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Which social emotional competencies are enhanced at a social emotional learning camp?

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Research studies have shown that educational programmes such as camps and field trips can develop affective and social relationships through personal exposure to outdoor experiences among students. This study will illustrate the outcome of a social emotional learning camp organized for 93 Secondary Two students (mean age 14.1) in Singapore. Both quantitative and qualitative methods were carried out during camp to assess students' social emotional competencies (SECs) such as their self-awareness, social awareness, self-management and relationship management and responsible decision-making. Students were found to have improved in all SECs from the pre–post test questionnaire. From their camp activities and their reflections, students were found to have greater self-awareness, relationship management and self-management skills. However, teachers' observations showed that students scored lowest in relationship management skills. Students' self-awareness, social awareness, self-management and relationship management were found to be predictive of responsible decision-making, with 71% of the variance explained. The implications of the findings will be discussed to assist schools in enhancing students' SECs.

Keywords: *Social emotional learning; Self-awareness; Social awareness; Self-management; Relationship management*

Introduction

In the past, camps were organized to create an outlet for individuals to develop skills and to participate in diverse experiences (Groves, 1981). More recently, modern camps have programmes to include educational outcomes to help individuals

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develop pro-social skills (Groves, 1981). According to Thurber, Scanlin, Scheuler, and Henderson (2007), camps are deemed ideal for positive youth development because they encourage youth to take initiative, to take risks and to develop mastery, all of which support multidimensional growth. In addition, camp participation has also been associated with increasing self-esteem among students (Readdick & Schaller, 2005).

Based on Social Cognitive Learning Theory, a conceptual framework of Bandura (1997), individuals can acquire and maintain certain behaviour patterns as a result of both personal and environmental factors. Camp activities can improve pro-social behaviour; for example, students' empathy, interpersonal skills, and so forth (Groves, 1981; Mishna, Michalski, & Cummings, 2001). Mishna and colleagues (2001) reviewed past camp programmes and stated that, through the camp activities and programmes, students could have the opportunity to develop self-efficacy, improve in their relationship with others as well as be accountable and responsible. Also, by assigning students to work in groups, it allows more interpersonal interaction to occur. This interactive environment could provide positive and important experience as well as foster behavioural changes (Mishna et al., 2001).

Background to the research study

Currently in Singapore, some families have both parents at work and the children are left in the care of home-helpers or grandparents. These children may lack proper parental guidance in making responsible decisions. Furthermore, parents may feel guilty for being away at work and may indirectly be too indulgent in relating to their children, resulting in lack of restrictions on values. Adolescents in secondary schools often shift from class to class and from teacher to teacher throughout the day as they attend different subject areas. Their learning and thinking are continuously disrupted throughout the day (Akos & Galassi, 2004); and they may become vulnerable and distressed in their survival in the community (Shann, 2001). These adolescents may experience a decrease in responsibility and accountability, which are essential skills for success. These experiences may have negative impact on their ability to develop pro-social skills and to succeed academically (Limbos & Casteel, 2008).

In an effort to improve the school environment for students, the camp was organized to promote their social emotional competencies so that they can think responsibly, be able to respond to others empathically and develop social responsibility—all necessary skills to help students to successfully navigate personal and environmental challenges in their lives because studies have shown that there is a link between character development and school success (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011).

Social emotional learning research

Social emotional learning (SEL) is defined as the process of developing knowledge and skills in understanding and managing emotions, empathizing and caring for

others, building and maintaining positive relationships, making responsible decisions, as well as dealing with challenging issues in an effective manner (Collaborative for Academic, Social, and Emotional Learning, 2003). Zins, Bloodworth, Weissberg, and Walberg (2004) provided an SEL framework with five SECs, namely: self-awareness, social awareness, self-management, relationship management and responsible decision-making. The SEL framework is adapted by the Ministry of Education in Singapore and the importance of SEL is emphasized below.

The social emotional learning framework

Self-awareness

This SEC relates to the accurate identification of one's emotions and the reason why one feels so, understanding of one's strengths and weaknesses, assessment of one's attitude, values and task demands, and so forth.

Social awareness

The ability to think from others' perspectives, empathize with others' emotion and situation, understand the need of others, appreciate diversity and respect others regardless of people's background.

Self-management

This is the ability to control one's own emotions as well as behaviour. This relates to being able to handle stress well, be self-motivated and goal-oriented, having good organization skills and being disciplined. Good self-management also meant the ability to pursue self-improvement and being an overcomer during challenging times.

Relationship management

This is the ability to communicate effectively and manage conflict resolutions through effective listening to others so as to build and maintain bonds, collaboration and cooperation with team members, as well as possess leadership skills to guide and empower others.

Responsible decision-making

This is the ability to identify and analyse the problem or situation effectively. One would have to consider the pros and cons of each possible solution, and take into account the consequences of one's decision. If given a task, one should be able to come up with strategies based on one's own and others' strengths, and to reflect on their performance after completing the task given.

The Ministry of Education (2008) in Singapore pointed out the SECs should be taught to the children and youths in order to encourage them to be personally and socially responsible, which then contribute to becoming a good citizen and having better mental and physical health. Besides, SEL was also found to be related to academic performance and school-related behaviours, which was initially not expected by educators (Zins et al., 2004; Zhou & Ee, 2012).

Research on outdoor education and social emotional learning

To date, not much focus has been placed on directly relating outdoor education and SEL. Studies have been done to examine the impact of outdoor education on positive youth developments and outcomes, such as a decrease in delinquent behaviour, the ability to take multiple perspectives and improved self-control and self-efficacy (Larson, 2000). These positive outcomes are closely related to the five core SECs, and indicate indirectly that outdoor education could promote SECs in adolescents as well.

In Singapore, research on outdoor education tends to involve the Outward Bound course that started in 1967. Outward Bound is viewed as the foundation and leader of outdoor education in Singapore (Martin & Ho, 2009). One of the Singapore studies focused on female secondary students who participated in a five-day Outward Bound course (Wang, Liu, & Kahlid, 2006). Questionnaires were administered to 149 students and it was found that students improved in leadership skills, interpersonal skills and social skills (Cohen's d range from 0.43 to 0.64). The course also had immediate impact on their self-esteem, with relatively small to moderate effect (Cohen's $d = 0.24$). As the study examined only quantitative results collected immediately after the course, Wang and colleagues (2006) suggested a mixed method to be employed for follow-up studies to obtain a more holistic view of the impacts of outdoor education in Singapore.

Tan (2005) conducted a study on 800 secondary students to examine the effect of two five-day Outward Bound courses on students' life-effectiveness, which includes time management, social competence, task leadership, emotional control, self-confidence and active initiative, and so forth. Results gathered using the Life Effectiveness Questionnaire revealed that students scored significantly higher in all the subscales immediately after the course, and the impact of the course remained for all subscales at a three-month follow-up, except for time management (Tan, 2005). At the nine-month follow-up, students showed significant differences for task leadership, emotional control, active initiative and self-confidence, suggesting that the positive impacts of the course could be maintained for certain skills and competencies (Tan, 2005).

The increasing amount of research supporting positive development in adolescents through outdoor education has led researchers to ponder on the factors that lead to the mentioned positive outcomes. Gassner and Russell (2008) conducted a retrospective analysis with 318 adults on the long-term impacts of a 21-day Outward Bound course in Singapore. They found that course components with reflection significantly

contributed to the long-term impact of the course. Participants also reported that the geographical context of the course, outdoor activities and individual participation played important parts in the long-term course impacts (Gassner & Russell, 2008). The importance of reflections in experiential learning is supported by Kolb's theoretical model (Kolb, 1981). The ability to observe and reflect on concrete experience will enable learners to create abstract concepts for decision-making as well as problem-solving (Kolb, 1981).

Research on SEL tends to obtain reported responses of students on questionnaires. Few studies tend to focus on the hands-on outcomes of the infusion of SEL in an outdoor environment as well as students' reflections of the camp. To ensure that students walk their talk, this study attempts to encourage them to apply their SEL skills in a real-world setting and write about them in a journal so that teachers may have first-hand observations of students' SECs and be able to report whether their infusion of SEL has been internalized by the students outside the classroom.

Furthermore, the camp activities may substantiate the quantitative findings of our larger SEL research study. Adolescents need skills, resources, strategies and protective factors so they may live according to the values set by the family, school and community. An adolescent may have good character but still not understand how to deal with strong feelings, or how to conduct himself/herself appropriately with peers or people in authority. The SEL camp hopes to go beyond character education; offering varied activities to enable students to exercise their SECs. As SEL skills can be taught and adolescents learn best through hands-on experiences (National Middle School Association, 2001), a two-day and one-night programme was designed to address some of these needs. The SEL camp will investigate students' SECs in an outdoor setting.

In addition, Payton et al. (2000) stated that all SECs are closely related yet distinct, and each competency is built upon one another. To make responsible decisions, comprehension of one's feelings and values, respect and consideration for others as well as setting adaptive goals are the crucial foundations (Payton et al., 2000). Bond and Manser (2009) mentioned that a person who has difficulty managing themselves may also struggle in decision-making. To illustrate this notion, the relationship between responsible decision-making and the other four SECs was examined.

Research questions

- (1) What SECs are enhanced through the camp?
- (2) Which SECs are predictive of responsible decision-making?

Methodology

Subjects

Ninety-three Secondary Two students (54 males and 39 females, mean age = 14.14 years old, standard deviation = 0.48) from two secondary schools participated

in this two-day, one-night camp held in a semi-rural setting in Singapore. Participants were randomly selected from the sample of lower secondary students involved in the larger SEL study. Teachers from the two secondary schools joined the camp as teacher facilitators to monitor and observe each group's behaviour and performance. Research assistants were assigned to assist the teacher facilitators.

The camp programme

An SEL camp with the theme 'Glow! Grow! Go!' was carried out to provide an opportunity for the students to apply SEL in the real setting. The camp served as a safe environment for students to freely explore and develop positive self-esteem, leadership and management skills, communication skills, responsibility and the ability to make sound decisions.

The camp objectives were as follows:

- (1) To provide a fun, safe and bonding atmosphere in order to promote self-discovery and SECs.
- (2) To provide students with an opportunity to celebrate and appreciate themselves while celebrating and appreciating others.
- (3) To create a bond between the students and teachers.
- (4) To provide a platform to evaluate student SECs.

A pre-camp activity was organized for students to familiarize themselves with their group members and to design their group flag. This was to encourage camaraderie among the students in their respective groups. The pre-camp also gave the teacher facilitators and students an idea of what to expect during the camp.

There were several camp activities designed to build different abilities and team-bonding among the students. Through these activities, students would be able to learn to realize the importance of having effective communication with team members, understand the importance of coordination and cooperation in a group task, cooperate as a team member to achieve group tasks, understand the need to pull one's own weight in a group task, understand the effect of mutual encouragement and support, harness the strengths of the team, identify problems and work towards a solution, turn negative perspectives into positive ones, overcome limiting emotions and thoughts under extreme challenges, develop self-confidence, daring to try new tasks, rise up to the challenge and tackle issues head on.

Camp activities

Problem-solving Station Games. These were circuit games consisting of different puzzles and challenges designed to help the students learn about themselves and how they function together as a group. In problem-solving the given task, students had to consider various strengths, weaknesses and unique skills of each individual as well as to share their ideas to reach their common goal.

Push Ball challenge. For this activity, students had to push an oversize ball and navigate it around the campsite according to the course that had been set. Obstacles and difficulties were built into the courses and the students had to work closely together to overcome each obstacle and pothole. An additional challenge faced by each group was to compete with each other for the fastest time in completing the activity.

Low Element challenge circuit. Students had to overcome a few physical circuit elements such as the Spider Web and the Monkey Bar. This circuit challenged students to problem-solve and work with their group members to complete the given task in the shortest possible time as a group.

Rock Wall. The Rock Wall challenge was designed to evoke extreme emotions from the students as they were placed in situations that challenged them to step out of their comfort zones. Depending on different students' ability, they had to climb up a wall of 20–60 feet off the ground.

Water Rafting. Students were provided with basic materials to construct their own raft that was sea-worthy. Thereafter, they had to complete a series of challenges and tasks on water. Students had to communicate and problem-solve with each other to overcome the challenges posed.

Outdoor Cooking. Students had to prepare a dessert with oranges and eggs. Their challenge was to start the fire and prepare the dessert in the shortest possible time. Students' resourcefulness and how well they worked as a team were also observed.

Night Walk. Night Walk was the only activity involving individual participation. Students had to navigate their way over a distance in the dark. The activity was to create an environment of uncertainty so that students had to self-manage their fear of darkness.

Materials

SEL Camp Questionnaire. The SEL Camp Questionnaires were administered twice: during pre-camp and immediately after the campfire activity, which was the last activity for the SEL camp. The questionnaire consists of items taken from the Social Emotional Competencies Questionnaire (Zhou & Ee, 2012). Students rated their responses on a six-point Likert scale with 1 = 'not at all true' and 6 = 'very true'. Sample items for self-awareness are: 'I understand my moods and feelings' and 'I know when I am moody'. Sample items for social awareness are: 'If someone is sad, angry or happy, I believe I know what they are thinking' and 'I understand why people react the way they do'. Sample items for self-management are: 'I am able to use my time effectively every day' and 'I am good at organizing what I do every day'. Sample items for relationship management are: 'I prefer to listen to

others' ideas than forcing my ideas on them' and 'I am able to comfort my friends when they are unhappy'. Sample items for responsible decision-making are: 'I ensure that there are more positive outcomes when making a choice' and 'I consider the strengths and weaknesses of the strategy before deciding to use it'. Cronbach's alpha values for self-awareness, social awareness, self-management, relationship management, and responsible decision-making subscales were 0.91, 0.87, 0.84, 0.91, and 0.85, respectively.

Camp handbook. A camp handbook was developed for this SEL camp, and served as the students' daily reflection journals to encourage the students to reflect and contemplate on their camp experiences. There were two main sections in the camp handbook, namely camp activities and camp reflections.

After completing the camp activities, students summarized and described how they felt about each activity. Five questions listed to guide the students were: 'What I learnt about myself', 'What I notice about relationships (me & others) (others & others)', 'What were the good/bad feelings (if any)', 'What I learnt about responding to situations, what I would do differently' and 'What are two or three words you can use to describe how you feel about this activity'.

Under the camp reflections, students wrote and described their abilities in terms of the five core SEL competencies after the camp to assist them in defining and discovering their personal SECs. Students also listed: 'three most important/interesting things I have learnt', 'two things about how the camp has/has not changed with me' and 'one learning I take away from the camp and will apply in my life'.

Teacher evaluations. An observation checklist was given to each teacher facilitator. Students' behaviour, responses to different situations and performances on various tasks were observed and rated based on a four-point Likert scale ranging from 1 = 'strongly disagree' to 4 = 'strongly agree'. A total of 20 items were included, with four items tapping on each SEC respectively. Examples of these items include: 'shows self-perception of strengths and needs' (self-awareness), 'is self-motivated and resolute' (self-management), 'shows respect for others' (social awareness), 'gets along well with others' (relationship management) and 'displays integrity and acts ethically' (responsible decision-making). The checklists were collected from the teacher facilitators when the camp ended.

Procedures

Parent consent forms were given and collected before the pre-camp activity. The SEL pre-camp questionnaire was administered to the students during the pre-camp to measure the baseline of their SECs. On the first day of camp, students were each given a camp handbook to record their thoughts and reflections throughout the camp. There were reflection sessions on each day of the camp and teacher facilitators were to scaffold and assist their group of students on the reflections. During the camp

activities, observations on how the students behaved in various scenarios or activities were conducted and recorded by the teacher facilitators on a given checklist. Each teacher facilitator observed one group, with eight to 10 students in each group. Camp handbooks and observation checklists were collected back before the camp ended. The SEL post-camp questionnaire was administered after the last activity of the camp, which was the campfire.

Results

Research question 1. What SECs are enhanced through the camp?

In addressing this question, the quantitative analysis of the pre-test–post-test results, the camp activities and the teachers' evaluation will be discussed.

Seventy-six students completed and returned the pre-camp questionnaire and the post-camp questionnaire. The data were screened for normality and outliers were removed. After removing outliers, the data showed acceptable skewness and kurtosis (−1.208 to 0.052), indicating that the normality is assumed. The mean and standard deviation for each SEC were calculated. Paired-sample *t*-tests were conducted to examine the change in students' SECs. There were significant increases in all five SEC scores of the students after the camp, and the Cohen's *d* value obtained from the results ranged from 1.25 to 2.52 (see [Table 1](#)).

Students' responses in their camp handbook served to substantiate the findings from the camp questionnaire, as well as to examine which SECs were enhanced specifically for each camp activity. All responses were coded accordingly into the different themes under the five SECs.

In general, students reported greater sense of self-awareness (48.89%) through the camp activities. This was followed by relationship management (26.12%), self-management (16.42%), social awareness (4.69%) and responsible decision-making (3.88%), respectively ([Table 2](#)). The Night Walk tended to raise the highest level of self-awareness (60.16%) and self-management skills (21.70%) among the students,

Table 1. Means, standard deviations, *t*-tests and Cohen's *d* values of pre-test and post-test social emotional competencies in camp

	<i>n</i>	Pre-test		Post-test		<i>t</i>	Cohen's <i>d</i>
		Mean	SD	Mean	SD		
Self-awareness	75	3.32	0.39	5.00	0.87	16.44***	2.49
Social awareness	75	3.22	0.40	4.53	0.90	11.96***	1.88
Self-management	75	3.20	0.37	4.02	0.85	8.22***	1.25
Relationship management	74	3.13	0.32	4.75	0.85	16.70***	2.52
Responsible decision-making	75	3.18	0.39	4.59	0.87	14.29***	2.09

Notes: SD, standard deviation. ****p* < 0.001, two-tailed.

Table 2. Frequencies and percentages of social emotional competencies coded for students' responses

	<i>n</i>	Self-awareness		Social awareness		Self-management		Relationship management		Responsible decision-making		Total
		<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	
Rock Wall	73	165	49.70	22	6.63	63	18.98	67	20.18	15	4.52	332
Low Element	78	163	46.31	15	4.26	53	15.06	108	30.68	13	3.69	352
Water Rafting	54	106	47.96	10	4.52	40	18.10	59	26.70	6	2.71	221
Push Ball	70	127	43.94	12	4.15	40	13.84	93	32.18	17	5.88	289
Outdoor Cooking	77	174	51.18	10	2.94	50	14.71	83	24.41	23	6.76	340
Station Games	72	130	40.75	15	4.70	39	12.23	127	39.81	8	2.51	319
Night Walk	92	219	60.16	20	5.49	79	21.70	42	11.54	4	1.10	364
Total		1084	48.89	104	4.69	364	16.42	579	26.12	86	3.88	2217

Note: *f*, frequency.

whilst Station Games tended to elicit more relationship management skills (39.81%) as they had to communicate with one another to resolve the problem in the shortest possible manner.

As mentioned earlier, the quantitative pre-post comparison has shown that students improved in all five SECs. Students' verbatim responses under each SEC were then examined to address the specific types of learning outcomes that they had achieved through the camp activities and their reflections in the handbook.

Self-awareness. Students' verbatim responses seem to highlight their self-awareness for all seven camp activities. The percentages of responses on self-awareness covered at least 40% of the total responses for each camp activity. Responses that fell on the self-awareness category were especially high for the Night Walk (60.16%), which was the only activity in which students had to participate individually, without anyone to accompany them or to observe them.

Students frequently reported the feeling of excitement and fun after participating in the camp activities. Their responses included a sense of accomplishment, achievement or a feeling of satisfaction towards their performance. When placed in challenging situations such as the Rock Wall, Water Rafting and Night Walk, which required the students to be out of their comfort zone, they were able to discover the courage and confidence within them:

I learnt that I have confidence. I was scared at first but I built up my confidence and did the night walk¹ (S1, Group 8; Night Walk).

I learn that even though I am afraid of heights, I am able to climb high on the rock wall (S6, Group 8; Rock Wall).

Students were physically stretched during the camp, especially when attempting the challenging obstacle circuit. As a result, they were more aware of their own physical strengths and weaknesses. Also, students described how the camp had helped them to develop mental strength:

I learnt that I have coordination with my whole body (S9, Group 8; Low Element).

I became more brave and confident (S5, Group 7; My Shield after camp).

Social awareness. Responses on social awareness for all camp activities were relatively low as compared with other SECs. Students were able to notice how their group mates participated and contributed to the group. They also learnt to appreciate others' views and ideas:

Some members maybe cannot get along so well. But they try their best to get along in order to accomplish something (S2, Group 5; Water Rafting).

All of us have our strengths (S7, Group 11; Low Element).

After the camp, students acknowledged the need to respect each other and to be considerate as one's action would have an effect on other people:

After the camp, I think I can be more respectful to my family and friends (S3, Group 7; My Shield before camp).

Our actions, the way it does things, they are things that would affect others very easily (S2, Group 4; Reflections).

Self-management. Students' reflections and thoughts on self-management were highest for the Night Walk (21.70%), mainly because the activity required them to perform individually without any team members involved. Having to persevere, trying their best and pushing themselves to the limits to complete the tasks given were the major commonalities mentioned. Many of them indicated that they motivated themselves when they felt like giving up because the tasks were difficult and very challenging:

Although I am struggling sometimes, but I am willing to push myself forward (S3, Group 11; Push Ball).

I learnt that I should not give up and give it a try even though I am scared (S7, Group 10; Night Walk).

Managing their emotions through different methods such as staying calm, especially when they were under pressure and fear of uncertainties, was frequently reported by the students. In addition, students had learnt to manage their negative and limiting thoughts in order to overcome their fears:

If I see something not normal, I will keep calm and keep walking (S3, Group 6; Night Walk).

At certain times, I felt frustrated during this camp. Despite that, I didn't scold them, talk behind their back and such, which is an improvement since I do talk behind someone's back sometimes (S4, Group 4; My Shield after camp).

I tried to entertain myself to distract myself from thinking other things (S2, Group 8; Night Walk).

Students had learnt to focus on the process, in this case referring to contributing their best in what they were doing rather than focusing on the product, which was to win the games:

The most interesting/important thing I've learnt is that winning or losing is not the thing, is just that we know we done our best (S2, Group 5; Reflections).

Relationship management. As most of the camp activities required students to work in teams, reflections and reports on teamwork and communication among team members were high, especially for Station Games (39.81%), followed by Push Ball (32.18%) and Low Element (30.68%). Some of the students stood out from the crowd as a leader during the camp, with a few stating that they had never been a leader prior to this. They mentioned that they developed leadership skills and this helped them to realize that they actually have the ability to lead others:

We can communicate well if we accept other people's ideas and not to do something selfish like stubbornly support our own ideas (S4, Group 4; Station Games).

I have learnt that real teamwork which is to contribute to the team even it's the smallest way (S4, Group 5; Reflections).

I know how to lead others. And make them get influenced by me. One for all, all for one (S1, Group 1; One Lesson Learnt).

In camp activities where students had to complete the challenges or tasks individually, they acknowledged that the support given was an important factor that motivated them to persist and to achieve their goals:

My friends cheered for me and it gave me energy to move higher (S1, Group 7; Rock Wall).

My friends supported me when they found out about my fear and they gave me tips on how to complete the task (S4, Group 4; Night Walk).

All the time spent together with the teammates and the interaction among students helped them to understand their teammates better, build stronger bonds in their friendship and also to provide opportunities for the students to make new friends:

I have learnt how not to judge a book by its cover and not to underestimate the ability of my friends, I have learnt that by communicating and helping my friends, we are able to develop a stronger bond (S4, Group 5; My Shield after camp).

Responsible decision-making. Students' reflections on responsible decision-making were the lowest for most of the camp activities. For most of the responses, the focus was on looking for different methods in problem-solving. Students either tried hands-on and

learnt that there were multiple ways to handle the tasks or they suggested some other solutions that could have worked for the problem:

In different situations, different methods and strategies are needed. We need to think out of the box (S2, Group 5; Water Rafting).

Students also mentioned the changes in how they made decisions or solved a problem. Some of them pointed out that they would need to consider the consequences of their decision and how it would affect not only themselves, but others as well. On the whole, students commented that the camp had made them a more responsible person:

I have changed my stubbornness in deciding on something and learnt to listen to others' opinions as it might be better than mine (S2, Group 5; Reflections).

I will try to give my own opinions when it comes to problem solving and I try to analyze the situation to try to contribute and help my group whenever it is a good or bad idea (S4, Group 5; My Shield after camp).

I thought of the pros and cons of the situation and didn't make a blind decision, knowing that my group will be disappointed when we fail all because of my selfishness (S4, Group 4; My Shield after camp).

Perceived no changes after the camp. There was, however, a small number of students who responded that the camp did not change them. Most of the students who said so mentioned that they did not manage to overcome their phobias:

I am still afraid of darkness and heights no matter how hard I try to change, I couldn't overcome the fear (S2, Group 4; Reflections).

The camp did not change my attitude towards things (S6, Group 6; Reflections).

The means and standard deviations of teacher facilitators' evaluations on students' SECs are shown in Table 3. Repeated-measures analysis of variance was conducted to examine the difference among the five SECs. The result is significant, $F(3.335, 303.504) = 18.373$, $p < 0.001$, $\eta^2 = 0.168$, with Greenhouse–Geisser correction. Further analyses were conducted using paired-sample t -tests for each pair-wise comparison. Results showed that teacher facilitators rated their

Table 3. Teachers' evaluations on students' social emotional competencies performance during camp activities

	<i>n</i>	Mean	Standard deviation
Self-awareness	93	3.356	0.44
Social awareness	93	3.227	0.41
Self-management	92	3.254	0.44
Relationship management	93	3.152	0.35
Responsible decision-making	93	3.232	0.38

Table 4. Correlation coefficients among the social emotional competencies

	Self-awareness	Social awareness	Self-management	Relationship management	Responsible decision-making
Self-awareness	1				
Social awareness	0.56**	1			
Self-management	0.49**	0.47**	1		
Relationship management	0.72**	0.56**	0.57**	1	
Responsible decision-making	0.69**	0.63**	0.62**	0.73**	1

Notes: All $n = 92$ except for those involving relationship management, where $n = 91$. ** $p < 0.01$, two-tailed.

relationship management as lowest among all five SECs (mean = 3.152, standard deviation = 0.35, $ps < 0.05$). This is in contrast to students' reported responses of greater relationship management as the second highest SEC enhanced. Teachers observed that students were more able to take others' perspectives and make responsible decisions as compared with managing relationships, which were both less reported by the students.

Research question 2. Which SECs are predictive of responsible decision-making?

Correlations among the SECs were determined (Table 4) to see whether the variables were related. Students who are empathetic are likely to have high self-awareness and be better at emotional control and responsible decision-making. Similarly, those who exercise responsible decision-making are likely to be very self-aware of their environment and be able to be empathetic and emotionally controlled. Also, they are more able to develop good relationship management.

Multiple regression analysis was conducted on the post-camp questionnaire data to determine whether the four SECs (self-awareness, social awareness, self-management and relationship management) predicted responsible decision-making. As shown in Figure 1, all four SECs significantly predicted responsible decision-making, with 71% of variance accounted, $R^2 = 0.71$, $F(4, 86) = 52.01$, $p < 0.001$.

Discussion

The quantitative data showed that all the five students' SEC scores increased significantly after the camp, with effect sizes much larger compared with those reported by past research (e.g., Wang et al., 2006). Also, among the five SECs, the effect sizes for relationship management and self-awareness were the largest. In this two-day, one-night SEL camp, students were placed in an outdoor environment, were

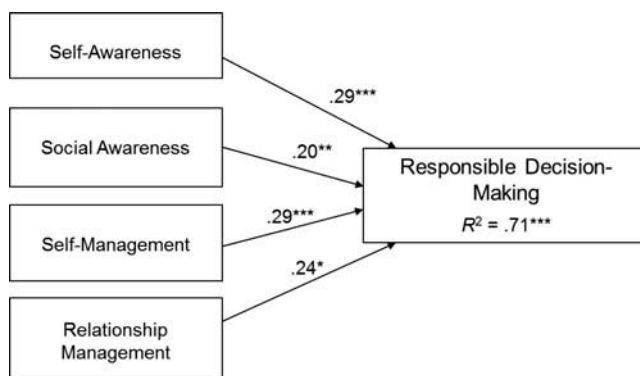


Figure 1. Four social emotional competencies predicted responsible decision-making
 Note: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

given the opportunity to have individual participation in one of the camp activities and were allowed ample time to reflect on their thoughts and experiences. These camp experiences and students' reflective journaling might have contributed to creating greater SEC development in them, as supported by Gassner and Russell (2008). In addition, the purposeful camp-wide SEL approach and excellent support of the teachers as facilitators and guidance in the camp chores and activities were probably some of the factors. As a control group was not included, it may not be possible to conclude definitively that the SEL camp enhanced students' SECs and to directly support previous research that showed outdoor education programmes like camps could help students to develop pro-social skills (Groves, 1981). Therefore, the students' reflective journaling was used to substantiate the quantitative results.

From the students' reflections in the camp handbook, students reported highest on self-awareness, followed by relationship management and self-management. They became more confident and had more trust in their own abilities and potential. Students acknowledged the importance of teamwork, mutual support and encouragement as well as communication with other team members on helping to build stronger bonds and to achieve their common goal. They learnt to persevere through difficult tasks, to plan and strategize before they act, and to push their limits in achieving their targets. However, students' reflections, particularly for camp activities, showed that there was a lack of reflections on both social awareness and responsible decision-making.

Teachers' evaluation on students' SECs during camp activities showed a different pattern. Teachers observed that students displayed relatively fair amounts of self-awareness, self-management, social awareness and responsible decision-making. However, teachers evaluated their performance on relationship management as the lowest among all five SECs. This result contrasted with students' reflections, which showed that students felt they learnt to handle their relationship among their team better. This discrepancy may imply that teachers tend to see more overt actions rather than examining students' thoughts and reflections as well. According to Levin,

Hammer, and Coffey (2009), teachers' attention and response to their students depend on how they frame the situation. They suggested that context and system are important factors that influence teachers' framing (Levin et al., 2009). It could be the case that being placed in the camp, which was quite different from the usual classroom settings, teacher facilitators' framing was directed more to students' behaviour, with the result that they failed to attend to students' thoughts after participating in the camp activities.

All four SECs have been found to be predictive of responsible decision-making. In other words, students who are more aware of and able to take control of their own emotions and abilities, perceive others' perspectives as well as relate well with people, would have the ability to make more responsible decisions.

This study has provided a more detailed view of the impact and benefits of a camp on students' SEC development. Students' qualitative perceptions on outdoor education were examined and a different perspective from the teacher facilitators was also obtained to provide a more holistic coverage of the issue. However, as the post-camp questionnaires were collected right after the camp had ended, and were therefore possibly influenced by a post-course euphoria effect, a follow-up study could have been conducted to investigate whether the students' SEC development was maintained at a later time, as suggested by Wang and colleagues (2006). In addition, the follow-up study could provide more information about students' social emotional competencies outside the camp setting, which may be more generalizable. The lack of questions on social awareness and responsible decision-making in the handbook might be one of the factors that led to lack of reflective thoughts on social awareness and responsible decision-making by the students. Furthermore, as students responded on their reflections according to the guidance questions, there is a possibility that their reflections were restricted to a certain extent, and did not fully reveal their reflective thoughts and experience throughout the camp.

Implications

The SEL camp is another approach to evaluating the beneficial effects of enhancing SECs in students. However, care must be given in organizing the camp activities as well as the reflection questions in the handbook to ensure that all of the SECs are equally enhanced. More effective choices of activities may need to be considered to reinforce the five SECs, especially to empower students in decision-making, and other SECs that were less emphasized in the classroom. Effective communication skills could be taught for better relationship management. Video-taking could also be included to observe how students relate to one another and make responsible decisions. For future research, a longer time frame should be given to assess the group dynamics in a relationship to see how students resolve conflicts effectively as well as their ability to problem-solve certain dilemmas to make responsible choices that will benefit not only themselves but others in the community. The discrepancy between students' and teachers' perceptions on students' SECs during the camp is another interesting point that could be further investigated.

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Note

1. The students' quotes have been deliberately left unedited.

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