim and analysed to qualitative research protocols. The findings would serve to provide deeper understandings and empirical support to existing facilitation literature in outdoor education. These could also offer potential for further study into the learning outcomes of students and the role of facilitators in effecting these outcomes.

The research project begins with a review of literature (Chapter 2). The main objectives of outdoor education in New Zealand schools are communicated followed by a description of adventure education in secondary school programmes. The review explores why experiential learning is often deemed as the pedagogical heart of adventure education, before touching on the role of facilitation in the process. Some limitations of existing facilitation literature are discussed in this section as well. The next chapter (Chapter 3) presents the methodology that guides the research process as well as a methods section that captures the steps in the research journey. Findings from the interviews and focus group discussions with both teachers and students are analysed and presented in Chapter 4 entitled ‘Results and Discussion”. Lastly, the paper concludes by revisiting the research questions, listing some of the implications for theory and practice before ending with my final reflections from this research journey.

Having been a physical education teacher who conducted various outdoor activities and residential camps for youths in Singapore for seven years, I have seen a fair share of good and bad facilitation practices and their immediate impact on the quality of student’s
experience. Personally, I believe that facilitation is a cornerstone of the experiential learning process. Other than acquiring technical skills from participating in an activity, I see value in talking about the experience to help students develop their character and soft skills, as the activity is simply just the means to an end. To me, the broader goal of outdoor education is to inculcate positive lifelong values in students and I feel that facilitation plays an important part in achieving that purpose. Many times, letting the students go through an exciting or adventurous activity is not enough to harness the full potential of the activity for learning. Appropriate reflective practices used by the teacher would better encapsulate the purpose of the activity as well as help students to internalise and make sense of what they have undergone. I have always wondered about but never quite figured out what are some of the actual learning outcomes and benefits that could arise from a teacher’s facilitation on his or her students’ learning in an outdoor setting. Therefore by embarking on this research, I hope that the findings can in a way affirm my personal philosophy of imparting good values to students and helping them learn better through facilitation in the outdoors.
Chapter 2: Literature Review

In this literature review, I begin by discussing the overarching aims of outdoor education in New Zealand schools, and how experiential learning as well as facilitation comes into the picture. This is followed by an exploration of how facilitation may assist students’ learning in an outdoor adventure activity. For this study, the learning outcomes of the students primarily refer to the acquisition of life effectiveness skills under the personal development domain, one of the three main learning foci of outdoor education in New Zealand schools identified by Zink and Boyes (2006). In outdoor education where facilitation is a fundamental part of experiential learning, it is thus important to conduct studies that will help to further understand how facilitation techniques used by teachers can assist students’ learning.

2.1 Outdoor Education in New Zealand

In order to understand the context of the study, one needs to be cognisant of how the history and characteristics of New Zealand have shaped and continue to shape New Zealand schools’ orientations towards outdoor and adventure. The historical origin of outdoor education can be traced back to the early settlement of the Māori people in New Zealand as they embarked on various explorations by canoe along the coastlines (Cosgriff et al., 2012). The British migrants and explorers who started arriving in New Zealand in the 19th century soon paralleled those outdoor ventures and exerted influences in the outdoor scene (Cosgriff et al., 2012). The gradual emergence of Aotearoa New Zealand’s adventure ethos can be attributed to these migration stories (Kane & Tucker, 2007).
In a nutshell, outdoor education has been part of New Zealand for decades but prior to the 1940s, it was primarily recreational (Kane & Tucker, 2007). Its intent has since become more vocationally-oriented from the 1970s, with greater emphasis on imparting skills and values that are associated with employability (Lynch, 2000). It was not until 1999 that outdoor education was officially included as one of the seven key learning areas in the Health and Physical Education curriculum, with specific objectives to develop personal and social skills, to become active and safe in the outdoors, as well as to learn and care for the environment (Zink & Boyes, 2006). The National Curriculum was revised between 2004 to 2007, and a new curriculum was developed in 2007. However, according to Cosgriff (2008), the 1999 Health and Physical Education curriculum document remains the most useful document and has been a point of reference for many teachers in terms of planning school programmes in spite of the release of The New Zealand Curriculum in 2007. Cosgriff (2008) also suggested that the emphasis on personal development outcomes has served to keep adventure activities and outdoor pursuits at the fore of many secondary school programmes in New Zealand, despite “the need to foster environmental appreciation, understanding and action” (p.14).

In the article ‘Outdoor learning in Aotearoa New Zealand: voices past, present, and future’, Cosgriff et al. (2012) discussed the changes that occurred progressively with the evolution of outdoor education in New Zealand. Starting from historical influences to the current curriculum scene, the paper highlighted how outdoor policies and curriculum are shaping up in recent years to take into account the environment aspect and bicultural nature of Aotearoa New Zealand. The authors also implored outdoor educators to rethink their
pedagogies to include more cultural and environmentally targeted practices in order to engage students with more purpose and stay relevant in the changing times. This is aligned with Cosgriff’s (2008) call for a more ‘environmentally attuned’ outdoor education as a relevant way forward in New Zealand schools, central to which “are ‘skill-full’ adventures that foster students’ connectedness with local environments, help develop sustainable human–nature relationships, and promote orientation towards action”. (Cosgriff, 2008, p. 23).

However, although the objectives of outdoor education have shifted through curriculum reforms over time and the emphasis is steering towards one with more environmental learning outcomes, ‘a focus on outdoor pursuits and adventure education with the aims of personal development appears to have been an enduring phenomenon in the history of outdoor education in New Zealand’ (Lynch, 2006, cited in Cosgriff, 2008, p. 20). Today, it is compulsory for all students up until Year 10 (14 to 15 years old) to partake in outdoor education and many New Zealand students participate in school camps for youth development purposes (Smith, Steel, & Gidlow, 2010).

2.2 Adventure Education in Secondary Schools

Adventure typically involves some form of risk taking as people participate in challenging tasks provided by the physical environment (Irwin, Straker, & Hill, 2012). This particular strong sense of adventure and outdoor lifestyle which underpin the New Zealand national identity has served to amplify the importance of adventure in outdoor education (King, 2007). A Ministry of Education report also noted that outdoor education
in New Zealand consists “mainly of adventure education and outdoor pursuits in schools” (Haddock, 2007, p.4). Irwin, Straker and Hill (2012) explained how the term ‘adventure’ has been widely acknowledged and gained symbolic state recognition, making adventure education a key and prevalent part of the outdoor education curriculum. It is evident that the practice of adventure education has been adopted commonly in schools as part of the outdoor education curriculum since its official inception in the Health and Physical Education syllabus.

In his article ‘The Place of Outdoor Education in the Health and Physical Education Curriculum’, Boyes (2000) noted the heavy influence of British and American influence and interpretations on adventure education in New Zealand. In essence, adventure education refers to the use of challenging tasks that involve elements of problem solving and risk-taking in the outdoors to achieve interpersonal or intrapersonal growth (Priest & Gass, 1997). Adventure activities are identified as one of the main learning opportunities to foster students’ personal and social development in outdoor education (Ministry of Education, 1999). This is affirmed by a number of authors studying the practice of adventure in New Zealand (Boyes, 2000; Lynch, 2006; Zink & Boyes, 2006; Kane & Tucker, 2007). In a more recent work, Mikaels, Backman, and Lundvall (2015) interviewed eight outdoor education teachers and their findings drew attention to how discourses of adventure such as risk, safety, skill and pursuit-based activities continue to dominate New Zealand secondary school outdoor programmes. They also highlighted how this dominating discourse with a focus on performance creates tension within the outdoor education curriculum that has a broader focus on learning for the students.
To further understand the scope and practices of outdoor education in New Zealand schools, Zink and Boyes (2006) administered a questionnaire consisting of both qualitative and quantitative questions to school staff involved in outdoor education programmes. Their results showed that outdoor education practices in secondary schools focused more on personal and social development through a wide range of outdoor pursuits and activities, as compared to primary schools where curriculum enrichment seemed to be the focus of their outdoor programmes. However, Zink and Boyes (2006) also noted that the response rate was relatively low as only 210 surveys were collected out of the 1500 surveys that were distributed. Thus, these findings should be treated with caution. Nevertheless, existing literature on outdoor education in New Zealand have unanimously established the prevalence of adventure activities in outdoor programmes to develop one’s personal and social skills in the schools setting.

2.3 Experiential Learning

More often than not, learning that occurs in adventure education is based on experiential learning (Boyes, 2005). The idea of experiential learning, or learning from lived experience was first mooted by John Dewey and the word ‘experience’ occurred in a number of his books, more notably, Experience and Education (1938). Dewey’s work affirmed that experiential learning is the heart of outdoor education where every lived experience is linked to meaning and the meaning of the experience is a result of ‘trying’ and ‘undergoing’ (Dewey, 1938). Drawing references from Piaget’s (1950) cognitive-development epistemology, David Kolb (1984) took Dewey’s concept further and conceptualised a
learning and development framework, more commonly known as Kolb’s Experiential Learning Cycle as illustrated below in Figure 1.

![Kolb's Experiential Learning Cycle](image)

**Figure 1. Kolb’s Experiential Learning Cycle (Kolb, 1984)**

Here, experiential learning is defined as “the process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping and transforming experience” (Kolb, 1984, p.41). According to the four-stage learning cycle, participants will first undergo an experience before drawing on the experience for reflection thereafter. They will then leverage on the reflection(s) to conceptualise and make sense of what was learnt, before experimenting to try out the knowledge gained. This process allows for learning through direct experience.

A large amount of literature dealing with adventure education literature identifies the
extensive use and influence of Kolb’s experiential learning cycle in the programming of adventure activities (Priest & Gass, 1997; Brown, 2004; Seaman, 2008). Because of its accessibility and applicability, I will be using Kolb’s experiential learning theory as the basis of what constitutes experiential learning for my study.

Even so, it is important to note that despite its strong establishment in adventure education, there are limitations to Kolb’s experiential learning cycle. Beard and Wilson (2006) listed a number of limitations concerning Kolb’s experiential learning cycle, emanating mostly from Miettinen's (2000) critique of the cycle. One of the key limitations that stood out is the oversimplification of the cyclical model, which might lead to insufficient encapsulation of the complex operations of the brain and, therefore limiting the description of the whole learning process. The problem of oversimplifying the learning process is also highlighted by Ord and Leather (2011) as they compared Kolb’s sequential learning cycle to Dewey’s original concept of experience as being holistic and non-sequential in nature. Although limitations exist for Kolb’s experiential learning cycle, there is no doubt that experiential learning has been endorsed as the one of the most prevailing theories for learning to occur in outdoor education (Beard & Wilson, 2006).

2.4 The Role of Facilitation and Facilitators

Many keystone studies in outdoor education have shown that experience itself is insufficient for learning (Kolb, 1984; Michelson, 1996; Priest, Gass, & Gillis, 2000). Dickson and Gray (2006) assert that one of the primary goals in experiential learning is to help learners elicit meaning from the activities in an empowering way and this can be
achieved through the process of facilitation. Facilitation is a term that requires further exploration as it has taken in the form of many other terms in different countries and is being used interchangeably and “possibly inconsistently to cover a range of aspects of an experiential programme” (Dickson, 2008, p.23). Some common names to describe facilitation include debriefing, processing, reflecting and reviewing (Dickson, 2008, Thomas, 2015).

In general, facilitation is defined as the techniques used in an “organised discussion, prior to or after an activity, that has the intention of enabling participants to generalise what they have learnt to other life settings” (Brown, 2002, p.101). Facilitation of an experience is considered desirable within the experiential learning cycle when it assists the participants to sort out and retain information in a meaningful way that is lasting and transferable (Priest & Gass, 1997; Sibthorp, 2003). For this paper, the term ‘facilitation’ is used to describe verbal discussions or non-verbal techniques used by the outdoor education teachers before or after the activity, with the ostensible aim of helping the students to learn from their experience.

Greenaway (2002, p.47) discusses the allied art of reviewing which is seen as “… any process in which the purpose or effect is to enhance the value of a recent experience.” In follow-up work by Greenaway (2019), four F’s of active reviewing are proposed (https://www.ed.ac.uk/reflection/reflectors-toolkit/reflecting-on-experience/four-f). The facilitation process is intended to review an experience and plan ahead by moving through four levels: (1) Facts - An objective account of what happened; (2) Feelings - The emotional
reactions to the situation; (3) Findings - The concrete learning that can be taken away from the situation; and (4) Future: Structuring the learning so that it can be useful in the future. This hands-on reviewing process is certainly compatible with the experiential learning cycle.

Facilitation skills are seen as essential key competencies for leaders of adventure experiences. For instance, Gass, Gillis and Russell (2012, p.211) use the analogy of a wall with essential “bricks” to represent the bedrock of leadership competencies as well as technical skills. The even more important personal skills include facilitation skills implicit in fostering positive group dynamics and task completion. The mortar is seen as the meta-skills that hold the wall together and here effective communication, problem solving, leadership style and decision making are all applied directly or indirectly through facilitation.

Most adventure activities have goals relating to helping individuals, groups and organisations learn about challenge, communication, teamwork and problem solving. A key role for the facilitator is to promote individual and social group change. For individuals, interpersonal (between people), intrapersonal (personal development) and behaviour change are key goals. Over numerous years, a number of strategies have been developed and regularly used to achieve such goals. From practice, Gass (1995) identified six generations of facilitation (cited in Stremba & Bisson, 2009, pp. 314-315):

1. Letting the experience speak for itself. After the experience, nothing is said and participants are left to interpret meaning for themselves.
(2) **Speaking on behalf of the experience.** The leader provides observations and feedback with little input from the participants.

(3) **Debriefing the experience.** The leader conducts a debrief using open ended questions to promote discussion and make links to learning.

(4) **Directly front-loading the experience.** The leader outlines the activity and the goals beforehand. After the activity, the debrief links the goals and the activity to learning.

(5) **Isomorphically framing the experience.** The leader introduces the activity using metaphors to link the forthcoming experience to other parts of the participants lives. The debrief focus is on individuals making meaningful changes to their lives. This is particularly useful in adventure therapy contexts.

(6) **Indirectly front-loading the experience.** This strategy is primarily employed in therapeutic programmes, where paradoxical forms like win-win or symptom displacement are structured. These are rarely used in school programmes and for a full discussion see Gass, Gillis and Russell (2012).

Collectively, these strategies form an important component of an outdoor educator’s repertoire of practice (Seaman and Coppins, 2006).

Greenaway (2007) also discusses the types of facilitation used in adventure education and reported the advantages and disadvantages of each type. He observed that every facilitator has their own preferred style and it could be a mix and match of the various types, depending largely on the context and circumstances. However, Greenaway (2007) acknowledged that the major focus of experiential learning has been on how participants
learn from experience, and little attention has been given to the role of the facilitator in the process. Similarly, Brown (2002) and Thomas (2008) highlighted the lack of clarity and empirical research in facilitation literature, reiterating the need for more studies focusing on the role of the facilitator in experiential learning.

One of the key premises of facilitation is that a transfer of learning is likely to take place between the learning site and its later application in people’s lives. Direct transfer involves learning and applying something learnt (e.g. paddling a canoe) to another situation (e.g. paddling a surf yak at the beach at home). Indirect transfer describes the observational learning from seeing others experiences (Martin, Cashel, Wagstaff & Breunig, 2006). The lessons learnt may be immediately applied or at a much later stage in an individual’s lifecycle. Gass (cited in Martin, Cashel, Wagstaff & Breunig, 2006), identified specific transfer for transfer between closely related situations. Non-specific transfer applies to more general principles and behaviours that influence behaviour in different contexts. Finally, metaphoric transfer refers to similar or analogous principles that are more indirectly applied to life situations. These forms of transfer vary on their level of specificity. The concept of transfer has been challenged by some researchers (see Brown & Fraser, 2009) who cast doubt on the notion that meaningful change can be produced in a relatively short-lived experience. They suggest further research is needed to support such claims.

Careful and timely incorporation of facilitation into the experiential process is critical to the success of learning (Sugerman et al., 2000). Using Kolb’s experiential learning cycle (see figure 1) as a point of reference, facilitation should ideally happen between the
reflective observation and abstract conceptualisation stage where the potential to scaffold learning is most prominent as learners attempt to make sense of the experience. The facilitators, whom in this study refer to secondary school outdoor education teachers, are therefore salient in assisting students to construct meaning from their experience as well as to guide them towards the intended objectives of the activity.

Brown (2005) postulates that several challenges have surfaced in the use of facilitation in recent adventure programming and there may be a need to rethink and examine deeper into the role of the facilitator. He argued that facilitators tend to formulate ideal answers for the students based on their responses, and exercise control in creating and limiting opportunities for discussion such that it stifles their learning (Brown, 2005).

Using ethno-methodological approaches to elucidate the detailed analysis of interaction in a facilitated session with two facilitators and fifteen participants, Brown (2005) suggested that the facilitators are indirectly imposing and creating a preferred version of reality for the participants in a purportedly student-centered discussion. This finding supports Hovelynck’s (2003) findings that facilitators have the ability to intervene and influence participants’ experience in ways that may or may not be beneficial. While the reported findings are not comprehensive or generalisable in the absence of large scale data, they do signal the problematic issues of determining the exact role the facilitator plays in a facilitated session, as well as how the steered facilitation could consequently cause learning to be contrived for the students.
Similarly, other studies have suggested it could be actually more beneficial and powerful for the participants to learn and make the experience their own without the facilitator’s involvement (Gassner & Russell, 2008; Campbell, 2010; Williams, 2012). Campbell (2010) and Williams (2012) found that participants were able to connect deeply with the environment and develop meaningful learning outcomes for themselves without the assistance of a facilitator. Williams (2012) pointed out the potential of a solo expedition for an individual without the facilitator’s direct guidance from his research findings:

These reflections are not dependent upon a facilitator-led briefing session outlining spiritual awareness as an important goal of the solo. Nor are they dependent upon the input and guidance of a facilitator during the solo. Neither are they dependent upon a facilitator-led end-of-solo review session. On the contrary, they are the thoughts and experiences of a student that emerged as a consequence of them being given the space, time and opportunity to make personal meaning out of their own experiences.

Even though the context of these studies was set in solo expeditions, it is important to acknowledge that it is still very much possible for participants to immerse in their own learning experiences and acquire deep reflections for themselves without the help of a facilitator in certain circumstances. In reinforcing the role of the facilitator in such cases, Knapp (2005) offers some recommendations that the facilitator should adopt to frame the experiences deliberately, yet facilitating from a distance for the participants to make sense of the experience themselves. This highlighted the fact that facilitators still have a key role
to play even though they are not directly assisting the participants to learn from their personal lived experience.

Nonetheless, while there are critiques and exceptions to conducting facilitation in the outdoors, facilitation still remains an important pedagogical tool in the experiential learning process of adventure education to help the participants learn from their experiences (Priest & Gass, 1997; Dickson & Gray, 2006; Greenaway, 2007).

2.5 Summary

Reviewing the literature leads back to the research focus on how can teachers’ facilitation assist students’ learning in an outdoor adventure activity. Currently, it remains nebulous on what is the exact role of facilitators in the experiential process, as well as the subsequent impact on learning for the participants. Hence, the study of facilitation should be expanded to include more fine-grained analyses in a facilitated session to examine the possible learning outcomes that could arise for the participants, particularly in the personal development domain.

Analysing the scope of outdoor education in New Zealand and how both experiential learning fall in the spectrum of adventure programming are essential to drive future research on in-depth examinations of a facilitated session. I hope that by delving deeper to understand the impact of facilitation on students’ learning, the findings may be relevant for the teaching fraternity. Outdoor education teachers could hopefully better appreciate the role of the facilitator in assisting the students to acquire personal skills, instead of simply
letting the experience speak for itself. This way, addressing how this aspect could assist students’ learning may potentially bridge the gap between the role of the facilitator and learning for youths in outdoor education.

The next chapter will go on to explain the research design chosen for this study and detail the various steps taken to collect and analyse the data.
Chapter 3: Methodology

3.1 Research design

3.1.1 Introduction

The aim of this research project is to understand how facilitation techniques used by outdoor education teachers can assist students’ learning in the acquisition of social and personal effectiveness skills. To address the research questions on how the teachers’ facilitation can assist students’ learning, the study utilises a bricolage of qualitative methods within the interpretive paradigm. The main research findings are informed by ethnography and supported by autoethnographic reflections. I will first explain in brevity the reason for adopting a qualitative approach before moving on to describe why I chose to use ethnography and autoenthography for the research design.

More often than not, the interpretive paradigm focuses on intersubjective meanings derived from lived experience and generally leads to the adoption of qualitative research methods (Pope, 2006). The underlying assumption of qualitative research is that reality and truth are constructed and shaped through the interaction between people and the environment they live in (Silverman, 2005). Bryman (2004) highlighted that the purpose of qualitative research is to explore and understand social phenomenon on a deeper level by allowing researchers to enter the participants’ naturalistic environment. Thus by embarking on a qualitative research for this study, it allowed me to gain a comprehensive understanding of the values, meanings and actions of the subjects involved in this study – namely the outdoor education teachers and students.
Various different factors also came to contribute to the strengths of using a qualitative approach. Semi-structured questions in the interview process elicited comprehensive answers from both teachers and students involved. These outcomes are evidenced with detailed accounts, rich words and thick description. A post-camp focus group discussion was also conducted six weeks after the camp to provide depth to the study. Furthermore, I was the primary instrument for observing, collecting, identifying and analysing the data. My reflexivity is explored in Chapter 1 and has been factored into the study “by weaving one’s reactions or reflexive considerations of self-as-instrument throughout the research report” (Tracy, 2010, p. 842). The inclusion of reflexivity is especially important in the practice of ethnography and autoethography, where were instrumental in the research approach. I turn to these now.

3.1.2 Ethnography

According to Delamont (2004), ethnography is commonly practiced in anthropology and sociology where it is used to study a group of people or culture. In describing the key characteristics of ethnography, Sangasubana (2009) stated that it is usually “conducted on-site or in a naturalistic setting where real people live and it is personalised as the researcher are both observer and participant in the lives of those people” (p. 567). As this study was conducted in an actual camp environment where: i) students get to apply their learning in various outdoor activities, ii) the teachers facilitated student learning with different techniques at appropriate times and iii) I took on both the role of a research observer, and a camp participant, I thought it was therefore depictive and suitable to employ an ethnographic approach.
Sangasubana (2009) also noted that the process of ethnography is generally inductive and dialogic in nature as participants involved in the study comment or give feedback on the interpretations and conclusions garnered. This is in line with the dialogues that I had with students and teachers during the interviews where they spoke about the perceived outcomes of facilitation (from the students) and the techniques used to facilitate their learning (from the teachers). From there, both student and teacher interviewees gave me their input on what I have interpreted based on what they say.

Ethnographers engage mainly in participant observation and fieldwork which means they often spend their time carefully watching and speaking to people about their thoughts, actions and behaviour in order to better understand their world (Delamont, 2004). On top of that, ethnographers also look for patterns and trends in the lived experiences of the participants by immersing themselves in the lives of those under study (Angrosino, 2007). For this study, I have attached myself to the group of participants and stayed for all the activities throughout the residential camp. This gave me the chance to get an insider’s view of reality and to collect deep and meaningful data in a realistic setting where the participants under study act naturally (Sangasubana, 2009). Moreover, by observing and talking to the participants in an informal setting during pockets of free time, I gained other insights that the interviews might not have elicited. This helped to widen the coverage of data collection as I observed objectively from a professional distance (Fettersman, 1998) and participated subjectively in the camp (Angrosino, 2007).
However, there are some ethical considerations that I have to be mindful of while adopting an ethnographic approach for this study. Very often, the use of ethnography involves a close relationship between researchers and the participants under study (Angrosino, 2007) as the researcher observes and tell the stories from the participants’ perspectives and real life experience. As such, it is necessary to put in place certain ethical principles to guide the research study through the participant observation and fieldwork process. The students, teachers as well as the parents of the students were made privy to the objectives and context of the study before they gave their consent to participate. The student and teacher participants were also guaranteed anonymity and ethical approval was sought from the designated ethics review committee of the university to ensure that the study was appropriate. These steps are also captured in the ‘Procedures’ part of this chapter and they serve to mitigate any ethical concerns that might arise while taking on an ethnographic approach.

In short, I relied on three primary data collection methods: semi-structured interviews, focus group discussions and my participant observations in the camp. Secondary data collection methods include my autoethnographic reflections, field notes taken with regard to the environment and people involved in the camp, as well as artefacts in the form of the students’ reflections. The use of multiple data collection methods has helped me to clarify meanings and enhanced the interpretation process.
3.1.3 Autoethnography

As pointed out in the introduction chapter, I have been a Physical Education teacher for seven years back in my home country Singapore. Planning, organising and implementing outdoor camps and programmes were a big part of my job scope. I chose to use autoethnography for this research study to explore my experience as a Physical Education teacher and to add my voice to the various bodies of literature on facilitation in the present context. I hope that by telling my own story in this study, it can also give me a chance to reflect on my facilitation practices, as well as understand the students’ emotional and physical learning needs better through my own experiences.

As the name suggests, autoethnography is a research method that inculcates personal experience (auto) to understand sociocultural connections (ethno) through the systematic process of describing and analysing the research journey (graphy) (Reed-Danahay, 1997). In essence, autoethnographies are “highly personalized accounts that draw upon the experience of the author/researcher for the purposes of extending sociological understanding” (Sparkes, 2000, p. 21). Autoethnography can range from simply narrating one’s personal experience throughout the research process to a simultaneous exploration of the researcher’s and participants’ experiences while conducting the research (Ellis & Brochner, 2000).

Several authors studying the use of autoethnographies or personal narratives have also suggested that this particular form of research method has been commonly used in school settings to explore teachers identity, self concept and motivation (Ellis & Brochner, 2000; Macalister, 2012; Ruohotie-Lyhty, 2013). Telling my personal story in the research process
would therefore help me “reflect on those experiences and thus make meaning of them” (Barkhuizen & Wette, 2008) to deepen the understanding of my own teaching practice and knowledge.

In reviewing the use of autoethnography to promote pro-environmental behavior, Nicol (2013) also noted the emergent use of autoethnography for researchers in outdoor education and experiential learning. Some examples include Dickson (2008) using the method to examine her learning preferences, Legge (2008) in relating cultural perspectives to her students so as to strengthen the awareness of their bicultural identity, and Martin (2011) using it in the development of experiential education programmes.

Despite the growing interest in the use of autoethnography as a qualitative research method (Wall, 2016), there are some existing limitations with regard to its practice and application. Méndez (2013) noted that one of the key limitations is the disclosure of the researcher’s personal emotions and thoughts in the process of narrating the experience. This might result in potential ethical issues as the objectivity of the study might be compromised if the researcher is too emotionally invested or biased in his or her writing.

To counter that, Wall (2016) recommended a “moderate autoethnography approach” where she encouraged researchers to seek a balance between the use of evocative and analytical autoethnography. Her proposition for a moderate use of autoethnography would accommodate “innovation, imagination, and the representation of a range of voices in qualitative inquiry while also sustaining confidence in the quality, rigour, and usefulness of academic research.” (Wall, 2016, p. 2). This approach sits well with my personal
academic belief that qualitative research studies should try and pursue the middle ground between writing personal and poignant pieces that connect the readers to the researcher’s perspectives while being sufficiently scholarly to support the findings with existing literature. Other than increasing the academic rigour of the study, having to substantiate my experience with existing literature would also prevent myself from “devolving into self-absorption” (Anderson, 2006, p.385). As such, I have decided to use Wall’s (2016) moderate autoethnography approach as a guideline for this research study.

I have chosen to write in a narrative format based on my experience and my recollection of personal experiences with other relevant outdoor encounters. This way, by navigating and incorporating my personal lived experience as an outdoor education teacher, I can therefore further relate, explore and establish the meanings that arise for the students from the outdoor programme to understand how facilitation techniques used by the teachers assist their learning.

The rock climbing residential camp was conducted over two days at a local beach with natural rock formations that are suitable for beginners through advanced rock climbers in the Otago region. The primary objective of the camp was to provide an opportunity for students to demonstrate basic rock climbing skills in an authentic outdoor setting as part of their National Certificate of Educational Achievement (NCEA) unit assessment. Apart from honing and assessing the students’ rock climbing skills, secondary objectives of the camp were to develop useful outdoor skills, acquire good values and gain a greater appreciation for the environment.
Prior to the camp, rock climbing and bouldering lessons were conducted fortnightly in school to introduce basic climbing techniques and safety code of conduct to the students. They were also exposed to sport climbing at the school’s rock wall to practice and acquaint themselves with the climbing process. This includes familiarising themselves with the use of safety commands in rock climbing as well as using the equipment such as helmet, harness, belay device and rope etc.

During the data collection over the two-day-one-night residential camp, I took down notes for each activity and detailed how the teachers facilitated the learning process for the students. Field notes on personal observations focused on the ways in which the teacher facilitated the sessions and how the students reacted. These are captured in Appendix G.

The teachers and students were interviewed individually throughout the camp during their down time or wait time after the debrief on the first night. Both teachers were interviewed for 45 minutes each. Out of the 22 students who were present for the camp, two of them were international exchange students from Japan. Their interviews were not taken into account for data analysis as they were only enrolled in the school for a short period of time. Also, the two international students faced language difficulties and were unable to comprehend as well as answer the questions from the interview. Therefore, I decided not to use their interviews and to use the remaining interview samples from the 20 students. I also conducted a focus group discussion with all 20 students six weeks after the camp to find out whether the outcomes in learning and behavior that were mentioned in the interviews during the camp continued to have an influence on their lives.
The findings from the interviews and focus group discussions were categorised and presented under the segments of students’ voices and teachers’ voices in Chapter 4 – Results and Discussion.

3.2 Participants
A good qualitative research method involves the selection of knowledgeable and appropriate participants via purposeful sampling (Patton, 2002). In selecting the sample, I chose to follow Creswell’s (2013) three considerations for purposeful sampling in qualitative research: the participants in the sample, types of sampling and sample size.

Participants in the sample
Given that the aim of the research is to understand how outdoor education teachers use facilitation techniques to assist students’ learning, it is important to identify suitable teachers who are currently involved in the planning or execution of outdoor programmes. Both teachers involved in the study have at least 20 years of experience running outdoor education camps and programmes. One of the teachers in the study is the current Education Outside the Classroom (EOTC) coordinator in charge of planning the outdoor education curriculum for the students in the secondary school. The other teacher is also part of the school’s Physical Education department and has been largely involved in conducting outdoor education activities for the students since she started working there.

Outdoor education practices in secondary schools focus more on personal and social development through a wide range of outdoor pursuits and activities, as compared to
primary schools where curriculum enrichment seem to be the focus of their outdoor programmes (Zink and Boyes, 2006). As the research is centred on exploring the impact of teachers’ facilitation on students’ acquisition of life skills particularly in the personal and social domain, Year 10 or 11 secondary school students were chosen as the participants for this study.

Through several outdoor volunteer opportunities with the school, I have formed friendly and professional relationships with the students and teachers. I know the students and teachers comfortably well from the informal chat sessions while helping out in the abseiling and bouldering activities they had before the rock climbing residential camp. The good rapport established hence allowed for comfortable conversations and aided the flow of information in the interview process (Patton, 2002).

**Sampling**

A purposive sample is selected based on the characteristics of a population and the objective of the study (Patton, 2002). The participants were thoughtfully and carefully selected based on the purpose of the study (Silverman, 2005), considering the following parameters: (i) the students should be involved in outdoor adventure activities in a residential camp setting, (ii) the outdoor education teacher should be leading the same group of Year 10 to 11 secondary school students through the activities in the camp, (iii) the teacher should facilitate the group of students based on the core principles of experiential learning in the outdoors (Kolb, 1984).
3.3 Procedures

Ethics

Ethical approval was first sought from the ethics committee at the School of Physical Education, Sports and Exercises Sciences, University of Otago prior to the data collection process. Once the ethical approval was granted, the objectives of the research were communicated in writing to the selected local secondary school. The teachers, students and other stakeholders (i.e. parents of the students) have been made aware of the informed consent process that guarantees confidentiality and anonymity hence pseudonyms were used for the student and teachers in the form of the letter ‘S’ for the Students and ‘T’ for the teachers.

Prior to signing the consent form, the participants were reminded that participation was entirely voluntary and that they were free to withdraw at any stage, and non-participation would not incur any penalties or negative consequences. All forms (from the students and teachers involved) were signed and collected duly before data collection commenced. I also explained my role and the format of the study briefly to the students and teacher participants to assuage any concerns they had, although I was conscious not to elaborate excessively on the aims of the study to avoid “contamination of the research” (p. 54) by causing them to alter their speech and behaviour (Silverman, 2004). I was ready to exclude any participant who might indicate that they were not keen to be involved in the research study. Fortunately none of them indicated so.
Interview Structure

The main purpose of interviews is to access and understand people’s perspectives on issues through the questions asked (Patton, 2002). Developing an interview guide allows the questions to be sequenced progressively and specifically to obtain all the necessary information from the interviewees. Patton (2002) identified four variations on interview instrumentation that range from purely quantitative (close-ended interviews) to purely qualitative (informal conversations). This research project employed a semi-structured interview method to interview the outdoor education teacher and students. Conducting semi-structured interviews also gave me the autonomy and flexibility to build a conversation within the particular interest area and delve deeper into emerging themes (Patton, 2002) as the interview progressed.

The questions in the interview guide for the outdoor education teacher pivoted around a) what type of facilitation techniques were used, and b) the circumstances underpinning the selection of techniques. The responses given from the teachers were helpful in addressing the research questions as they narrated in detail how and why they conduct facilitation in the outdoors. As for the students, questions were focused on their perception of the outcomes or impact of the facilitation received from the teacher, i.e. what knowledge have they gained of themselves, or of others, as well as how the facilitation techniques may have supported the acquisition of personal and social skills. An example of the interview schedule is provided in Appendix E of this document.
Prior to the camp, I also conducted a mock interview with my supervisor to practise asking the open-ended questions as well as assess the general responses that will be elicited from the initial interview guide. Following feedback from the mock interview, I revised the questions to sharpen the content focus and edited ambiguous questions.

A pilot interview was also conducted in an informal conversational format with one of my peers with a relevant background in outdoor education from the Physical Education Postgraduate School. This provided me with an opportunity to hone my interviewing skills and I also gained further insights on the kind of responses that may be generated. Subsequently, I tailored the interview guide to include more specific questions and added other handy interview probes.

**Data Collection**

I took on the role of a participant-observer throughout the outdoor residential camp and attached myself to the outdoor education teachers and their group of students. I participated in all the camp activities and played a passive role in the process so as not to interfere with the execution of the camp or exert any form of influence on the participants’ experience or responses (Silverman, 2005). As observations seldom reflect the full intent behind the behaviour (Bryman, 2004), interviews were employed to provide insights into the meanings and significance of what was observed. When used in tandem, both observations and interviews can provide data that “bridge the gap between stated and actual behaviour” (Bryman, 2004, p. 165).
The teachers were interviewed daily in the camp (for around 45 mins) and the students were interviewed individually (for around 10 to 15 mins). During the interview, I also took down notes in a journal to keep track of the topics covered and to capture anything observed that had relevance to the interview, or any other additional information and comments about the interview process that may be helpful later (Patton, 2002).

I also used an audio recorder to record the naturally occurring talk from the interviews and focus group discussions. Audio recordings are useful as they can correct the natural limitations of memories and subconscious bias that may be reflected in manual recordings (Bryman, 2004). My mobile phone was also available throughout as a backup for recording in case of any occurrence with Murphy’s Law on battery issues or technical difficulties. Additionally, during the residential camp, I wrote down field notes focusing primarily on how the teachers facilitated, how the students responded and reacted during the facilitation, as well as how they talked about their thoughts and feelings vis-à-vis the teachers’ facilitation. Artefacts in the form of the students’ reflections were also collected after the camp to corroborate the responses captured from the interviews and focus group discussions.

Focus group discussion is one of the methods used to collect qualitative data and it normally involves a small number of people talking about a particular topic in an informal group setting (Wilkinson, 2011). In discussing the role of focus groups for qualitative research, Gibbs (1997) mentioned that they can either be used during a study to develop a particular type of programme, or after a programme has been completed, to evaluate and
examine its impact on the participants. For this study, a focus group discussion with the two respective classes of students was conducted six weeks after the camp to probe deeper into the responses captured from the interviews as well as to check on how things were after the camp. I chose to conduct a focus group discussion instead of another structured interview so it would be less exhaustive and overwhelming for the participants, as they have had been interviewed individually during the camp. Besides, having a focus group discussion also enabled a larger amount of information to be obtained within a shorter period of time as the participants could share and reveal their thoughts more easily in an informal social group setting (Gibbs, 1997).

In conducting a focus group discussion, the researcher typically takes on the role of the ‘moderator’ asking questions, generating discussions and encouraging participants to interact and talk among themselves (Barbour, 2007). For the session, I adopted an open discussion format where the students are encouraged to speak their mind on what they thought after the camp with the few questions posed. The conversations flowed and I only prompted the students with another question whenever it deemed fit. Conducting a focus group discussion has thus provided depth to the study by inquiring into the sustained outcomes and perceived influence of the teacher’s facilitation on the students’ learning after the camp.

Lastly, for storage purpose, data was transferred from the audio recorder and mobile phone with a built-in USB jack directly to my personal computer. This included the data transcribed from the interviews. Throughout the span of the research, the computer was
kept under secure password protection known only to me in order to keep the information confidential. The data was also copied to an external hard drive for backup in case the computer became faulty. A copy of the interview transcription and research findings was sent to the participants via email. The recorded files will be deleted subsequently from the external hard drive upon completion and submission of the research project.

Overall, the process of data collection from the residential camp and post-camp focus group discussion took around three months. Data collected include field notes that captured my personal observations, interview as well as focus group transcription from the participants.

### 3.4 Data Analysis

**Interview Transcription**

Patton (2002) considers that verbatim transcription is an essential process for qualitative analysis and all interviews should be transcribed before analysis can properly begin. Accordingly, all interview were transcribed verbatim including notes about pauses, laughter, and grammar used. Each sentence was assigned a number, and the appropriate symbol for who spoke was written down. Following that, I communicated the preliminary information to the teachers through the process known as member checking. This has helped to confirm the trustworthiness of the initial transcriptions and ensure accurate depictions of the participant’s account. However, as it was possible that some information gained might be sensitive in nature (e.g. the critique of teaching style, inappropriate or unsafe student management etc.), an empathetic stance was adopted to consider such instances.
In qualitative data analysis, pattern identification following interview transcriptions usually comprises a combination of at least three forms: content analysis, case analysis, and inductive analysis (Patton, 2002). The data rendered from this research project was subjected to content inductive analysis where I have examined the actual words that form the data content and looked into the details for patterns, categories and themes. With the emerging patterns and themes, I proceeded to check them against existing literature for support and correlation of findings to the conceptual framework of facilitation research. This step served to strengthen the rigour of the research process and refined the initial emerging theoretical ideas.

**Trustworthiness**

Truth or trustworthiness in qualitative research is based on social agreement and a proposition is deemed to be true if it coheres with other propositions from the research findings (Sparkes & Smith, 2009). In other words, truth is what the researcher and study subjects make it to be based on common understandings that are socially constructed together. I have collected information from a variety of sources through semi-structured interviews, participant observations, informal conversations and focus group discussions with the students to provide depth for the study and enhance trustworthiness. Information gathered was transcribed and crosschecked with the subjects themselves and fellow peers in the Physical Education Postgraduate School. This member checking process ensured that I interpreted the data and reviewed the material accurately. Triangulation from using a range of data collection methods can strengthen the validity of the findings (Gratton & Jones, 2004). As depicted in the section earlier, data was gained
from multiple sources including interviews, observations, focus group discussions and my personal experience in facilitation knowledge. My personal autoethnographic reflections and experience as a Physical Education teacher were also captured as a source of data. Furthermore, field notes and journals that recorded the reactions as well as expressions of the participants also allowed personal reflections to be captured, which aids in the recognition of bias (Sparkes & Smith, 2009). These steps have enhanced the trustworthiness and credibility of the analysis process.

To further establish trustworthiness, a person external to the study was asked to evaluate excerpts from the transcriptions from audio-recordings and the coding of the transcriptions (Silverman, 2005). For this purpose, I enlisted the help of my supervisor to conduct an audit trial once the interviews were transcribed. An audit trial documents the course of development of the data analysis and requires the researcher to describe the decisions and activities of the study (Koch, 2006). This process clarified any discrepancies that arose from the preliminary findings of the research project.

3.5 Summary
This chapter has detailed the reasons and thought process behind why I chose to embark on a qualitative research and adopt the ethnographic and autoethnographic research approach. It has described the research journey of how I collected, transcribed and analysed the data. The process of qualitative research is often messy and unpredictable (Bryman, 2004) and I found myself constantly checking, evaluating and re-evaluating what I was writing throughout the research process. It also reinforced the importance of being clear
and transparent to capture the various steps in describing the different stages of conducting this research.

The next chapter will present the results of the research, stemming from the processes detailed in this chapter.
4.1 Students’ voices

4.1.1 What is the camp about?

To initiate conversations and ease the students into the interviews, I started with asking them what their hobbies were and what they thought the camp was about. They were able to answer the questions easily (see Appendix E) and describe what they did in the camp. These include learning technical skills such as rock climbing techniques and acquiring personal skills such as improving on their communication with each other and learning to work together in a team.

Technical skills

Most of the students interviewed (18 out of 20) stated that the camp was for them to develop rock climbing skills and experience outdoor climbing. A minority of them (4 out of 20) went on to elaborate that the camp also encompassed the acquisition of other outdoor skills such as bouldering movements, outdoor cooking preparation and execution, gear organisation and tent pitching. It was also the first time learning how to use a trangia set to cook in an outdoor setting for most of the students. Interestingly, there was one student who brought up the fact that the camp was conducted to allow them to gain NCEA credits. Nonetheless, the majority of students were able to articulate the objective of the camp; which was to allow them to learn and apply basic rock climbing techniques and skills.

The findings verified that during this camp, which was designed around assessing the students on their application of rock climbing and other technical skills such as outdoor
cooking, the students have learned to climb, boulder and learned other related outdoor skills. However, this is neither surprising nor very interesting as “outdoor programs have long been based around the premise of technical skill development and the efficacy of this learning is rarely challenged” (Sibthorp, 2003, p.154).

**Personal skills**

Apart from the mastery of technical skills, 10 of them (50%) mentioned that the camp also allowed for development of interpersonal skills such as improving communication with their peers, respecting and encouraging each other, and working together as a team to accomplish the goals set for the various activities.

An excerpt from the interview with S4 went like this:

Int: Can you describe to me what this camp is about?

S4: This camp is like, learning interpersonal skills, like yeah encouraging people.

Int: For example?

S4: Like teamwork.

Int: How so?

S4: Like making sure everyone is safe, everyone is comfortable.

This sentiment was echoed by S6 in the same class:

Int: Can you tell me a little bit about what you have done today?

S6: So I just climbed up the rock and we also have to use our interpersonal skills like when climbing up the rock.
Int: What kind of interpersonal skills?

S6: Teamwork and appropriate communication.

Int: Can you describe more to me?

S6: Appropriate communication like I should always use appropriate communication with the climber and back-up belayer. Just to like, know that the back-up belayer has got my back when I’m climbing.

These traits were telling in the rock climbing activity as the students exercised a high level of vigilance in the belaying process. They were seen to be communicating more regularly than usual and taking care of each other on the wall via verbal check-ins.

Three of the students believed that the camp was conducted for them to build intrapersonal skills such as improving their self-confidence and learning to overcome their fear of heights. Furthermore, a handful of the students mentioned that the camp also gave them the chance to know each other better. There were opportunities for social bonding as they climbed and belayed each other, cooked the meals in their groups and spent the night together in the tents. From my personal observations, I also noticed that the girls enjoyed chatting within their groups while cooking the meals and there were laughter as well as jokes circulating amongst the groups.

The students’ perception of the camp outcomes were not altogether unexpected. Many research studies unanimously identified personal and social skills development as one of the key outcomes of adventure education (Priest & Gass, 1997; Lugg & Martin, 2001;
Polley & Pickett, 2003; Zink & Boyes, 2006). These personal development outcomes such as interpersonal skills in team building and communication skills mentioned by the students could be attributed to the novelty of the adventure experience as well as the social interactions present in the experience (Smith et al., 2010). Robinson (2013) posits that students tend to strengthen their relationships with each other when they are out of their comfort zone in adventure activities as they have learned to rely and trust each other in the process. This could be seen when the students who were climbing exhibited signs of trust in the belayers as they scaled the rocks. Remarks like “Don’t worry, I’ve got you!” as well as “You can trust me!” were heard from the belayers to assure the climbers too. This finding also supports Lynch’s (2000) postulation that school camps and outdoor adventure programmes have the potential to provide a positive environment for developing friendships and social bonds.

However, we should note that these are perceived acquisitions based on the activities (i.e. rock climbing, tent pitching and outdoor cooking) of an outdoor adventure camp from the students’ point of view. The focus of this research study is rooted in understanding how the outdoor education teachers’ facilitation has helped the students learn. Having said that, the next section will move on to explore what were the learning outcomes that have resulted from the teachers’ facilitation in the camp based on the findings from the students’ interviews.

4.1.2 How did the teachers facilitate the students’ learning?

There are five ways in which the students perceived how the teachers helped them to learn throughout the residential camp. They are listed as follow:
1) Guiding, demonstrating and giving feedback during the activities
2) Writing down in reflection booklets
3) Facilitation tools such as using cards with words
4) Verbal questioning and probing
5) Being supportive and encouraging

Guiding, demonstrating and giving feedback during the activities

During the rock climbing activity on the first day, the teachers constantly supervised the various groups and provided instant feedback to the students to correct their climbing or belaying techniques. The students expressed that they felt physically and emotionally safe from the perpetual guidance given by the teachers.

This was consistent with my observations where I noticed that the teachers were quick to answer any queries from the students as they walked around the groups, checking in on them regularly. They also gave advice and learning cues and to the students when they faced difficulties like being stuck scaling a certain part of the rocks. Some verbal cues heard include: “keep your feet straight”, “hands out” and “straighten your back”.

For the outdoor cooking portion, one of the teachers demonstrated to the student cohort the procedures to set up and use the trangia stove. The students shared that they appreciated the visual demonstration because most of them had not used the cooker before. It was also the first time lighting a fire for some of the students. When asked about how the teachers
helped them learn, S5 noted that the teachers empowered them with the knowledge to use the cookers themselves, rather than simply setting it up and cooking for them:

And instead of them just cooking for us on this camp, they made sure that we actually do it ourselves like we could prepare, we know how it works, being organised from there, that sort of things as well, not just the climbing.

Writing down in reflection booklets

All students were issued a booklet to complete as part of their camp experience. There were mentions of “recall the experience”, “put in words”, “remember better” and “process better” when the students spoke about the effects of writing down their reflections in the booklet at the end of each day.

S12 related how the teachers helped them learn by ensuring that they pen down their thoughts in the booklet: “Cause like, when you’re doing it (rock climbing), you don’t really think much of it (the experience itself)? When we have to write about it, then we remember… like process it better I guess.”

Additionally, a number of students responded that they were clearer of the purpose behind the activity when the teachers got them to write down their thoughts and feelings. This process enabled them to think back and link what they had learned in school to what they actually did in the camp. For example, two students shared that they were able to apply the climbing techniques (“smearing” and “dropping the knee”) simulated from the artificial rock wall in school to the actual outdoor climbing experience.
The reflection booklet created by the teachers also provided a platform for the students to think about their targets for the next day and what they would like to improve on. This was helpful as it gave the students a purpose to look forward to.

Facilitation tools such as using cards with words

When asked how the teachers helped them learn and reflect, 11 out of 20 students (55%) responded that the “laminated cards with words” were “good” because they can use them to talk about their thoughts for the day. These cards were printed and laminated with different words depicting both positive and negative emotions. Figure 2 below shows a sample of the cards with words that the teachers used for the debrief on the first night of the camp:

![Student holding the laminated cards she chose for herself](image)
During the interview, the students shared with me the words that they picked for the debrief session with the teachers. I would go on and ask why they chose the words, what did the teacher say to their response and how this helped them learn. S3 related the words that she chose and how it made her feel:

Int: What are the two words that you choose?
S3: I chose ‘inspiration’ and ‘scared’. I was scared to abseil down; it was just a bit too high for me but I was inspired by how everyone was encouraging one another and working together.

Int: And what did your teacher say to that?
S3: She said she was proud of how she saw the teamwork and she saw some improvements between me.

Int: And how has that helped you learn anything about yourself?
S3: It’s helped me learned more confidence. Not just in climbing, but with meeting new people and it’s rewarding and I feel like I’ve achieved something.

Significantly, there were 15 mentions of “meaningful” and “purposeful” learning from this debrief session where the facilitation tool (cards with words) was used. The responses from the students suggested that the facilitation tools have assisted them to articulate what they felt or thought from the day’s work. This process gave them greater clarity on what they have learned from the camp as they heard the feedback and responses personally from the teachers when they went around the circle.
In addition, by listening to what others have said with regard to their own experience, the students reported that they also learned more about their friends. For example, one student shared that she was not aware that her friend had the same fear of heights (as she did herself) and was surprised to know that because it was not apparent at all during the climbing activity. This finding illustrated that the students perceived the use of laminated cards as the most effective way the teachers helped them learn and reflect.

**Verbal questioning and probing**

When used in tandem with the facilitation tool mentioned above, timely and meaningful questioning by the teachers during the circle time led to more depth in the students’ reflections.

S8 recounted: “With the teacher asking more questions about how and why it happened and examples, yeah it gave us more in-depth insights of what we’ve done.”

This resonated with S12’s response: “If she (the teacher) weren’t there, I probably wouldn’t be able to do reflect more in-depth and I feel… with her help, I learn better.”

When probed further about what the ‘in-depth’ in her response meant, S12 added; “Oh, just so I can be more specific in what I’m saying like making me recall the experience and actually know how to explain safety behaviour better and how communication is important in it.”
4.1.3 What did the students learn?

Almost all of the students (95%) perceived the debrief session, which is the facilitation with cards and reflection, as meaningful. They felt that by talking about their experience with their teacher and friends not only made them learn something about themselves, but also about others. S7 recounted what she had learned from the debrief session:

  Int: Did you gain any new knowledge about yourself or about others?
  S7: I learnt that some people were quite afraid of heights, which I kind of already knew, but I never knew in that scale cause you know at the rock-climbing wall it’s different, different environment and everything.
  Int: Do you think the reflection session was meaningful?
S7: I quite like having debrief. You know cause I like to, well I obviously, I know how I’m feeling but I like to see how everyone else is feeling about the day. You know if someone is feeling down about it, and no one else knew, it’s just kinda... you know, we can all encourage them tomorrow and work on it guess.

In contrast, S13 voiced out that the reflection session is “not really” meaningful as they have been doing it for most subjects in school. It was interesting to note that she was probably desensitised to debriefs and reflections as follow:

Int: Was the reflection session meaningful to you?
S13: Not really, cause we did it for a lot of things. Like reflecting and such; it’s kinda like just a normal part of school; reflecting on things like that.
Int: Okay, do you get to reflect a lot in school and in all other subjects as well?
S13: In majority of our subjects we do. From like how do we improve on our work to like, reflect back on the work we did at the start and then like when we rewrite it, we can look back at how to improve it (the climbing).

The desensitisation to reflection and debrief is not uncommon. For example, when I mentioned conducting a debrief after the completion of an outdoor activity, I remembered hearing some of my students lamenting with comments such as “Debrief again?”, “Why do we need to reflect so much?”. Like S13, they probably felt overwhelmed with the reflections in the school curriculum, and could not understand why they have to reflect or talk about their experience even in the outdoors. This is where the teacher comes in and explains the purpose of the activity as well as try as much as possible to engage the students
in the debrief/reflection session. For myself, I would attempt to diversify the ways of conducting the debrief session with various tools or props to increase the engagement level of the students. This way, we could avoid oversaturating the students with the regimental method of talk and reflection in the hope that the students would not be desensitised to the process of debriefing after the activity.

Nonetheless, there was a diverse range of skills, knowledge and values that the students have learned from the teachers’ facilitation. For this reason, I divided the learning into “learning about themselves” and “learning about others”.

**Learning about themselves**

**Physical domain**

The physical skills surfaced as the most obvious learning outcome from the camp. 15 out of 20 responded that they have acquired rock climbing and belaying techniques from the camp. Most of them also touched on the appropriate safety behaviours that they have consciously adopted in the camp such as spotting each other, ensuring that the equipment (helmet, harness, rope) were used correctly, as well as completing the necessary safety checks before and after the climb.

**Affective domain**

12 out of 20 students felt that they have learnt to “get out of their comfort zone” and “pushed themselves more” through the challenges of the camp. This is because their physical limits were pushed when they are trying to climb over the difficult parts of a route.
A common trend of “not giving up” among the students also surfaced when they elaborated on how they were “out of their comfort zone”.

Also, through the rock climbing activity and debrief session by the teachers, S20 opined that she has acquired some social skills in talking to people, given that she is generally soft-spoken by nature:

I don’t usually talk about what I have done with others, so this way I kind of have to. (Usually) I’ll just do it and then not talk about it at all. I just keep it to myself. I guess it boosts my confidence in talking orally to others.

A handful of students also spoke about building trust with their friends through the rock climbing activity and through the facilitation session from the teachers. One of them in particular mentioned that she used to have trust issues but because of the climbing and belaying process, she felt that she “can now trust the classmates better”.

**Cognitive domain**

One particular student mentioned that she has learned from the facilitation session that goal setting is important and it served to provide some context and clarity for the next day. The teachers would recap the day’s activity during the facilitation session and remind the students to set progressive goals for the next day. As S9 pointed out: “And also what I really like is the goal - I think it was very important; I would keep that one with the goal; like what do you want to do tomorrow.”
Learning about others

Several students expressed that the facilitation session allowed them to know their friends better as they spoke about their thoughts and feelings using the cards with words. There were mentions from the interviews such as “know my friend better” and “interesting to hear what they say” which could be attributed to the positive outcomes from the facilitation session as everyone took turns to share what they felt from the day.

Friends

One significant example of learning about their friends through the facilitation session is the issue regarding the fear of heights. As S7 shared: “I learnt that some people were quite afraid of heights, which I kind of already knew, but I never knew in that scale cause you know at the rock-climbing wall it’s different, different environment and everything.”

This notion about knowing their friend’s fear of heights when they are rock climbing came through during the facilitation session when the students shared about their experience. S3 pointed out that she has also learned through her friends’ experience:

“Cause some of the girls that were scared of heights and stuff, they talked about how they were pleased with how high they had got and like it made me think like even though they didn’t get so high, they were still pleased with that. And like, they also made the rest of us think like “I didn’t get to the top of this one but next time, we can do it.”
Teachers

Not only did the facilitation session allowed the students to know their friends better, it was also an avenue for them to hear from the teachers and know what and how they felt.

As 1 of the students explained:

… it’s good to hear how she (the teacher) felt. It’s rewarding as I remember she felt proud as she saw lots of improvement within the whole group. And yeah, I think it’s really nice having the teacher share what she felt towards the whole group. (S3)

This was reiterated by S9:

Especially if the teacher does it (sharing) herself too; if she doesn’t do it, it’s not as good I think cause then the people will feel like she’s not connecting with other people. But if the teacher does it too, then yup it’s a good thing.

Here, we can see that the camp has achieved its main objective as most students have successfully acquired technical mastery in the rock climbing aspect. Besides that, most of them have also became more self-confident and gained social skills such as building trust with each other as well as in improving their communication skills. The teachers’ facilitation has essentially assisted the students in acquiring these intrapersonal and interpersonal skills.

4.1.4 Perceived transferability of learning

19 out of 20 students (95%) responded that they could apply what they learnt from the camp to their school or daily life. Only one student mentioned that she was “not too sure”
if the learning outcomes were transferrable to her school or daily life because it is “hard to
tell when back in school”.

Even though most students acknowledged that they would probably not rock climb or
boulder much in school or in their personal life after the camp, they pointed out that they
could possibly apply the other skillsets gained from the camp to their school lives.

For instance when it comes to homework, S8 said that:

Yeah like pushing myself with my schoolwork. So if I’m struggling or unsure about
a certain subject, instead of just procrastinating and like leaving it off, just like yeah,
be determined to understand and do well in the tests.

S14 mentioned that this camp has taught her that she could take on new challenges and this
was something that she could take away from and remind herself in her daily life. Some
other common examples include “perseverance – telling the mind that I can do things when
it tells me that I can’t”, “confidence gained during the camp is rewarding and can be used”,
and “teamwork where you can always use teamwork by supporting and encouraging others
in difficult school situations”.

Two students from the camp also shared that they were keen to become outdoor instructors
in the near future hence the outdoor skills gained from the camp might be valuable for their
potential careers in this line of interest.
4.1.5 Post-camp focus group discussion

All 20 students were present for the focus group discussion and an open discussion format was adopted to encourage students to answer the questions posed. I also informed the group that they could add on to each other’s replies anytime if they wanted to. The purpose of the discussion was to check on how things were after the camp and to see if the students had retained or put to use the learning outcomes mentioned in the interviews during the camp.

The students informed that they had completed the reflection and evaluation section in the assessment booklet after the camp. However, the perceived level of retention from the influence of the camp was low. The majority of the students felt that they did not change much after the camp as it was a short 2-day-1-night residential camp. They honestly felt pretty much the same, except that they were more bonded through the physical and emotional challenges. They agreed that they could communicate better in school as they were more comfortable with each other.

One of the main challenges in outdoor education is the sustainability of learning and experiences after the participants return back to their daily life upon the completion of a program (Sibthorp, 2003; Leberman & Martin, 2004). The ability to transfer learning from residential camps has been studied in several different outdoor environments and programmes. Sibthorp (2003) found the challenge of transference of learning not surprising as the application of life skills gained after an outdoor camp programme is often onerous and questioned. He reviewed the outcomes gained by eighteen adolescents from a three-week adventure programme and highlighted that personal and social skills such as
communication and tolerance as well as appreciation of others – were mainly acquired through trying new activities and receiving feedback. These abilities were found to be transferable to home but hard to measure its long term sustainability and applicability (Sibthorp, 2003). This study supports Sibthorp’s (2003) findings on the acquisition of personal and social outcomes after a camp programme but given the short duration of the camp, these outcomes were not retained strongly as seen from the focus group discussion.

In a study of post-course transference of learning by Leberman and Martin (2004), the authors recommended having some form of reflection after the completion of a programme to enhance the transfer of learning outcomes. They suggested the use of a structured approach that incorporates two additional reflection times as an extension of Kolb’s (1984) experiential learning cycle. The model below illustrates the extension, paying close attention to the addition of reflection “Time 2” and “Time 3”.

![Experiential Learning Cycle Model](image-url)
Figure 3. Extended experiential learning cycle incorporating the notion of time with respect to reflection (Leberman & Martin, 2004)

Based on their research findings, Leberman and Martin (2004) suggested adding “Time 2” around two to four weeks after the completion of the camp to allow enough time for participants to re-integrate back into their home or school environment. Reflection at “Time 3” is recommended to be conducted approximately six months after the camp so as to truly enable participants to implement and apply some of their learning from the camp in order to provide an accurate indication of the transfer of learning. The authors encouraged adventure education service providers and outdoor education teachers alike to plan and design the camp programme creatively so as to include the three different reflection times in the experiential learning cycle to enhance the transfer of learning after the camp effectively. Drawing upon the recommended extension of Kolb’s experiential learning model by Leberman and Martin (2004), it might be a good idea for the teachers to include two additional reflections for the students after the camp based on the suggested timeframe to better facilitate the learning outcomes for them. However, while advocating the use of the extended model, Leberman and Martin (2004) also cautioned the need for further research to identify the optimum inclusion of “Time 2” and “Time 3”. Nonetheless, despite the need for more empirical research, their findings have suggested that inclusion of the notion of time in terms of reflection within Kolb’s (1984) model is a useful addition to adventure-based experiential courses and camps (Leberman & Martin, 2004).
Summary

The students felt that the teachers were able to prompt and probe into their experience using the laminated cards with words during the debrief session at night after the first day of activities. This largely aided their reflection as they were subconsciously recapping their thoughts and feelings when they share their experience to the group. It can be concluded that the laminated cards with words was the most effective form of facilitation from the students’ perspective, apart from the visual demonstration, verbal feedback, reflection booklet and deliberate questioning.

The primary objective of the camp was successfully met as most students felt that they improved on their techniques and were able to apply the skills learnt in the rock climbing activity. Based on the students’ perception, the teachers have also effectively facilitated their acquisition of social skills, especially in helping them improve on their communication skills and in the aspect of building trust with their peers.

However, the results from the post-camp focus group discussion indicated that the learning outcomes sustained from the camp could be better retained with more intentional focus and emphasis when the students are back in school such as catering some time out for students to reflect upon their camp experience.
4.2 Teachers’ voices

The two teachers were interviewed at the end of each day after they have conducted all activities for the students. I started by asking them easy and light-hearted questions to ease them into the conversations. Results in this segment include extracts from the interviews and my personal observations of the teachers’ facilitation in action (refer to annex G). I have also added my own voice and experience as a fellow outdoor education teacher in this section.

After a series of rock climbing lessons in the school, both teachers believed that the camp was a good platform for the students to apply what they have learnt. They also felt that it was a good opportunity to expose the students to living in an outdoor setting and learning about the environmental care code through the residential experience. By exploring how they facilitate in this residential camp, this part of the chapter will address the research questions on what constitute facilitation for an outdoor education teacher, as well as under what circumstances would the teachers apply the techniques to assist the students’ learning.

4.2.1 Personal philosophy and definition of ‘experiential learning’

Personal philosophy

The two teachers who were interviewed have very similar outdoor teaching experience and philosophy. They are both very passionate about the outdoors themselves personally and enjoy doing recreational outdoor activities themselves in their free time. They are also strong proponents of using outdoor education to develop good values and skills through exposing the students to a variety of outdoor activities and camps.
As T1 puts it:

I love the outdoors, I love being outside and I love the challenges that outdoor activities provide. And I love the growth that I see in students through the experiences and challenges that they take on and what they get out of it.

This statement resonated with me as I am also a firm believer in using the outdoors to instill good values and it gives me great joy to be able to chart and witness the students’ growth from outdoor programmes. I remember when I brought a group of 10 students out for a residential expedition in Pulau Ubin, one of the offshore islands in Singapore. One of the students was designated the ‘leader’ by the other group members and he was navigating the route by himself with a compass. However, he got the group on the wrong track and once the members realized they were getting nowhere, they were quick to point fingers and blame him for the misdirection. The ‘leader’ cried and reminded the group that it was supposed to be a ‘team thing’ and that he was appointed the ‘leader’ by them (not that he willingly volunteered for the role). Upon hearing that, the members softened, regretted their reactions and empathised with the ‘leader’. Progressively, things took a change for the better and the group cooperated very well for the rest of the expedition. They worked together as a team and experienced success in most tasks without blaming each other as they did before. I remember this little episode as it is a good reminder that the outdoors is a powerful vehicle to teach values such as empathy and teamwork by providing a platform for the participants to experience intense feelings and learning from them thereafter. I thought to myself when I bade farewell to the group on the last day of the expedition - This
is the kind of character growth I would like to see in the participants and I have no regrets conducting the expedition for them again even if it means that they have to lose their direction. I believe the teachers would have experienced similar gratifying emotions as well when they shared the sentiment on how they thought that the outdoors is a good avenue of growth for the students.

**Experiential learning**

When asked for their definition of experiential learning, both teachers mentioned the term “learning by doing” in a heartbeat. They believe that students should undergo the process of experiential learning in order for learning to take place in outdoor education.

In outdoor experiential learning, learning usually occurs when the learner experiences elements of adventure as well as risk taking, and when there is interaction between the learners and educator, and the learner and environment (Itin, 1999). Using that as a guideline, I could see the elements of adventure and risks taking being embedded in the camp activities as the students partake in bouldering, rock climbing, and even the outdoor cooking sessions. Based on my observations, there were constant, perpetual interaction between the teachers and students as the teachers would talk and guide the students through the activities, checking in on them regularly. As suggested by Itin (1999), some of the key roles of the educator in experiential learning include “selecting suitable experiences, posing problems, setting boundaries, supporting learners, insuring physical and emotional safety, facilitating the learning process, guiding reflection, and providing the necessary information” (p. 93). These were demonstrated by both teachers as they planned the camp,
prepared the students adequately to meet the demands of the camp, created a safe and supportive environment, and guided the students though the various reflection and debrief sessions by asking meaningful questions. Drawing on Kolb’s (1984) work on the experiential learning cycle mentioned earlier in the literature review, these highly paralleled the ‘doing’, ‘reflecting’, ‘abstracting’ and ‘applying’ stages of the cycle.

On top of using the concept of experiential learning in the camp, I have also seen the teachers walk the talk during the abseiling and bouldering sessions where I assisted in the capacity of a staff volunteer prior to the camp. They would typically encourage the students to try out the activity and then carry out some form of reflection (usually in a written form or in a large group discussion format in the interest of time) to recap the objective of the activity at the end of the session. This is aligned with the general structure of how both teachers carried out the camp i.e. setting safety boundaries, giving lots of encouragement and guided instruction to the students during the activity where necessary, followed by a debrief session at the end of the day to ensure that the students have understood why they are doing what they are doing. However, something that did not surface strongly was the ‘applying’ part where the transference of learning into the students’ daily life comes into play. This will be discussed and explored further in the latter part of the chapter.
4.2.2 Perception of facilitation

The teachers acknowledged that other than getting the students to “learn by doing” in experiential learning, getting them to reflect is also an instrumental part of the process. According to the Association for Experiential Education, experiential learning is defined as a methodology where the teachers direct students to a particular experience and then guide them through reflection to “increase knowledge, develop skills, clarify values and develop people’s capacity to contribute to their communities” (Association for Experiential Education, 2012, https://www.aee.org/what-is-ee). The guiding part is where facilitation primarily comes into the picture as the teachers try to get the students to reflect and elicit responses based on what they have experienced.

T1 shared her idea of facilitation: “It’s getting students to sort of reflect on what they are learning, where they have come from, where they want to go, and what skills they have learned.” She also mentioned that one way to facilitate was to use informal group chats and discussions to check in on the students’ so as to know what they were thinking and feeling at that point in time. This way, it would also allow her to “modify programmes to make it more meaningful for the students” (T1).

T2 also expressed the sentiment that facilitation should be informal in nature. In addition, she responded that it should also be on-going throughout the camp. For example, she would capitalise on the wait time in between the rock climbing activity and make the effort to converse with the students individually or in small groups. She shared that:
I think it’s (facilitation) on-going and it’s informal. So you know what I would do now, like they are climbing now; I would have one-on-one conversations or small group conversations. You know, “You just finished the climb, you just finished the belay, how was it for you? What did you learn from it? Did you enjoy it? What did you find hard?”

I think that’s constantly on-going and I think facilitation is 24/7. We are always reflecting on what we do and we’re talking constantly and I know that they are reflecting in their mind? They might not be verbalising it but they are internalising their own reflection.

When probed further to understand their perception of facilitation, both T1 and T2 agreed that facilitation largely refers to helping students learn and understand the meaning behind the activities by getting them to reflect and talk about their experience. It is also a good way to allow the teachers to know what the students are feeling or thinking.

In spite of the preference for informal facilitation for T2, she indicated that it is nonetheless necessary to “formalise it” at the end of the day for better internalisation of learning outcomes. As she explained:

I guess it’s a little useful to kind of formalise it? And so you know, after a day of activities, it needs a little formal chat and getting the group together because I think it’s important that they share their reflections with the rest of the group because it has an impact on each other.
The importance of sharing the reflection with the rest of the students was echoed by T1:

For example, writing about their experience - we do that after most of their trips.
So that other students get to hear what they have been up to, what they have learned, and what they have got out from the trip. But mostly, it’s chatting.

As communicated, both teachers have somewhat similar perception of facilitation – which is to prompt the students to talk, reflect, and share on their experiences. To them, this could be achieved mainly through informal conversations and group chats, writing down their thoughts, and having a debrief session at the end of the day to help them better understand the purpose behind the activities.

I personally agree with both teachers on their idea of facilitation, especially the part on having a debrief at the end of the day. In fact, I have always felt that facilitation is the art of getting students to think out loud so they can articulate their thoughts and feelings. It is like turning their thought bubble into a speech bubble. This way, by knowing their thoughts and feelings, we (as teachers) can then further scaffold their learning and link it back to the purpose of the activity so the experience could be more meaningful for them. In other words, in the process of facilitation, the teacher is seen as a neutral guide to assist students to derive meaning from their own experiences (Greenaway, 2007) and achieve the identified goals from the activity (Thomas, 2010). Similarly, Brown (2005) also believes that the facilitator (which is the teacher) should assume a “somewhat passive or background
figure” (p. 241) in guiding the students so that they can be empowered with the appropriate amount of freedom and autonomy to take ownership of their lived experience.

To illustrate this with a personal example, I recall conducting a one-day caving programme for a class of 20 students as part of a post-exam activity. The activity took place in an artificial structure where students experience a simulation of what real caving feels like by navigating through narrow passageways in a controlled environment. They were grouped in fours and their goal was to manoeuvre through the tight spaces in complete darkness and find their way out of the artificial cave as a team. I was observing the groups throughout with the closed-circuit cameras that were installed in the artificial caving system for safety monitoring purpose. At the end of the activity, I got the students to gather in a circle and I first asked them if the experience was good. Most of them gave ‘thumbs up’ to indicate a good experience. However, there were three students who gave a ‘thumbs down’ and said they did not enjoy themselves. When asked for the reason, they shared that their respective group members left them behind and even though they managed to find their way out of the artificial cave, they did not feel good being “abandoned” and “not finishing as a team”. I remembered the look of despair and disappointment in the eyes of those students when they shared their experience. This prompted the rest to reflect on the value of teamwork and some of the students even questioned their leadership qualities, as they felt bad for leaving their friends behind in a bid to get out of the structure. I acknowledged the negative experience from the three students and proceeded to link their experience to the objective of the activity – which was to complete the task as a team. Even though it was not a bed of roses for all of them at the end, many students could better grasp the concept of teamwork after the activity. If not for the facilitation session, most of the students would have
probably gone home with a novel and thrilling experience of being in the dark without realising that they have learned something about their own leadership style, or about the value of working together.

What I wanted to express from the above example could be summarised with a quote from Greenaway (2004): “How can you advocate learning through experience without paying attention to the experience of learning?” (p. 1). Bank (1985) also reiterated the fact that an activity could become “a purely personal adventure” (p. 5) without any facilitation in the process. Hence, like the two teachers, I believe that facilitation is an essential part of the experiential learning cycle.

4.2.3 How did they facilitate?

Through my personal observations in the camp, I noticed that the teachers were constantly walking around, supervising and checking in with random groups of students during the rock climbing session, outdoor cooking and tent pitching activity. They were constantly vigilant - always watching, listening, and paying attention to the students’ physical and emotional needs. According to Sugerman et al. (2000), these are quintessential traits of a facilitator when they have their “antennas up” (p. 11) to gather meaningful information so as to engage the participants in the reflection portion based on what they have observed and heard.

For this camp, both teachers gathered their respective class in an indoor space and conducted a debrief session to facilitate what the students have learned at the end of the
first day. The two teachers brought a set of words on laminated paper to the camp for the facilitation session and got their students to sit down in a circle. When asked why they brought those, they simply quipped: “Just to spice things up!” As explained further by T1, the purpose of the cards was to get students to relate their camp experience using the words that they picked from the lot:

So I had a whole lot of different words on laminated paper. And they (the students) had to choose two words that they could relate to in terms of what the experiences were today. And they have to explain those words and how they explain their experience. It’s like that word would describe their experience for them today. And then after that, I also got them to share with me and the group what their goal would be tomorrow based on their experience today.

Figure 4. Laminated cards with words brought by the teachers to the camp
Similarly, T2 made use of the laminated cards and informed the students to reflect on the day’s experience using the words. The students in her class also shared what they have done well in, and what they enjoyed among the group. Furthermore, she prompted her students to think about the challenge they faced in the day, the challenge for tomorrow, as well as how to overcome the challenge(s). In this aspect, the two teachers believed that the activity with laminated cards is an aid to facilitation and ascertained that it is the most obvious form of facilitation for this residential camp.

Facilitation can take many forms, the simplest being a discussion between the teachers and students. Instead of simply discussing verbally in a group setting, the teachers have utilised the laminated cards as a visual aid for communication purpose. I could see that the students were relaxed during the session and had no problems sharing their thoughts and feeling using the cards they chose. The teachers would go around the circle and touch base individually with the students based on what they share with their laminated cards. The students’ eye contact were perpetually on the speaker and most of them were nodding their heads and leaning forward during the seated facilitation session. There were mostly giggles and laughter heard and I could tell that the students were engaged in listening to what their friends as well as teachers have to say based on the aforementioned physical body language observations. It was not too time consuming too, as it was a cosy group setting with one teacher to 10 or 12 students.

From my point of view, the teachers have successfully used the laminated cards to bring out the emotions and experiences from the students and generate lively discussions
amongst them. This is a form of dynamic debriefing (Greenaway, 2007), where the facilitator make use of an interesting tool for communication to allow everyone to participate in a meaningful way instead of limiting the talk time to the more reflective and articulate students. In this case, the tool refers to the laminated cards with words. Those cards piqued the interest of the students when they were first displayed on the floor and there was a clear element of novelty as they used the cards to talk about their experience.

Greenaway (2007) also pointed out that dynamic debriefing is an effective form of facilitation because the participants are involved “in expressing, examining, and exploring their experiences in ways that enable them to grown, develop, and make changes in their lives” (p. 61). This was evidently achieved with the laminated cards, as the teachers were able to evoke responses from the students and talk about it subsequently in depth. This allowed the teachers to make meaningful connections between the students’ experience and the purpose of the camp activities to help them understand themselves or their classmates better.

As a fellow secondary school educator, I could identify with why the teachers brought the visual aids along to get discussions or conversations flowing for the facilitation session. In her book ‘Facilitation techniques’, Hogan (2003) highlighted several advantages of using visual tools and some notable ones include “helping participants whose learning style is more visual than auditory, enabling them to feel that their voices are heard and acknowledged by the group and encouraging more people to participate” (p. 89). Dickson (1996) also strongly encouraged facilitators to use a variety of creative and innovative
debriefing methods based on the learning styles of the participants to enhance the effectiveness of the facilitation. Similar to what the teachers have used, below is an example of a facilitation tool that I have successfully used before in a group setting:

**Figure 5. Another example of a facilitation tool - ‘Mood Sticks’**

It was indeed easier to tap on a tool to get the students to talk, especially for the quieter, and non-articulate or non-participative students. This has helped to maximise participation as the students have something to rely on to trigger their recollection of what they experienced in the day. Personally, I found it effective because the students could express their thoughts and feelings about the activity using the ‘mood’ that they chose. Very naturally, they would then proceed to describe the reasons why they chose the particular
‘mood’ without much probing. This allowed me to hear their voices and understand their fears, concerns, successes or accomplishments. Knowing those thoughts, I could therefore work closely together with the students to help them “construct meaning from their experience and learn to apply this meaning to other areas of their lives” (Sutherland, Stuhr, & Ayvazo, 2016, p.235) based on what they have shared.

Even though using facilitation tools to elicit responses from the students in a group setting has worked for the two teachers and myself, Brown (2002) and Hovelynck (2003) cautioned that there is a chance of the teachers creating their preferred version of reality by publicly re-voicing the students’ sharing, especially so in a circle time format. By allocating turns at circle talk, there is a tendency for the teachers to paraphrase what the students actually meant into acceptable answers (Brown, 2002). Therefore, we must be careful not to alter the responses of the students such that they become steered towards our intended meaning for them, instead of retaining the organic essence of the students’ voices and helping them learn through what they felt or thought originally.

On top of using the laminated cards as a facilitation tool, T2 shared that she would also incorporate peer reflection in the facilitation process to get students to talk about their experience with their friends. She felt that this would provide them some time to think about their reflections and thus be able to write them down easily after they have verbalised their thoughts with someone else:

   I also get them to talk to each other, so abit of peer reflection? And I often do that before they start writing because you know there’s a written component (in NCEA assessment), and I think it’s easier for girls in particular, to verbalise their thoughts
and then once they have verbalised it, we make them internalise and then process it into written form. Particularly for girls that are less able in writing.

This is in line with one of the methods of dynamic debriefing known as the “1-2-All” (Greenaway, 2007) where “1” stands for solo thinking and reflection time, “2” refers to talking in pairs with their peers and “All” just means having a whole group discussion like the circle time they had with the laminated cards. These various techniques mentioned so far served to highlight the good facilitation practices carried out by the teachers during the camp.

Nevertheless, both teachers concurred that facilitation was not just restricted to the execution of the camp itself in the broader sense. It also encompassed the process of guiding the students before the camp with the preparation culminating to it. For instance, they have been frontloading the technical knowledge in school during climbing lessons for the students. They also conducted pre-camp activities to educate the students on a climbing code of conduct and environment ethics. These are some examples that the teachers deemed as facilitation before the camp and this notion is congruous with Priest, Gass and Gillis (2000) definition where facilitation refers to "anything and everything you [the facilitator] do before, during, or after the learning experiences to enhance people's reflection, integration, and continuation of lasting change" (p. 19). On this note, it is important to clarify that even though the teachers believed that facilitation was on-going and continuous before and after the camp, they also believed that the bulk of the facilitation was carried out during the camp itself, especially so during the debrief session where it was “formalised” and had the most potential for reflection as well as learning to take place. This
was gathered mainly from their perception of facilitation described in 4.3.2 and from their sharing of the facilitation session using the laminated cards. By articulating their notion of facilitation and how they carried out facilitation in the camp, this part has also addressed one of the research questions on what constitutes facilitation from outdoor education teachers in an outdoor adventure context.

Interestingly, T2 also mentioned that the way she facilitates is largely dependent on the age group of the students. She said that there is usually a progressive shift in facilitation style from junior year students to senior year students. For example, her facilitation would change from one that is more teacher-led to one that is more student-led as the students become older. Typically, there would be more guidance, role modeling and “hands-on facilitation” for junior year students as opposed to senior year students where it is more self-directed. This is because she believes that it is pivotal to empower the senior students with leadership role hence there should be less guidance from the teacher.

This concept was also in line with T1 as she informed that she would usually get her senior year students to have a go at facilitating in camps:

So in Year 13 PE, I allocate leaders for each half day so each student work with a partner, and they lead half a day. And so in the evening, their job is to facilitate a group discussion around what they have enjoyed and what they have learned that day. And what their goal might be for the next day.
A growing body of literature have asserted that the practice of facilitation in adventure-based education should ideally be understood as guided reflection that promotes student-centered learning rather than being entirely driven by the teacher (Estes & Tomb, 1995; Priest & Gass, 1997; Brown, 2004; Sutherland, Ressler & Stuhr, 2011). What the two teachers have communicated is consistent with the idea that facilitation also involves taking a step back and allowing the students to take charge of their own learning at times. This is on the pretext that the teachers have acknowledged that there is a need for teacher-driven facilitation before they exercised their discretion in choosing to adopt a “student-driven” facilitation approach based on the students’ age and ability level.

As T2 elaborated:

So my facilitation is, if you came at the start of the year it would be very teacher-driven, teacher-directed and then very quickly, I turned it around and flipped it so it’s student-driven. And it depends on the age group. I know when we get up to year 13, we try and get them to do more leadership roles so that they can take up the leadership role and do the planning. And I guess we are facilitating from a distance just to make sure that at the end of the day - you know safety is paramount - and that we have covered all that. It’s nice to see senior students, particularly outdoor ed students just starting to plan their own camps. And yes I guess we are facilitating, but less and less.

Here, we can see that the teachers have provided some opportunities for students to facilitate their own learning experience by giving them the role to facilitate or co-facilitate in the planning as well as execution of camp programme. This finding parallels Estes’s (2004) recommendation for more student-centered facilitation practices in adventure
education so as to ensure that “student autonomy, critical thinking and self-reliance can be encouraged throughout the action and reflection cycle” (p. 151).

However, in spite of the inclination towards student-centered approaches in facilitation (Brown, 2002; Estes, 2004; Hovelynck, 2003), there have been critiques in adopting a full learner-centered educational approach in the general scope of education. Kirschner, Sweller and Clark (2006) argued that instructional approaches that are minimally guided by teachers could be less effective and could “have negative results when students acquire misconceptions or incomplete or disorganized knowledge” (p. 84), especially if the students are beginner learners in the subject matter. Specifically in the outdoor education context, in a recent review and discussion of pedagogies, Thomas (2015) interviewed six experienced outdoor education teachers to explore the types of teaching and learning that could add value to the current practices in outdoor fieldwork. On the part of engaging a student-centered approach for experiential learning in outdoor education, he concluded that:

The shift to a more learner-centered approach does not abdicate the outdoor education teacher of responsibilities for teaching and student learning. It is a matter of fine balance to engage students in side-by-side learning and provide the requisite level of guidance and support to facilitate success. (p. 120)

The findings from the teachers’ interviews also informed that there should still be some form of guidance from them to aid the students in acquiring the necessary skills, especially in the initial stages of learning. Hence, the two teachers’ take on a progressive shift of
facilitation style with varied amount of guidance based on the learner’s profile corresponded with Thomas’s (2015) proposition for a more balanced approach. By understanding the kind of facilitation the teachers adopt for their students and how they facilitate during the camp, this section has addressed the research question on under what circumstances do teachers use facilitation techniques to assist students’ learning.

On a separate note, the two teachers also brought up the importance of cultivating a positive and supportive climate for facilitation to take place. When talking about how they try to get the students to reflect as part of the facilitation process, they placed strong emphasis on the need to build good relationship with the students and understanding their needs. Phrases like “having good rapport with students”, “being supportive and positive”, “encouraging them” were frequently mentioned. With these in place, the teachers felt that the students could therefore feel safe and comfortable to talk about their experience – whether the experience was positive or negative.

As T2 summarised it:

Yeah, it’s that relationship with the students. I hope you have seen in this camp that both T1 and I have good rapport with the students in our classroom cause I know we worked hard at the start building the rapport with the students, with each other in the classroom. So I think if we bring in that atmosphere in the classroom, you know these girls are more willing to give things a go. And if they didn’t trust me as a teacher or trust each other in the classroom, they will be very disengaged. That, to me is relationship with students, and probably is number one.
This finding suggests that building good rapport and relationship between the teachers and students is unequivocal in the process of facilitation. This is not surprising as several keystone studies in facilitation literature have established that a favourable climate is necessary for learning to occur. This could be achieved when the facilitator puts in effort to build positive and meaningful connections with the participants so that they could trust the process and share deep reflections without qualms (Priest, Gass, & Gillis, 2000; Greenaway, 2007; Thomas, 2015). There was a strong agreement between both teachers that being supportive and forming good relationship with their students was imperative in the facilitation process. This is also aligned with Beames’s (2006) suggestion “that facilitators need to get to know the participants well enough to be able to help determine just what they are after, and help them get it” (p. 10).

I also observed that the teachers were sincere in their interaction with the students and genuinely concerned about them. I remember a particular incident where the teacher intentionally positioned herself within the vicinity of a student, as she was well aware that the student had a major fear of heights. Indeed, the student panicked when she was halfway throughout the route and was on the verge of breaking down. Thankfully, the teacher was there and managed to calm the student down and encouraged her throughout the rest of the climb. Positive phrases like “You got this”, “Way to go!”, and “Good girl!” could be heard. The student managed to finish the climb eventually despite the initial scare and came down thanking the teacher immensely. Furthermore, both teachers knew all their students’ names, personalities and background by heart and I know this because they could easily answer the random questions that I enquired of any student. The smiles and laughter from the
banters exchanged between the teachers and students were other signs of good rapport that I observed. There was a constant good flow of energy and these were telling of the conditions that were conducive for facilitation as I could see that the students generally had a sense of belonging and were non-patronising in their reflections (Greenaway, 2018). These could be attributed to the positive climate that the teachers created in the camp because of their good rapport with the students.

4.2.4 Why did they facilitate?

The two teachers believe that it is vital to facilitate in outdoor camps and that there is value in facilitating the students’ learning. In general, they felt that facilitating would help students to reflect and make sense of what they have learnt. Moreover, hearing what the students say would also allow the teachers to receive feedback to modify and improve the programme if necessary. Other than adding value to the participants’ experience, one other benefit of good facilitation includes allowing the facilitator to evaluate the effectiveness of a programme by obtaining information to make the necessary improvements (Greenaway, 1992).

As one of the teachers explained:

I use their reflections for my next activity, whether it’s with the same group of students or it’s another group of students. Because it’s students’ voice and students’ feedback coming back to me and that’s really important, because sometimes as an adult, or as a teacher, our perception and students’ perception can be quite different.
So without having that student voice and student reflections, you don’t know if you’re meeting the needs of the students. (T2)

Likewise in this regard on receiving feedback from the facilitation session, T1 shared the following:

And also quite often I would ask what were the things that they enjoyed and what were the things that they didn’t enjoy because for us as teachers, that can help us modify programmes if we need to make it more meaningful for the students.

T1 also highlighted that hearing what the students have to say made her feel “really great!” She expressed her joy when she got to hear the students’ experience as they picked the card and spoke around the circle. Apart from most students talking about acquiring rock climbing skills, she was very pleased when students talked about working together, supporting and encouraging their fellow classmates. Hearing what the students say has given her a great sense of satisfaction and made her feel like the effort put in to plan the camp was worth it.

An excerpt from the interview with T1 is as follow:

Int: When you facilitate using the activity with words, what do you feel when you get to hear the students’ experiences?

T1: It makes me feel really great! Like a lot of them talked about their goals and a lot of it was about climbing higher. And one particular student talked about how she wanted to support and encourage more people, not just the same people she was
working with; she wanted to mix and work with different people in the class and I thought that was awesome. It makes me feel really good that they actually do reflect on what they are learning aye? They are actually taking on what they are getting out of this experience. So it makes me feel that it’s worthwhile what we’re doing.

Furthermore, she also brought up the importance of sharing her personal thoughts and feeling with the students, instead of just hearing from them. T1 went on to explain what she meant by that:

I want them to know how I feel about the experience as well. I just want them to know how proud, or what I see them achieving because sometimes I think it’s nice to hear it from a teacher and to know that we care, and get really pleased when we see their progress.

The teachers added that facilitating the students’ learning and getting them to share their experience has helped to improve the social skills of the students. This was also one of the reasons why they facilitate in camps – to improve the communication skills of the students as they get more confident and comfortable with regards to talking and sharing amongst the group.

When asked how they know if the students have learnt from the facilitation, the teachers responded that it would be mainly through observing and “watching for progress in their physical skills”, and “hearing the students’ verbal responses.” The teachers surmised that it was easier to eyeball any internalisation and improvement in technical climbing skills as
compared to acquisition of personal skills as this process would usually involve sharing from the students. Regardless, they felt that the students have gained interpersonal skills such as communication and social competence skills from the camp based on what they shared during the facilitation session.

4.2.5 Barriers to facilitation in the outdoors

Towards the end of the interview, I asked the teachers what were some barriers that might limit or hinder facilitation in the outdoors. They spoke about some of their concerns at length and the main barriers were time, students’ willingness to participate in activities, and the transference of knowledge and skills after the camp. Safety management, staffing resources and financial cost were some of the minor barriers mentioned.

Time

T1 shared her concern about not having enough time to facilitate the students’ learning as she felt that it was equally important to ensure that they have adequate activity time. She also noted that the students might not be ready physically or emotionally to share or talk about their experience after spending time and energy on the many activities in the camp: “Sometimes when you’re full on doing lots of activities, and then you’re doing the tenting, and then cooking, and sometimes the students are tired… they just want to chill.” (T1)

I could attest to this concern as well because the camp programmes are usually so packed with activities that we have to compromise on some talk time so as to maximise the participation time for the students. This is especially so for high elements and challenge
rope course where the students require a relatively large amount of time to gear up, belay and complete the various obstacles. By the time the rope course is completed, there would be hardly any time (or energy from the students) left to reflect upon the experience even though there were some teachable moments that could be capitalised on for reflection. Thus, in the interest of time, I would conduct the facilitation at the end of the day when all activities have ceased. This worked, but the “recency effect” might be lost as the memories and experience might have escaped the students by the end of the day.

Students’ willingness
T2 mentioned that one of the barriers for her was the students’ willingness to participate and open up on what they think and feel. She described the difficulty of changing a mindset if the student had a negative perception towards the camp to begin with. Thus, it would be hard to facilitate as there would be resistance to learn or participate from the students’ side. In cases like these, T2 believed that change had to come intrinsically within the student hence she will likely pass the ownership of learning to the students by giving them more time and space to adapt and adjust their mindset.

Transference after camp
One of the challenges shared by T2 included the difficulty of transferring the skills and knowledge gained from the camp experience to other parts of the students’ life after the camp. She acknowledged that this was one of the areas where she could improve as an outdoor education teacher as she mentioned that she “don’t do a lot in that area”. When asked how she would try to mitigate the challenge, T2 shared:
So for my outdoor education classes, I guess it’s probably by role modelling and talking to the girls back in school - what are the skills that you have learned, how can you now use it when you find it challenging in Math, or challenging in French? To overcome and to improve and to make progress, like being explicit to the girls at this level I think. And get them to reflect and see how they can use the skills like say you had a challenge in the outdoors, what did you do to overcome that challenge, how did you do it, and now how can you use that skill when you’ve got a math problem that you can’t do, instead of giving up, how can you preserve and keep trying.

In general, the barriers mentioned by the teachers were not unanticipated. In exploring the various roles outdoor education teachers have to fulfil as part of their job scope, Thomas (2008) described some of the difficulties faced by the teachers as they try to juggle the different demands. I quote Thomas (2008):

A facilitator is commonly defined as a substantively neutral person who manages the group process in order to help groups achieve identified goals or purposes. However, outdoor educators rarely experience the luxury of only managing the group process, because they are typically responsible for the provision of leadership, skill instruction, and safety management. (p. 239)

As the two teachers shared, time is one of the key challenges as the camp would have various activities lined up and they have to manage the risk and safety factor, while concurrently ensuring that students were applying their technical skills correctly. In the
event that there is inadequate time for facilitation in the program itself, T1 disclosed that she would conduct facilitation on the following day or even back in school when they have the opportunity to do so:

Sometimes, I might do it (facilitation) the next day if we ran out of time. It depends actually on the camp or whether it’s the end of the unit. Like sometimes for biking camp, we don’t have time do it so we’ll do it back in our first lesson when we get back.

While facilitation has proven to be useful and valuable for the teachers in eliciting meaningful responses from the students, there are existing, practical challenges that they experienced in ensuring the timely incorporation of facilitation techniques.

Summary

Both teachers have fairly similar teaching philosophies and perception of experiential learning for students in the outdoors. They also value the idea that conducting facilitation in camps helps the students learn better. It can be seen that the two teachers have put in deliberate effort to prepare the students before the camp. During the camp, they guided the students to learn and reflect after the activities with various techniques, the more notable ones being the use of the facilitation tools (laminated cards), informal conversations as well as reflection booklets.
Their jovial and friendly disposition also made it easy for the students to relate and build rapport with them. This has helped the teachers to understand the students’ needs better and elicit genuine responses from them during the facilitation session.

However, as they have been busy with other activities in school, they shared that they hardly have time to read up or learn new knowledge on facilitation. Specifically, they mentioned that they would like to learn from the sharing of techniques from other practitioners so as to build up a repertoire of facilitation skills for themselves.

4.3 Research questions revisited

This chapter has reported findings associated with the three research questions proposed to understand how teachers’ facilitation techniques could assist students’ learning in an outdoor adventure camp. The findings from the students’ voices provide evidence on the perceived learning outcomes that arose from the teachers’ facilitation in the camp, and the teachers’ voices have addressed what constitutes facilitation in an outdoor setting and how these pedagogical techniques were administered in the camp.

After examining and discussing the students and teachers’ voices separately, the next section will consolidate both voices to establish how the teachers’ facilitation assists the students’ learning. Two notable themes have emerged. Each of these themes: (1) Effectiveness of facilitation; and (2) Learning as a result of the facilitation, are reported and summarised independently with connections between them also noted.
4.3.1 Effectiveness of facilitation

The purpose of this study was to examine how outdoor education teachers facilitate in a residential camp setting and investigate the impact it has on the students’ learning outcomes. The findings revealed that facilitation conducted by the teachers is typically ongoing and continuous in nature, and mostly administered at the end of the day in the form of a debrief session. There were various techniques used by the teachers to facilitate the students’ learning and the use of the visual tools (laminated cards with words) was identified as the most effective facilitation from both teachers’ and students’ perspective. It has successfully allowed the students to “think out loud” and this enabled the teachers to probe deeper into their reflections and link their experience to the objective of the activity to make it more meaningful for them. On this note, it is crucial to take into consideration other key factors such as cultivating a supportive climate and building positive relationships to accentuate the effectiveness of using facilitative tools.

Effective facilitation aims to engage the participant as an active, aware and self-directed individual to construct new meaning in the process of learning from the experience (Greenaway, 2007). From the findings, we could see that the teachers’ actions were primarily student-centered, providing structure without dictating responses as the students were given the autonomy to share freely on what they felt or thought. This has allowed the students to reflect genuinely upon what they have done and to make meaning of their own lived experience. The students have also become more aware of their own thoughts and emotions, as well as that of their friends when they shared their experience using the laminated cards, thereby learning more about themselves and, of others. It is therefore reasonable to say that the facilitation techniques used by the teachers is effective for
secondary school students to learn in a camp setting. The next theme will summarise what the students have learned from the teachers’ facilitation.

4.3.2 Learning as a result of the facilitation

The personal and social development learning outcomes for the students which stemmed from the facilitation essentially paint outdoor education as personal development education, a finding consistent with the inclusion of outdoor education in the Health and Physical Education key learning area as mentioned in the literature.

Through the five perceived ways of teachers’ facilitation (demonstration and guiding, use of laminated cards, timely questioning, journaling in the reflection booklet and by being supportive as well as encouraging) in the camp, the students expressed that they have gained a deeper understanding of their own feelings and learning, as well as getting to know their friends better, especially when the laminated cards with words were used. The students shared that they improved mainly on their level of self-confidence and communication skills with others when they were given the opportunity to articulate their thoughts and feelings in the group setting through the teachers’ facilitation.

In essence, the examples of practice and insights from the teachers in this study signify that facilitation techniques such as using the laminated cards together with meaningful questioning have largely helped students to acquire communication and social skills. Other than the acquisition of these skills, the increase in depth of students’ reflections was also one of the main outcomes from the teachers’ facilitation. This is attributed to the verbal
questioning used to probe insights from what the students shared during the debrief session with the laminated cards. By delving into a facilitated session and exploring the learning outcomes the students gained, the findings have provided evidence in specific areas of learning for the students, namely in the intrapersonal and interpersonal skills’ aspect. This study has therefore provided some form of qualitative data to better understand the role of facilitator in enhancing learning for youth in an outdoor adventure camp setting.
Chapter 5: Conclusion

In this chapter, some of the implications for theory and practice are discussed before exploring suggestions for future direction in the field of facilitation research. Finally, I conclude the study with my personal reflections as an outdoor education teacher integrated with the perspectives of academia.

5.1 Implications from the research findings

Overall, the findings provide a number of theoretical and practical implications for teachers, students and the outdoor education programmes and the community at large.

5.1.1 Implications for theory

More often than not, the notion of facilitation is strongly associated with debrief and reflection at the end of an activity. Other than debriefing the students, the study has highlighted that facilitation is also dependent on the selection of the activities and the pedagogical strategies employed in its execution. This includes the frontloading of knowledge before the camp, facilitating throughout the camp through informal chats and formal debrief sessions. Moreover, the prior planning and framing of the camp experience illustrates the intentionality of teachers in facilitating students’ learning. This supports Beard and Wilson’s (2013) idea of experiential learning where the teachers continually facilitate the students’ experiences and lever on teachable moments to impart important skills and values through questioning and reflection. The findings of the study also support
Greenaway’s (2007) attributes of effective facilitation where the facilitation techniques used by the teachers have successfully added value to the learning experience of the students and developed communication and social skills amongst them.

However, the practice of facilitation in the outdoor education field has been critiqued by Brown (2005) and Hovelynck (2003) as they argued for a highly student-centered approach where students should be fully empowered to learn from their experiences with minimal interference and guidance from the teachers. In short, the authors believed that facilitation does not necessarily mean getting the students to speak about their experience and then paraphrasing what they said to steer them towards the outcomes that the teachers had in mind instead of what the students actually experienced. Nonetheless, the present findings have described the prevalence and importance of facilitation in camp programs as students responded positively to the various facilitation techniques used by the two teachers. The teachers have also demonstrated that facilitation is still a very useful tool to generate conversations and discussions for the students to help them learn meaningfully from the activities in the camp. Despite the critiques and questions raised, facilitation still remains an important part of teaching adventure for many outdoor education practitioners.

5.1.2 Implications for practice

Implications for students

The facilitation techniques used by the teachers have helped in linking the objectives of the various activities to the learning progression of the students and empowered them to move forward with their own learning. The learning objectives were sharpened and focused
through the teachers’ facilitation so students were able to understand the purpose behind the activities that they had undergone in the camp. In addition, facilitation was also a great way of modeling best practices to the students. As they were exposed by the teachers to several ways of being facilitated in the experiential learning process, the students could therefore gain a better understanding of how to facilitate themselves. Findings from this study have asserted that the presence of a healthy and positive pastoral care atmosphere is key to allowing the students to experience effective facilitation. The role of relationship building between teachers and students is thus instrumental in engaging the students in the process of facilitation (Priest, Gass, & Gillis, 2000; Greenaway, 2007; Thomas, 2015).

Implications for teachers

By undertaking this research study, I have observed a range of ways and techniques used to engage students in meaningful learning. Teachers understood the needs of the students better through informal conversational check-ins and formal group sharing sessions. Knowing the students’ thoughts and feelings enabled the teachers to draw attention to the specific objectives of the activity, linking the students’ experience with the aims, thereby making it more meaningful for them. Moreover, hearing their thoughts and voices clarified doubts on the programme proceedings and allowed teachers to tailor and make necessary changes to suit their learning needs. Lastly, interaction through facilitation also reaffirmed the teachers that the effort put behind the camp preparation and execution was worthwhile, thereby increasing the sense of job satisfaction for them.
The research suggests that facilitation is an important pedagogical aspect for outdoor education teachers in helping students to learn, especially with innovative debriefing approaches to elicit responses from the students. In this regard, the usefulness of the laminated cards with words came out strongly from the findings and gained good reception from the students as they enjoyed the activity instead of going through the verbal, one-dimensional group discussion time. The teachers were also genuinely interested and heartened to hear the responses from the students following the successful use of the laminated cards. This has promoted discussion between them to utilise the tools and generate excitement in its use for other facilitation sessions in the future. Knowledge of the use of pedagogical tools is a component of the outdoor education community of practice. This is a good reminder that a simple tool like a stack of cards can enhance the effectiveness of the facilitation. Sugerman et al. (2000) and Hogan (2003) offer a plethora of other facilitative tools and methods that are creative, convenient and cost-effective in their books.

**Implications for outdoor education programmes and the community at large**

The findings have highlighted the value of facilitation and talk time in the form of debrief sessions without compromising on activity time for the students in an outdoor adventure camp. The outcomes suggest that it would be useful for camp programmes to be planned and designed with the inclusion of facilitation time in mind. As one of the teachers shared, one of the things she wanted to improve on was to increase her repertoire of facilitation skills and knowledge as she felt that her expertise in this area was quite limited. Thus, facilitation workshops or sharing sessions could be conducted to enhance the professional development of the outdoor education teachers to strengthen their mastery in facilitation
techniques. Conversations in the outdoor education community around facilitation should be further supported and encouraged. This way, teachers would perhaps feel more confident in facilitating students’ learning with a wider pool of tools and an arsenal of facilitation knowledge and techniques on hand.

5.2 Directions for future research

This study has essentially supported the notion that facilitation is appropriate and effective to use as a pedagogical tool in residential camps. This is mainly because of the concrete and tangible nature of the adventure activities that allowed the teachers to facilitate throughout the camp with various techniques. However, as mentioned in the literature review, this may not be entirely applicable for activities that involve creative responses or deep reflections where longer-term processing is needed.

An example would be the undertaking of a solo outdoor expedition where the participant attempts to self-facilitate his or her own experience without the guidance of a teacher, leader or instructor. Very often in such expeditions, the spiritual and environment connection between the place and the person are usually left to the individuals to process themselves. Guided facilitation in a group format or circle time might have a ‘backfire’ effect in these cases where the individual may feel like they are forced or contrived to talk about their emotions when it could be a powerful learning experience if they have had facilitated their experience themselves. Thus, in those open-ended activities where an individual seeks to process their own learning in a singular environment, future research could therefore be conducted to determine the role that facilitation may play in helping
them make sense of the experience. On this note, possibilities of developing hybrid type pedagogies involving elements of self-facilitation together with guided facilitation could also be explored to cater to the diverse range of learning needs and settings of a residential camp.

This study is a qualitative research involving one secondary school in New Zealand. The findings and interpretations of the research project are specific to the secondary school. Thus, one limitation is that the findings may not be generalised to other schools in New Zealand as they may only provide a partial insight into the teachers and students being studied at a particular time and circumstances. Hence, future research under study in the same school may not yield the same findings because the staff, student profiles and structure of the outdoor education programme may be different.

In conclusion, it is not sufficient to base facilitation - an important aspect of experiential learning in adventure education on the results of a two-day-one-night residential camp. This is accepted as another limitation of the research. Therefore, the need for more research activity in this area is desirable in order to inform the field of the ways in which facilitation applied in an outdoor setting is beneficial for those who take part, in the various circumstances and different forms of outdoor adventure education.
5.3 Final reflections

The intent of this study was to conduct an in-depth exploration of the impact of teachers’ facilitation techniques on students’ learning. The results provided evidence of the merits of having facilitation in camps to allow students to articulate their thoughts and feelings, especially with the use of simulating, creative tools that introduce some novelty for the students. It has also provided case study descriptions in the field of facilitation research in an outdoor adventure setting and shed some light on the challenges experienced by the teachers in the process of facilitation.

Through this study, I hope that fellow teachers, leaders and outdoor education practitioners can see the value of facilitation, especially for youth in an outdoor residential camp. This way, by speaking with them and hearing their thoughts and feelings, we could therefore scaffold their learning more meaningfully instead of simply “letting the experience speak for itself” and not knowing what they have actually learned from the activity. This is not to say that letting the experience speak for itself does not have a place and time (as proven otherwise from the literature on self-facilitation in solo expeditions) but rather, this study is set in the context of exploring in detail the specific outcomes from that could arise from teachers’ facilitation. Hence, by examining and understanding how the facilitation techniques used by the teachers assisted the students’ learning in a residential camp, this study has provided research evidence that could potentially bridge the existing gap between the role of the facilitator and learning for youth in outdoor education programmes.
The autoethnographic nature of this research process has spurred me to reflect and dig deep about how I can further improve my facilitation approach, especially in the transference of learning after the camp. More intentional effort and continuity should be exerted to continually improve and understand how facilitation works in our postmodern society. The conversations with the two teachers have served as a catalyst for them to think about their personal facilitation philosophy and practice. On my part, I am delighted to have triggered some discussion in this area and pass on the curiosity as well as interest in the area of facilitation to like-minded outdoor education teachers in New Zealand.

In a fast-paced, activity-packed camp curriculum in Singapore where teachers often value activity time more than talk time (facilitation), I contend that it is indeed possible to balance out activity time with a healthy amount of facilitation time as seen from the practice of the teachers in the camp. It is not the aim of the study to disregard activity time in adventure activities but instead, to exemplify the value of facilitation and the role the facilitator plays in helping students learn better through their experiences. That said, I am happy to be able to bring back qualitative evidence from this study to substantiate the role of facilitation in an adventure camp. With this, I hope that I can continue to spread the joy of facilitation to more teachers in Singapore and convince them that it is salient for the students to “think out loud” so we can help them learn with a greater sense of meaning and purpose.
References


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Appendices

Appendix A. Information sheet for research project

*Teachers’ Facilitation on Students’ Learning in a Residential Camp Experience*

INFORMATION SHEET FOR

STUDENTS, TEACHERS AND PARENTS/GUARDIANS

Thank you for showing an interest in this project. Please read this information sheet carefully before deciding whether or not to participate. If you decide to participate we thank you. If you decide not to take part there will be no disadvantage to you and we thank you for considering our request.

**What is the Aim of the Project?**

The project aims to examine instances of facilitation techniques used by outdoor education teachers in the form of group debriefs, metaphors, reflection sessions or informal conversations with the participants during outdoor education activities. The information will help researchers understand more about the impact of teacher’s facilitation on assisting students’ learning in an outdoor adventure camp experience.

**What Type of Participants are being Sought?**

The participants we are looking for will be the students who attend the residential rock climbing camp in 2018. In addition, we would like to observe and talk to the camp teachers as well as student participants.
**What will Participants be Asked to Do?**

Should you agree to take part in this project, you will be asked to give approval to be video recorded while engaging in outdoor education activities on camp. We would also like to interview some of you, for about 10 to 15 minutes, about your experiences. Please be aware that you may decide not to take part in the project without any disadvantage to yourself of any kind.

**What Data or Information will be Collected and What Use will be Made of it?**

Video recordings will be taken of some parts of the outdoor activities. These will then be analysed for the different types of facilitation techniques used by the teachers and when they are administered in the camp. We will then conduct 10-15 minute interviews to determine how and what the students felt in a facilitated session during the camp. Additional questions and interviews will be conducted with the teachers on how they have facilitated the learning for the students as well as what they have observed throughout the camp. The interviews will be recorded for later analysis.

The data collected will be securely stored in such a way that only those mentioned below will be able to gain access to it. Data obtained as a result of the research will be retained for **at least 5 years** in secure storage. Any personal information held on the participants including audio recordings may be destroyed at the completion of the research even though the data derived from the research will, in most cases, be kept for much longer or possibly indefinitely. Please be aware that we will make every attempt to preserve your anonymity.
Participants will be able to correct or withdraw their information at any point prior to 1st October, 2018. Participants may also request to be given a copy of the results found in this study once it is completed (approximately December, 2018).

This project involves an open-questioning technique. The general line of questioning includes instances of facilitation techniques used by the teachers during or after the outdoor activity, as well as seeking the perceptions of the students in a facilitated session. The precise nature of the questions which will be asked have not been determined in advance, but will depend on the way in which the interview develops. Consequently, although the University of Otago Human Ethics Committee is aware of the general areas to be explored in the interview, the Committee has not been able to review the precise questions to be used.

In the event that the line of questioning does develop in such a way that you feel hesitant or uncomfortable you are reminded of your right to decline to answer any particular question(s) and also that you may withdraw from the project as outlined below.

**Can Participants Change their Mind and Withdraw from the Project?**

You may withdraw from participation in the project at any time and without any disadvantage to yourself of any kind.
What if Participants have any Questions?

If you have any questions about our project, either now or in the future, please feel free to contact either:-

*Sheryl Seow* and *Associate Professor Mike Boyes*

Department of Physical Education

Sport and Exercise Sciences

University Telephone Number: 479 9122

University Telephone Number: 479 9122

Email: seosh415@student.otago.ac.nz

Email: mike.boyes@otago.ac.nz

This study has been approved by the University of Otago Human Ethics Committee. If you have any concerns about the ethical conduct of the research you may contact the Committee through the Human Ethics Committee Administrator (ph +643 479 8256 or email gary.witte@otago.ac.nz). Any issues you raise will be treated in confidence and investigated and you will be informed of the outcome.
Appendix B. Consent form for students

Teachers’ Facilitation on Students’ Learning in a Residential Camp Experience

CONSENT FORM FOR STUDENTS

I have read the Information Sheet concerning this project and understand what it is about. All my questions have been answered to my satisfaction. I understand that I am free to request further information at any stage.

I know that:

1. My participation in the project is entirely voluntary;

2. I am free to withdraw from the project at any time without any disadvantage;

3. Personal identifying information including audio recordings may be destroyed at the conclusion of the project but any raw data on which the results of the project depend will be retained in secure storage for at least five years;

4. This project involves being video recorded and may involve a free-flowing interview. The general line of questioning includes your perceptions of receiving facilitation from the teachers during or after the outdoor activity throughout the residential camp. The precise nature of the questions which will be asked have not been determined in advance, but will depend on the way in which the interview develops. In the event that
the line of questioning develops in such a way that I feel hesitant or uncomfortable I may decline to answer any particular question(s) and/or may withdraw from the project without any disadvantage of any kind.

5. The results of the project may be published and will be available in the University of Otago Library (Dunedin, New Zealand). Every attempt will be made to preserve my anonymity.

I agree to take part in this project.

.............................................................................   ...............................  
(Signature of participant)     (Date)  
.............................................................................
(Printed Name)

This study has been approved by the University of Otago Human Ethics Committee. If you have any concerns about the ethical conduct of the research you may contact the Committee through the Human Ethics Committee Administrator (ph +643 479 8256 or email gary.witte@otago.ac.nz). Any issues you raise will be treated in confidence and investigated and you will be informed of the outcome.
CONSENT FORM FOR PARENTS/GUARDIANS

I have read the Information Sheet concerning this project and understand what it is about. All my questions have been answered to my satisfaction. I understand that I am free to request further information at any stage.

I know that:

1. My child’s participation in the project is entirely voluntary;

2. I am free to withdraw my child from the project at any time without any disadvantage;

3. Personal identifying information including audio recordings will be destroyed at the conclusion of the project but any raw data on which the results of the project depend will be retained in secure storage for at least five years;

4. This project involves being video recorded and may involve a free-flowing interview. The general line of questioning includes your child’s perceptions of receiving facilitation from the teachers during or after the outdoor activity throughout the residential camp. The precise nature of the questions which will be asked have not been determined in advance, but will depend on the way in which the interview
develops. In the event that the line of questioning develops in such a way that my child feels hesitant or uncomfortable he/she may decline to answer any particular question(s) and/or may withdraw from the project without any disadvantage of any kind.

5. The results of the project may be published and will be available in the University of Otago Library (Dunedin, New Zealand).

I agree for my child to take part in this project.

.............................................................................   ........................................
(Signature of parent/guardian)     (Date)

..............................................................................
(Name of child)

This study has been approved by the University of Otago Human Ethics Committee. If you have any concerns about the ethical conduct of the research you may contact the Committee through the Human Ethics Committee Administrator (ph +643 479 8256 or email gary.witte@otago.ac.nz). Any issues you raise will be treated in confidence and investigated and you will be informed of the outcome.
Appendix D. Consent form for teachers

Teachers’ Facilitation on Students’ Learning in a Residential Camp Experience

CONSENT FORM FOR TEACHERS

I have read the Information Sheet concerning this project and understand what it is about. All my questions have been answered to my satisfaction. I understand that I am free to request further information at any stage.

I know that:

1. My participation in the project is entirely voluntary;

2. I am free to withdraw from the project at any time without any disadvantage;

3. Personal identifying information including audio recordings may be destroyed at the conclusion of the project but any raw data on which the results of the project depend will be retained in secure storage for at least five years;

4. This project involves being video recorded and may involve a free-flowing interview. The general line of questioning includes your perceptions of conducting facilitation for students during or after the outdoor activity throughout the residential camp. The precise nature of the questions which will be asked have not been determined in advance, but will depend on the way in which the interview develops. In the event that the line of questioning develops in such a way that I feel hesitant or uncomfortable I may
decline to answer any particular question(s) and/or may withdraw from the project without any disadvantage of any kind.

5. The results of the project may be published and will be available in the University of Otago Library (Dunedin, New Zealand). Every attempt will be made to preserve my anonymity.

I agree to take part in this project.

.................................................................   ................................
(Signature of participant)               (Date)

.................................................................
(Printed Name)

This study has been approved by the University of Otago Human Ethics Committee. If you have any concerns about the ethical conduct of the research you may contact the Committee through the Human Ethics Committee Administrator (ph +643 479 8256 or email gary.witte@otago.ac.nz). Any issues you raise will be treated in confidence and investigated and you will be informed of the outcome.
Appendix E. Example interview guide for teachers and students

**Teachers**

- How many years have you been teaching?
- How many years have you been conducting outdoor programmes?
- Tell me a little about what draws you to become an outdoor education teacher?
- Describe a typical camp that you have conducted. Objective of this camp?
- Have you heard of the term ‘experiential learning’?
  
  => What does it mean to you in an outdoor context? Link to the next qns
- What is facilitation to you? How would you get the students to talk about their thoughts or feelings? => Definition, common understanding
- Describe your facilitation style/method. Can you provide an example for this camp?
  
  => Verbal debriefs/ Metaphors/ Framing/ Peer discussion
- When do you usually conduct facilitation for the students? Example and why?
  
  => Before, during or after the outdoor activity
- How do you facilitate the students’ learning?
  
  => Getting them to sit gather and talk about it, reflection after dinner, via journaling or drawing etc
- Recap objective of the camp. How do you know if the students have learnt or understood the activities’ objectives?
  
  => Body language, verbal responses, reflection booklets
- What do you think the students have learned from the facilitation? How do you think facilitation has helped them in learning about themselves or of others?
- Do you think it is important to facilitate in outdoor camps? How does it help you as an outdoor education teacher?  => Personal philosophy on the value of facilitation
- Are there any barriers to facilitating students’ learning in outdoor adventure context?
  => Lack of time, organizational space or students’ interest, any other gaps
- What else is important for me to know to understand the role of facilitation in camps for an outdoor education teacher?
- Any other questions?

*Questions in bold – questions to ask teachers  *Arrow sign (=>) – potential interview probes
**Students**

- What is your name?

- How old are you this year?

- What are some of your hobbies?

- Can you describe to me what this camp is about?

- Tell me a little bit about what you have done so far?

- Did you learn anything from it? Can you tell me more about what you have learned?

- How do you think your teacher got you to share/reflect upon the experience today?
  
  
  => What did she do?

- What have you learnt about yourself from the debrief/reflection session?

  
  
  => Did you gain any new knowledge from it?

  
  
  => Was it meaningful to you?

  
  
  => Tell me a little bit more about how your teacher helped you learned today?

- Has the reflection session helped you realise anything new about yourself that you didn’t know before?

- How different do you think it (reflection) would be if the teacher were not there?

- Do you think you can apply what you have learned to your school or daily life?

- Will you be agreeable to a group discussion in your school after this camp?

- Any other questions?

*Questions in bold – questions to ask students  
*Arrow sign (=>) – potential interview probes
Appendix F. Focus group discussion questions

-> Classroom setting

-> Welcome statement, introduction to focus group discussion format

-> Open discussion format; students are encouraged to answer the questions and to add on to each other’s replies if they want to

-> Checked on how things are after the residential rock climbing camp at Long Beach; recapped the camp briefly (climbing, tent pitching, outdoor cooking)

Questions asked:

1) Did your teacher talk about the camp after you are back in school?
   => What did your teacher talk about?
   => When did your teacher talk about the camp?
   => How did your teacher talk about it?
   => What was your response?
   => What do you feel or think about it?

2) In the last 6 weeks since the camp, have you done anything that is different from what you used to do before the camp?
   => Any particular change in classroom or school context?
   => Any change in daily life or at home?

3) Anyone wants to share her thoughts about how the camp has changed or influenced what you think or do?
   => Any change in your habits? Routines?
   => Change in perception in any way?
### Annex G. General observations of activities and the people involved in each activity

<table>
<thead>
<tr>
<th>Activity</th>
<th>Description of Activity</th>
<th>Notes on teachers and students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bouldering</td>
<td>With the supervision of the teachers and rock climbing instructors, the students were encouraged to traverse and boulder across the lower part of the crag. Bouldering is a form of rock climbing without harnesses or ropes at relatively low levels of height. This was conducted to allow the students to familiarise themselves with the natural rock and ease them into the climbing process later on. Students had their climbing helmet and harnesses put on and were also taught safety techniques such as spotting each other. They took turns to spot each other as their friends traversed horizontally across the crags. All students attempted the bouldering activity at least twice, thrice for some who were faster.</td>
<td>Teachers were stationed a distance apart from each other along the crag so as to maximise the supervision coverage as the students bouldered across the rocks. They were constantly supervising and guiding students through the activity, giving verbal cues to those who needed help to boulder across the rocks. Students were receptive to feedback and enjoyed the simple and light introductory warm-up activity.</td>
</tr>
<tr>
<td>Rock Climbing</td>
<td>Rock climbing was at the natural crags in Long Beach where the students were bouldering. Routes were set up prior to the arrival of the students. Routes on the crags (pinnacle area) ranged from 7m to 15m. The crags were located next to the sea and the weather was sunny. All students were assigned different roles in their groups of threes. One of the student would be designated as the climber, another; the belayer, and the last student would be the back-up belayer. In groups with four students, there would be two back-up belayers so all students would be meaningfully engaged. The climber will attempt to climb vertically up the route while the belayer will take in the rope at the same time and ensure that the climber can go up and come down safely with the use of a belay device. The back-up belayer will manage and keep the rope neatly in a similar arrangement.</td>
<td>Similarly, teachers were actively supervising and guiding the different groups of students through the activity. Safety behaviour and belaying techniques were emphasised. In addition, the teachers also gave positive words of encouragements to students who were scared or had difficulty climbing up the rocks. There was a student who was afraid of heights and panicked while climbing up the rocks. The teacher went to the area near her immediately and encouraged with assuring words and helpful climbing cues. The girl overcame her fear and finished climbing the route.</td>
</tr>
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</table>
| **Tent Pitching** | Upon arrival at Long Beach community hall, the students gathered in their groups and started pitching the tents up for the night. Students were proficient with the setting up of the tents.  

The groups cooperated well within themselves and pitched the four-men tents up swiftly on a flat 20m x 20m grass field before sunset. The weather was fine and cooling.  

One of the teachers was unloading equipment from the school van while the other teacher was supervising the tent pitching process. | The two teachers sat the students down and briefed them about the subsequent activities that will take place at the community hall.  

They emphasised the “leave no trace” principle and touched on the environment care code to the students before the various gear were issued to the students. |
| --- | --- | --- |
| **Outdoor Cooking** | The teachers demonstrated the process of setting up the trangia stoves. It was the first time using the trangia stoves to cook for most students in this camp. Even so, all groups successfully operated the stoves to cook their meals.  

The students packed all the ingredients needed for their meals from home as part of the pre-camp preparation. The meal list was vetted and approved by the teachers prior to the camp.  

Students chatted and had fun cooking their dinner. Meals included pastas, salads, wraps, rice and sweet corns etc. | As the students set up and cooked in their groups, the teachers walked around and assisted the groups that needed help, especially in lighting up the meth.  

The teachers also took this time and checked in on the students’ mental and physical state as the day winds down. |
<table>
<thead>
<tr>
<th>Night Debrief</th>
<th>This debrief session took the longest time (around 2 hours). All students gathered at the indoor community hall after washing and packing up their cooking equipment. They were spilt into their classes with the respective teacher. Each class were given a stack of words with different meanings. The words were displayed for the students to see and they were informed to pick the word that best depicts what they felt or learned for the day. The teacher then went round the group and got the students to talk about the word that they have picked and the reason why they have chosen that particular word. Students also reflected and wrote down what they have learned into the school’s assessment booklet.</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>The teachers facilitated the reflection session with their group of students in a circle time format. They first explained how the facilitation tool (cards with words) works and the students took turns to share what they thought and felt about their experience using the card they chose. The teachers summarised the day’s activities and also shared what they felt before moving on to the written reflection for the students. There were chatters, smiles and good energy from both students and teachers during the sharing session.</td>
</tr>
<tr>
<td>Rock Climbing</td>
<td>The rest of the second day was spent rock climbing at another crag in Long Beach known as the Sea Cave Buttress area. Routes ranged from 10m to 15m at this area. Similar to the previous day, all routes were set up prior to the arrival of the students to maximise their activity time. The weather was bright and sunny. Students rotated the roles (climber, belayer, back-up belayer) among themselves and tried out different routes at the buttress area. Students were more comfortable with the climbing and belaying process as the time taken to set up, climb and rotate among themselves were shorter than the day before. Teachers were supervising the students throughout the process and guiding them when necessary.</td>
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<tr>
<td></td>
<td>Similar to the previous day; teachers roaming around and assisting the students who needed help. Highly positive and safe learning environment as the students were observed to be more proficient and comfortable rock climbing in the outdoors.</td>
</tr>
<tr>
<td>Final Debrief</td>
<td>All students gathered at the main beach for a final debrief after packing up the equipment. The teachers used this opportunity to thank all personnel involved in the residential rock climbing camp.</td>
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</table>