
The development of social emotional learning programs in a cross-cultural elementary classroom

Saowanee Pinchumphongsang* and
Sumalee Chanchalor

Division of Learning Innovation and Technology,
Faculty of Industrial Education and Technology,
King Mongkut's University of Technology Thonburi,
126 Pracha-Uthit Road, Bang Mod, Thung Khru,
Bangkok 10140, Thailand

Email: saowanee.p@mail.kmutt.ac.th

Email: sumalee.cha@kmutt.ac.th

*Corresponding author

Abstract: The purpose of this study was to develop an intervention to improve the SEL skills of learners in a cross-cultural school context. The study involved the development and trial of an intervention program designed to develop social emotional skills. Participants were 30 Thai learners as well as six learners from Myanmar, Cambodia and Laos in a socio-economic and culturally diverse classroom. Prior to participation, the 36 students completed the SDQ. The SDQ was also completed by parents/guardians and teachers of the 36 students. The intervention lasted 15 weeks and structured learning blended with nine multimedia social stories along with various activities. The results are presented as pre-post for the whole group which was statistically significant, meaning that the intervention was effective in improving the social skills.

Keywords: learning innovation; social emotional learning; SEL; development; elementary; SEL programs; active learning; social story; strengths and difficulties behaviour; strengths and difficulties questionnaire; SDQ; cross-cultural.

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Biographical notes: Saowanee Pinchumphongsang is a PhD candidate in Learning Innovation and Technology at the Faculty of Industrial Education and Technology, King Mongkut's University of Technology Thonburi, Thailand. She graduated from the Faculty of Education with a major in Primary School Education, Suan Dusit Rajabhat University, Thailand and received her Master's in Educational Technology from the Faculty of Education, Srinakharinwirot University. She is familiar with the development of learning for primary school children as she has over ten year experience in teaching. She is currently taking the role of educator with professional level in Research and Development in Media and Technology Section, Technology for Learning and Teaching Division, Department of Education, Bangkok Metropolitan Administration, Thailand. She is interested in instructional design and development including educational media and technology development to promote learning and development of school children.

Sumalee Chanchalor is an Associate Professor and obtained her PhD in Curriculum Research and Development from the Srinakharinwirot University Thailand. She is currently a Lecturer in the Department of Electrical Technology Education, Faculty Industrial Education and Technology, King Mongkut's University of Technology Thonburi, Bangkok, Thailand. Her courses are on research methodology, basic statistics for electrical technology students. Her researches included articles related to learning innovation, applied technology and community development. She published papers in several academic journals such as *Education and Information Technologies*, *Australasian Journal of Educational Technology* and *British Journal of Educational Technology*.

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1 Introduction

As society has rapidly changed, individuals have been affected in various aspects of life, particularly in economic, social and technological terms. Consequently, an individual's way of life has become more competitive and a greater struggle. It is necessary for them to make adjustments; otherwise, they may not achieve their set goals and succeed in living with this situation. The rapid change, moreover, has increased the impact on students all over the world, and caused more problems to their mental and emotional health as well as their behaviour (Woods and Pooley, 2015). As countries become aware of this situation, many have turned more focus on solving those problems and fostering social competencies of their children.

There are many research studies which reveal social emotional learning (SEL) is able to enhance social emotional competencies (SEC) and has positive influences in the following areas: academic achievement, social skills, emotions, behaviours, mental health and life satisfaction of students (Durlak et al., 2011). According to the evidence shown in previous research and studies, they indicate that SEC plays an important role in encouraging students to reach their achievements (OECD, 2015).

On the other hand, there is research which studied the impacts of a lack of knowledge, social skills, emotions and problem behaviours. This found that lower academic performance, lower grades and overall achievement, more discipline referrals, poor attendance, higher dropout rate and more tendencies to violate rules and codes of conduct are consequences raised by the unavailability of SEL as outlined above (Weissberg et al., 2015).

The notion of implementing SEL to a classroom is considered as an effective instructional approach since schools are places where students spend most of their time and feel familiar with environment. This reason allows schools to create learning opportunities by implementing new knowledge and skills to students as well as preparing their physical and mental health suitable for their surroundings.

Social and emotional learning (SEL) intervention, therefore, becomes one strategy that enhances and supports students to learn and develop SEC (Weissberg et al., 2015).

Thus, SEL can be employed as prevention or intervention in order to promote skills, behaviours and emotional recognition, and to improve students' behaviours in preventing possible problems (Vella-Brodrick, 2011; Cefai and Cavioni, 2015). Schonert-Reichl et al. (2015) employed SEL as a method of teaching and they found that it could decrease problem behaviours of students in a school. Likewise, the finding of Weissberg et al. (2015) suggested that SEL helped to diminish students' aggressiveness and helped to improve students' mental health. In addition, implementing SEL to instructional approaches gives advantages to underprivileged students (Durlak et al., 2011; Hamedani and Darling-Hammond, 2015).

Nevertheless, to implement SEL in schooling may not always succeed due to the emergence of some problems and obstacles during the process as found in classes of elementary schools. This was due to the fact that many teachers focus on academic content and academic achievement rather than social and emotional development (Sukcharoen et al., 2018). Apart from that, SEL programs are often poorly explained and therefore difficult to replicate (Stephanie and Suzanne, 2012).

In Thailand, Child and Adolescent Mental Health Rajanagarindra Institute conducted the survey on risky behaviours of students and found that emotional problems occupied the highest percentage according to the responses of assessments made by teachers and parents. In comparison, 36.8% of students' self-assessment showed that their risky behaviours were related to peer-relationship (Ministry of Mental and Health, 2013). Previous research also stated that risky behaviours were related to emotions and friendship among Thai and foreign students studying in a classroom and in the same elementary school (Pinchumphongsang and Chanchalor, 2018). Based on research in Thailand, it is not common to find SEL implemented in schooling in order to foster students' SEC. It is only the research on decreasing undesirable behaviours and enhancing potential in learning SEC of elementary students found in Nilrat's (2010) and Iaosanurak et al.'s (2016) studies. Their studies used technology as a tool in creating learning activities, but they did not explicitly indicate that SEL was one of factors helping to improve behaviours.

Thus, an effective method to promote and foster positive behaviours and at the same time to decrease problem behaviours is needed since behavioural problems are mostly found in students whose ages are in pre-adolescence. This is the period where students meet physical, emotional and social changes and are more influenced by friends than their parents and teachers (Ohl et al., 2013). Experiencing negative peer-relationship causes children to feel frustrated and stressful and, consequently, it results in a negative self-concept and school maladjustment.

The main focus of this study was to develop SEL programs and the preliminary implementation of the program to find its effectiveness in enhancing SEC in the area of peer-relationship for students in a cross-cultural elementary classroom in Thailand. The outcomes of this study would become a guideline and method for teachers to employ SEL into their instructional approaches to develop students' SEC and foster peer-relationship. This will enable adolescence students to succeed in social adjustment in adulthood and forming healthy interpersonal relationship appropriately in the context. Research questions are as follows:

- 1 How does the development of SEL programs enhance peer-relationship for elementary students in a cross-cultural classroom?

- 2 Does the development of SEL programs help to increase positive behaviours and decrease problem behaviours?

2 Review of the literature

2.1 The concept of SEL

SEL is the process through which individuals acquire the social and emotional competencies, both intrapersonal and interpersonal, needed to function in a social world (Domitrovich et al., 2017). SEL is developed from emotional intelligence (EI) and it refers to the mental abilities associated with processing and responding to emotions, including recognising the expression of emotions in others, using emotions to enhance thinking, and regulating emotions to drive effective behaviours (Mayer et al., 2001). In other words, EI evidently refers to when individuals have the ability to control their emotions and build positive relationships; social competence, adaptation, and academic success (Brackett and Rivers, 2014). In addition, there is a study which states that dimensions of EI affect social emotional and perception, and was a strong predictor of SEL (Arslan and İşeri, 2018).

The aim of SEL is to develop students' social and emotional competencies or SEC (Weissberg et al., 2015). The CASEL (2018b) defines SEL as "the process through which children and adults acquire and effectively apply the knowledge, attitudes, and skills necessary to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions." The CASEL (2018a) also outlines five core social and emotional competencies: self-awareness, self-management, relationship skills, social awareness, and responsible decision making. The knowledge, skills, and attitudes that are needed to demonstrate social and emotional competence require integration across affective, cognitive, and behavioural systems (Beauchamp and Anderson, 2010).

2.2 SEL program intervention

There are various strategies of applying SEL to classrooms or in schools depending on the contextual factors and purposes. Thus, SEL can be employed as prevention or intervention in order to promote skills, behaviours and emotional recognition, and to improve students' behaviours for preventing possible problems (Vella-Brodrick, 2011; Cefai and Cavioni, 2015).

There are various frameworks of SEL presented and one of them can be seen from Weissberg et al.'s (2015) model which represents classroom-level approaches referring to direct instruction in SEL embedding SEL throughout the curriculum, and informal infusion of SEL throughout teachers' interactions in the classroom. Jennings and Greenberg's (2009) present a model of the prosocial classroom, highlighting the role that teachers play in promoting effective SEL implementation and creating safe and supportive classroom environments that are essential for students' SEC and academic development (Collie, 2017). In Table 1, the literature review on SEL intervention shows that there are studies working on finding effectiveness of the SEL program intervention

and the changes were made by students after participating in the SEL program intervention based on the survey on the capability of the program. Top et al. (2016), Coelho et al. (2016), Carvalho et al. (2017) and Kiviruusu et al. (2016) also find the results of SEL implementation that make a positive change in students' behaviours and decrease problem behaviours; for example Top et al. (2016) study the long-term impacts of second step implementation to reduce problem behaviours and increase prosocial behaviours with students in grade five to eight. This study is similar to Coelho et al. (2016) examining the effects of the program positive attitude with 1,237 fourth grade students of a Portuguese elementary school. Carvalho et al. (2017) evaluates the efficacy of the MindUp curriculum, an SEL program through mindfulness practice with 454 students on 3rd and 4th grade and 20 teachers in Portugal. Kiviruusu et al. (2016) examined the short-term effects of the 'the together at school program' in improving socio-emotional skills and reducing psychological problems among 3,704 boys and girls in Finland. Moreover, there is a study on implementation of the designed program in cultural diversity contexts like Cramer and Castro-Olivo (2016) who determine intervention effects of a culturally adapted Strong Teens program to promote socio-emotional skills and reduce psychological problems with 34 students in grades 9 and 10. "The finding suggests high levels of intervention acceptability and relevance for use with culturally and linguistically diverse high school students."

Table 1 Literature review of studies on SEL intervention

<i>Author/year</i>	<i>Location</i>	<i>N</i>	<i>Intervention</i>	<i>Improving competence</i>
Iaosanurak et al. (2016)	Thailand	23	8 weeks	Emotional intelligence
Author/year	Location	N	Intervention	Improving competence
Kiviruusu et al. (2016)	Finland	3,704	The together at school program	Socio-emotional skills, reducing psychological problems
Craig et al. (2016)	USA	23	10-week intervention interactive online game	Social self-efficacy, social satisfaction, social skills literacy
Cramer and Castro-Olivo (2016)	USA	34	Strong Teens SEL program	Self-awareness, self-management, social awareness, relationship skills, responsible decision making
Coelho et al. (2016)	Portugal	1,237	The program positive attitude	SECs, self-esteem
Top et al. (2016)	Turkey	5,189	Second step curriculum	Prosocial behaviours, academic achievement, reduce problem behaviours
Zhu et al. (2016)	USA	10	The friend star game	Social skills
Day et al. (2017)	USA	943	D.A.R.E. curriculum	Decision making, resistance skills
Carvalho et al. (2017)	Portugal	454	MindUP program	Self-awareness, focused attention, self-regulation, reduce stress
Gormez et al. (2017)	Turkey	32	Psychological intervention group program	Reduce emotional distress, psychological functioning

Table 1 Literature review of studies on SEL intervention (continued)

<i>Author/year</i>	<i>Location</i>	<i>N</i>	<i>Intervention</i>	<i>Improving competence</i>
Roh et al. (2018)	Korea	126	Social skills training program	Peer relationships
Cappella et al. (2018)	USA	246	Afterschool programs	Academic competence, social-behavioural risk
Williams et al. (2018)	Australia	400	Seven-day outdoor camp	Positive adjustment

3 The development of SEL programs

The integration of active learning and positive psychology become the main foundation in designing the development of SEL programs to enhance SEC for fostering peer-relationship among students.

3.1 Theoretical foundations

There are two main theories adopted and integrated to produce the development of SEL programs in this study: active learning and positive psychology.

Active learning is aligned with the social constructivism learning theory developed by Vygotsky (1978), who believes that learners construct knowledge through social interactions with others such as kids and adults, parents and children, teachers and students. Vygotsky's (1978) posed the relationship between cognitive processes and social activities led to the socio-cultural theory of development, which suggests that learning takes place when students solve problems beyond their current developmental level with the support of their instructor or their peers. Thus, active learning approaches that rely on group work rest on this socio-cultural branch of constructivist learning theory, averaging peer-peer interaction to promote students' development of extended and accurate mental models. Some experts agree that effective SEL program using 'active approaches' is more effective than 'passive approaches' (January et al., 2011). In other words, the program needs to be active, hands-on and practiced with or focused upon specific skills (Durlak et al., 2010, 2011).

Positive psychology, in education, refers to the experience and expression of positive emotions becoming aware and utilising individual strengths in achieving own and collective goals. It focuses on 'enabling' factors such as positive emotions which facilitate adjustment, resilience, growth and well-being to prevent or reduce depression, anxiety and hopelessness (Seligman et al., 2009). Seligman (2011) underlines five key areas of well-being to be taught in school, namely, positive emotions, engagement through strengths/flow, meaning and sense of purpose, positive relationships and accomplishments (Seligman et al., 2009). In addition, Noble and McGrath's (2008) suggest foundations in positive education, namely: social and emotional competence, consisting of prosocial skills; positive emotions; experiencing feelings of belonging, satisfaction and pride, safety, excitement and joy and optimism; positive relationships, particularly classroom relationships; engagement through strengths; a sense of meaning

and purpose. Shankland and Rosset (2016) argue, however, that the rise of positive psychology has led to new intervention models within schools promoting wellbeing and positive mental health.

3.2 *The objectives of the development of SEL program*

This development of SEL programs aims to be used as tools in improving the SEL skills focusing on communication skills, interpersonal skills, as well as conflict management skills in order to enhance and foster peer-relationship, and improving SEC. The objectives of the development of SEL programs are as shown on Table 2.

Table 2 The SEL program objectives

<i>No.</i>	<i>Competencies</i>	<i>Objectives</i>
1	Communication skills	To promote the ability to interact and express a good friendship via appropriate language and positive gestures such as responses in different situations, showing acceptance, understanding, appreciation, gratitude, and honour.
2	Interpersonal skills	To promote the ability to make relationships between oneself and others such as expressions of generosity, love and care for others, sharing, sacrifice, and unity.
3	Conflict management skills	To promote the ability to manage conflict or problems resulting in decreasing violence and not causing new problems, being able to propose acceptable ways to eliminate conflict, and using reasons to solve problems instead of violence.

3.3 *Learning activities in the development of SEL programs*

Several learning activities were designed to build relationship among the students and focus on learning process, collaboration and reflection such as role playing, drama, recreational games, discussion, etc. Activities can be done by working in pairs, small groups, groups of 4–5, or big groups depending on the objective of each learning activity like to encourage students to interact with friends (see more in Table 3).

The development of SEL program and its implementation in the classroom were planned and employed by following these steps.

- Step 1 Introduction/lead in: In this step, multimedia, such as social stories, short clips, or music, etc. in which the content was consistent with the objectives was presented in order to attract learners. Not only being media linked to the lesson, it also acted as an accurate symbolic model suitable for the situation.
- Step 2 Experience activity: To promote exchanging ideas and interaction between learners, the learners joined various forms of face to face activities depending on the objective of each activity, e.g., recreational games, talking, discussion, role play, artwork, personal experienced stories, singing, dancing, team competition, etc.
- Step 3 Conclusion and reflection: This step was about summarising concepts and allowing learners to reflect on ideas by means of discussion and talking after

each learning activity. Learners would participate in the discussion about learning activities to train them to reflect on ideas, extend, and apply their, thinking by identifying knowledge gained, the story learned, and apply it to themselves. This step was to promote learners to link what has been learned to apply in real life via discussion three questions.

- Question 1 Reflect: Using questions to motivate learners to talk about the learning activities or learning experience; for example, “How do you feel about the activity today?” or “What do you learn from the activity today?”
- Question 2 Connect: Using questions to motivate learners to compare and connect what one experienced through the activity with previous experiences in life; for example, “What have you learned today?” or “What have you felt today?” or “Have these experiences ever happened to you?”
- Question 3 Apply: Using questions to motivate learners to think or reflect on what they have learned by discussing about applying the idea in real life or in other situations; for example, “How do you apply what you learned today?” or “what would you do if this situation happened to you?”

Table 3 Activities and materials employed in the development of SEL programs

<i>SEL programs</i>	<i>Activities</i>	<i>Material</i>
Unit 1 communication skills		
Introduce yourself	Recreational games	Games equipment
Feelings	Discuss, role play	Social story 1
Good expression 1	Discuss, role play	Social story 2
Good expression 2	Discuss, role play	Social story 3
Positive communication	Discuss, role play	Social story 4
Positive interaction 1	Discuss, role play	Social story 5
Positive interaction 2	Discuss, role play	Social story 6
Unit 2 interpersonal skills		
Sharing/sacrifice	Cooking sharing	Art supplies
Affection and compassion	Recreational games	Games equipment
Kindness/generosity	Volunteer activities	Sample VDO
Harmony/teamwork	Sports games	Sports equipment
Unit 3 conflict management skills		
How to ‘coping conflict’	Recreational games	Sample VDO
Conflict situation		
‘Being mocked’	Acting for problem-solving	Social story 7
‘Being bullied’	Acting for problem-solving	Social story 8
‘Being misunderstood’	Acting for problem-solving	Social story 9

3.4 Learning materials

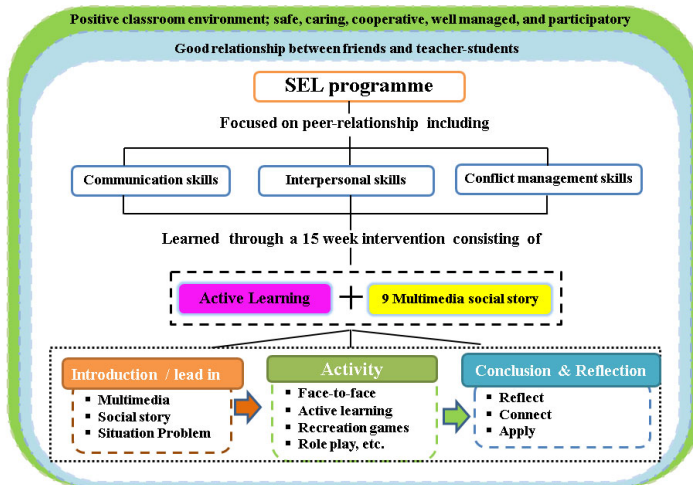
Each learning activity was supported by materials as learning scaffolds for students’ attention and guide them through learning process, such as accessories for recreational games, worksheets, art supplies, sports equipment, etc.

In this study, nine multimedia social stories were created by the researcher and they were used to foster students’ attention, guide them to understand prosocial behaviours, and increase students’ perspectives adjustment (see Table 4). Each story was designed through cartoon characters resembling learners in term of ages and the scenes were designed by adopting real-life situations which occurred in schools and related to social and emotional problems. Each story contains a socio and emotional conflict or problem that is resolved through positive behaviours on the part of characters in the story (see example of multimedia social story in Appendix).

Table 4 Multimedia social stories included in the intervention

Story	Title
1	Situation ‘friends make me angry’
2	Situation ‘giving encouragement to a friend’
3	Situation ‘forgiveness to friends’
4	Positive conversation ‘my friend makes mistakes’
5	Positive conversation ‘friend’s advantages’
6	Positive conversation ‘my friend feels disappointed’
7	Conflict situation ‘being mocked’
8	Conflict situation ‘being bullied’
9	Conflict situation ‘being misunderstood’

Figure 1 Framework of the development of SEL programs (see online version for colours)



Implementing SEL programs, researcher to arrange the classroom in a positive atmosphere in order to provide conditions for learning as being safe, caring, cooperative, well managed and participatory, foster working relationship, increase student participation, and model constructive behaviours as shown in Figure 1.

3.5 The reliability of the development of SEL programs

The learning activities were approved by three experts specialising in psychology and guidance, curriculum and pedagogy, and educational technology to meet the standard and content validity. The overall results of testing indicated that item indices of congruence ranged from 1.00 to 0.67 with an average of 0.89.

The multimedia social stories designed by adopting social situations were evaluated by using a five-point Likert scaled by three experts in multimedia design. The values determined by those experts are $M = 4.39$ ($SD = 0.48$) which was described as good.

The range, average, and standard deviation indicated that the content experts were in agreement that all items corresponded to intended objectives, demonstrating strong content validity for the learning experience plan.

4 Implementation

4.1 Procedures

This study was certified and approved by the Center of Ethical Reinforcement for Human Research, Institutional Review Board, King Mongkut's University of Technology, Thonburi, Thailand (KMUTT-IRB).

The researcher explained the objectives, research process, duration, benefits and potential impacts to participants (students, parents, and teacher). When they agreed to participate in the experiment, they were then asked to sign a consent form.

Pre and post SEL intervention, students were asked to complete the strengths and difficulties questionnaire (SDQ), students (self-report version). Parents and teachers also asked to complete the SDQ-parent-report, SDQ-teacher-report-version).

4.2 Participants

The objective of this study is to determine how the development of SEL programs affects peer-relationship after being implemented with to the sample group which is students in a school that has the biggest number of cross-cultural students in Bangkok. The participants consisted of 15 male's and 21 female's age from 10–12 studied in the fourth grade and in socio-economic and culturally diverse classroom. 30 students out of 36 were Thai and the rest were from Myanmar, Cambodia and Laos. These students participated in learning activities of SEL programs for 15 times and each time took one hour or one hour and a half.

In addition, the class teacher and parents/guardians were asked to be participants helping to assess students' behaviours before and after engaging in the SEL intervention.

4.3 Instruments: the SDQ

Since the study aimed to find the effectiveness of the development of SEL program implementation in decreasing problem behaviours and fostering the positive ones, the SDQ in the Thai version was used in evaluating students' behaviours before and after participating in the program. The students were given SDQ self-report version to assess themselves while the class teacher and parents observed students' behaviours and assessed those behaviours through the SDQ teacher-report and parent-report version.

The SDQ (Goodman et al., 2000; Goodman, 2001) is available in many languages, and Goodman and Scott (1999, p.17) explained, the SDQ was designed to screen for negative and positive behaviours according to 25 attributes grouped within five scales as follows: conduct problems, inattention, hyperactivity, emotional symptoms, peer problems, and prosocial behaviour. SDQ is one of the most widely used screening and monitoring questionnaires for child psychological problems, and it is freely available online and easy to complete. Woerner et al. (2011, p.43) concluded that "the Thai version of the SDQ had sufficiently favourable psychometric properties." They also noted that the norms for the Thai SDQ identify probable behavioural problems if the total difficulties score is between 19 to 40 in the parent-rated form, between 17 to 40 in the teacher form, and/or between 19 to 40 in the self-report.

5 Results

When the pre and post SDQs used to assess students' behaviours were analysed, the results indicated that children's total difficulties behaviours decreased after participating in the development of SEL program intervention as can be seen in Figure 2. Table 5 shows the results of the comparison of SDQ scores between the pre and post SEL program intervention with all participants.

The analysis from the SDQ parent-report version shows that there is significant difference in all determined problem behaviours between the pre and post-SEL program intervention. The scales of each difficulties behaviour is emotional problems; $p < 0.05$, SDQ ($t = 5.29$), conduct problems; $p < 0.05$, SDQ ($t = 2.75$), hyperactive/inattention; $p < 0.05$, SDQ ($t = 3.80$), peer problems; $p < 0.05$, SDQ ($t = 6.68$).

The results of data analysis from the SDQ teacher-report version reveals that the pre and post SEL program intervention assessed students' problem behaviours are significantly different in all subscales of difficulties behaviours as following: emotional problems; $p < 0.05$, SDQ ($t = 3.41$), conduct problems; $p < 0.05$, SDQ ($t = 2.37$), hyperactive/inattention; $p < 0.05$, SDQ ($t = 2.09$), peer problems; $p < 0.05$, SDQ ($t = 5.39$).

Results from the analysis of parent-report version and teacher-report version are consistent. Differences in the means of the pre and post program intervention were significant for parents and teachers for all subscales. In addition, the analysis shows that students' peer problems are the most significantly decreased in number.

From the analysis of student-report version assessed themselves in difficulties behaviour, the results are also significant except for emotional problems; $p < 0.05$, SDQ ($t = 0.13$) and hyperactive/inattention; $p < 0.05$, SDQ ($t = 1.83$).

Table 5 Comparison of pre- and post-SDQ scores for all participants as reported by parents, teachers, and student

SDQ subscale	Parent/guardian (n = 36)			Teacher (n = 1)			Student (n = 36)								
	Pre Mean (SD)	Post Mean (SD)	t	Pre Mean (SD)	Post Mean (SD)	t	Pre Mean (SD)	Post Mean (SD)	t						
Emotional problems	4.47	3.80	1.62	5.29*	3.80	1.49	3.47	1.32	3.41*	3.72	1.81	3.69	0.98	0.13	
Conduct problems	3.08	2.86	1.42	2.75*	2.88	1.45	2.75	1.32	2.37*	3.08	1.52	1.55	1.03	7.91*	
Hyperactive/inattention	3.36	2.04	2.80	1.70	3.80*	2.72	1.50	2.61	1.44	2.09*	2.69	1.70	2.30	1.12	1.83
Peer problems	5.16	1.23	3.80	1.26	6.68*	4.41	1.00	3.83	0.81	5.39*	4.86	0.64	4.19	0.62	5.57*
Total difficulties score	16.08	4.01	13.27	3.46	9.18*	13.83	3.69	12.66	3.33	6.17*	14.36	3.77	11.75	2.23	6.71*
Prosocial behaviour	6.86	1.56	7.16	1.44	-2.93*	7.41	1.32	8.22	1.31	-5.81*	4.72	0.45	8.22	0.90	-22.31*

Note: *p < 0.05.

Hence, the results of comparing the problem behaviours before and after participating in the development of SEL program intervention indicates that the programs are effective in decreasing students' problem behaviours.

Figure 2 The comparison results of total difficulties behaviours of the pre and post-SEL program intervention (see online version for colours)

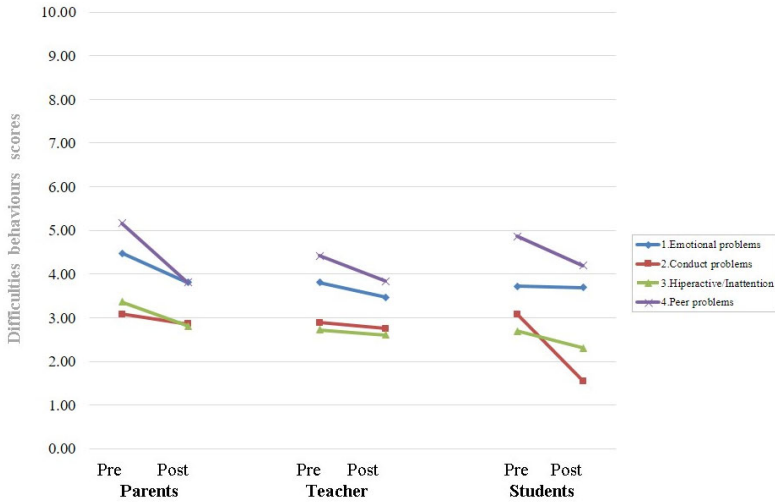
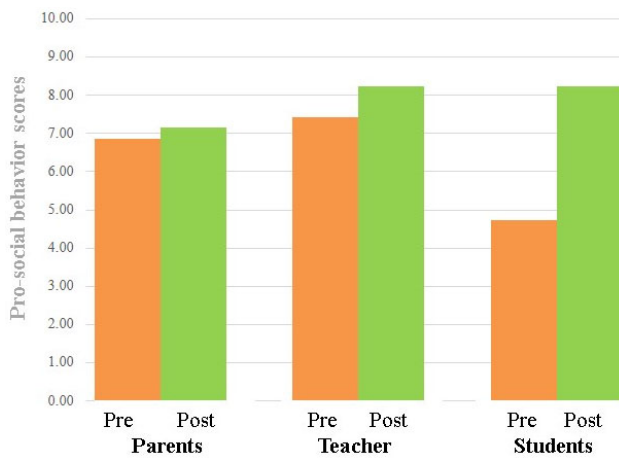


Figure 3 Comparison results of prosocial behaviours from the pre and post-SEL program intervention (see online version for colours)



Moreover, the scale of prosocial behaviours increases after students participated in the SEL program intervention. The results from the analysis of parents', teacher's and students' report version are consistent as shown in Figure 3. Differences in means of the pre and post SEL program intervention are significant. Table 4 signifies that the comparison of assessment of positive behaviours before and after participating SEL programs are significantly different. The data analysis from student-report version, parent-report version and teacher-report version shows the accordance with prosocial behaviour, $p < 0.05$, SDQ ($t = 2.93, 5.81$ and 22.31 , respectively).

6 Discussion

The objective of this study is to develop an intervention to improve the SEL skills of learners in a cross-cultural school context. The results show that the programs are effective in reducing problem behaviours and increasing positive behaviours for students who attended the SEL program intervention.

The development of SEL program implementation in this study was carried out for 15 weeks; however, the learning outcomes as shown in the SEL framework (Figure 1) brought positive changes to all behaviours determined in the study. In other words, positive behaviours are increased and problem behaviours are decreased after SEL program interventions were adopted and employed in the focus group.

Learning activities as shown in SEL framework (Figure 1) provided a guideline in designing learning activities which the contents are able to promote and enhance SEC through creative and active learning designed for students' enjoyment and participation. The findings from the development of SEL program implementation show that elaborate designing of SEL programs integrated with active learning can enhance social-emotional competencies since the main emphasis of the SEL programs is to create a positive climate, to encourage participation and to foster good relationship. All these are crucial elements to effectively enhance the learning of social and emotions in a classroom and this concept is consistent with the suggestion of CASEL (2012).

The SEL framework in this study adopted a variety of active learning activities such as collaborative interaction, discussion, reflection, problem-solving and decision in a face-to-face context which were able to encourage students to have more interaction between each other through doing activities in pairs, groups of 4 to 5, or even big groups. This is similar to the suggestion of Johnson et al. (2007) that the development of important social and emotional skills such as collaborative problem solving and positive conflict management is achieved when group members communicate effectively, encourage and offer assistance to each other, willingly share tools and resources, and are able to manage conflict constructively. Likewise, Misra and Gupta's (2017) has found that this active learning technique has been found to be quite effective since the children are essentially engaged in activities that encourage them to be involved in analysis, synthesis and evaluation of subject content, thereby internalising the learning instead of mere mugging up of the concepts.

The findings of this study conform to the study of Friedlaender et al. (2014) in helping and allowing students to plan and do activities together which help to encourage them to participate more in learning process, developing interpersonal communication including working as a team. This is accordance with the study of Pianta et al. (2012)

which stated that student engagement is promoted within SEL through a variety of instructional strategies, including role modelling, role playing, and opportunities to practice and receive feedback. Moreover, the findings are consistent with Knoff's (2001) study, which uses role-playing and group activities to help students learn and enhance their interpersonal, survival, problem-solving, and conflict resolution skills. There are some researches applied those learning activities to enhance students' potential such as intervention with interactive online games (Craig et al., 2016; Zhu et al., 2016).

Another important factor resulting in students' problem behaviours decreasing after participating in SEL program is applying multimedia social stories which complement students' understanding toward expected reactions or the targeted SEC needed to be developed. The stories illustrated situations and their conflicts encouraging students to investigate the problem, making them aware of the situations, and having them find positive solutions. This helps students learn how to solve problems in a positive way and how to apply problem solving skills in their real life appropriately. Designing multimedia social stories was completed meticulously elaborately and in a respectful way to nations and races. Multimedia social stories adopted daily situations happening in school where the cartoon characters illustrated problem behaviours causing a negative effect to the relationship with friends. Moreover, showing positive behaviours in problem solving became a tool for self-improvement since it guides good and desirable behaviours to students. These are advantages of multimedia social stories as they can be used to prepare students for encountering social situations as well as behavioural and situational changes (Brailas, 2017). Multimedia social stories employed in this research are similar to the research conducted by Zhu et al.'s (2016) when he designed interactive social stories (ISS), a game for teaching social skills about greeting and making new friends in school aiming to encourage students to communicate and express themselves appropriately in real life situations. The findings from this research support the use of multimedia social stories in an instructional approach since they are able to reduce problem behaviours and foster positive behaviours (Mancil et al., 2009; Crozier and Tincani, 2007).

This research was only conducted over a short-term, so it will be more effective if the period of study is extended. Long-term study will be necessary for searching methods to decrease problem behaviours, particularly emotional problems and hyperactive/inattention as shown in students' post assessment which was not significantly different. The results of this research are consistent with the results found by Iaosanurak et al. (2016), who used technology and activities to develop learners' EI for eight weeks. He found that learners' EI development in some aspects did not have any significance and he suggested to spend much time on intervention. According to these findings, a suggestion for the further studies is to focus on finding methods or activities that help to reduce emotional problems and hyperactive/inattention or to enhance the development of students' EI.

This study has some limitations which require further studies. One of the limitations is that the study was a preliminary design and was initially trialled in a small sample group. Since the research had no control group for comparing the results with the sample one, analysing behaviours before and after participating the development of SEL program intervention was applied to merely find the effectiveness of the designed program. It is necessary for further studies to implement and test the programs with the bigger group in order to emphasise and assert its effectiveness. In addition, the use of behavioural assessment for parents found that some foreign parents had a language barrier because they cannot read Thai and translators were required for communication. Therefore,

further studies should take this point into consideration, and elaborately find tools that can create mutual understanding for participants as well as a plan to use tools for keeping data more concisely and carefully.

7 Conclusions

In conclusion, the uniqueness of the SEL programs developed by the researcher is the capability to promote SEC to foster peer-relationship since the programs allowed students to participate in learning through various active learning.

The development of SEL programs focus on two important elements of interventions:

- 1 The specific competencies that are targeted for interventions emphasise good communication skills, good interactions and conflict management and these skills importantly influence peer-relationship as one or more of the SEL competence domains.
- 2 Characteristics of the learning environmental context such as the positive classroom climate and positive relationship among students, and teacher-student are essential to encourage students to participate in designed active learning activities of the development of SEL program.

These two are active ingredient to make the development program succeeded in changing students' behaviours, namely negative behaviours were decreased and positive ones were fostered. Another strength of this research is the multimedia social stories which the design focused on advantages of using the programs in the classroom and was based on existing learning materials. The development of SEL program framework which originated from this study can be used as a guideline for educators or teachers in applying it to an instructional approach aiming to reduce problem behaviours or enhance SEC in order for creating good relationships with friends.

Further studies can adapt and apply the developed learning activities from this research to different levels of education such as secondary level or other contexts. The further studies can focus on studying other methods of teaching and classroom activity management to develop SEC in other aspects.

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Appendix

An example of a multimedia social story was the fourth story 'my friend makes mistakes' showing collaborative situations, but a problem showed up when a friend in the group damaged the group work (see Figure A1).

Then the question came up "What will you do to resolve this problem?" Students had two choices; negative or positive answer (see Figure A2).

Figure A1 Screenshot of multimedia social story: 4 'friend makes mistake' (see online version for colours)



Figure A2 Shows two choices with 1 negative and 1 positive answer (see online version for colours)



If students chose a negative response like blaming, their friend would become sad and uncomfortable which is the result of negativity (see Figure A3).

On the other hand, if students chose a positive response, positive behaviour would be shown in a form of forgiveness (see Figure A4).

In the last part, suggestions to solve problem were presented concluding forgiveness and attempt to solve the problem together (see Figure A5).

Figure A3 Shows negative response symbol (see online version for colours)

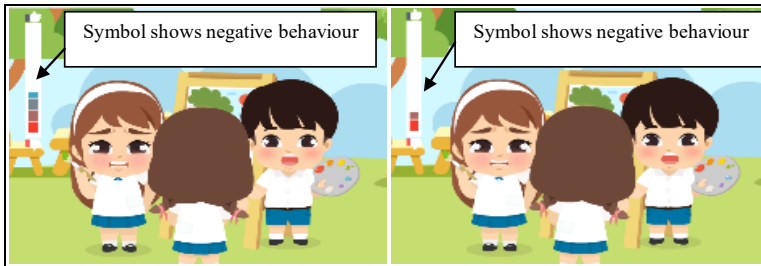


Figure A4 Shows positive response symbol (see online version for colours)

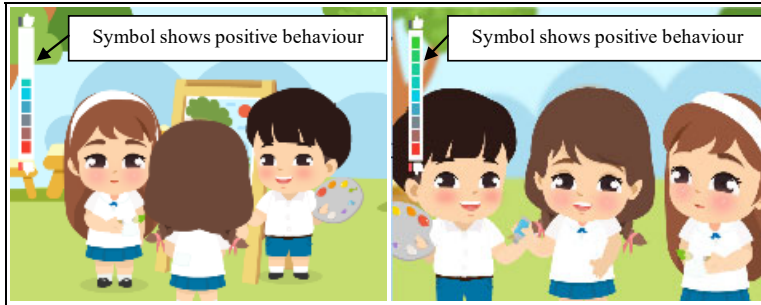


Figure A5 Suggestions to rectify the mistake (see online version for colours)

