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COLLABORATIVE LEARNING: A KEY TO ENHANCE STUDENTS' SOCIAL INTERACTION SKILLS

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ABSTRACT

In 21st century education, students are required to be active learners in the learning process from various aspects. Therefore, besides planning for students' academic achievement, there is a need for development of their desired skills such as communication and interaction with the society. In this regard, collaborative learning plays an important role in developing students' social interaction skills. This research aims to identify students' perception towards implementing collaborative learning in classrooms. Moreover, this research determines students' understanding, knowledge, and attitude towards collaborative learning in order to identify the relationship between collaborative learning and some demographic factors, such as gender and family background. In addition, this study also examines the relationship between collaborative learning and students' interaction skills. The survey questionnaire was randomly distributed to a total of 100 secondary school students in Klang, Malaysia. Results show that students prefer to work in groups rather than individually. Therefore, collaborative learning shows a significant effect on students' social interaction skills. Students believe that collaborative learning encourages everyone to work best with others and enhances socialization among members.

Keywords: *Collaborative Learning, Social Interaction Skills, Education, Malaysia*

INTRODUCTION

Collaborative learning has an important position in education, which is illustrated by improving social climate, as well as academic achievement in schools (Lavasania, Afzalia, Borhanzadeha, Afzalia, & Davoodia, 2011). Previous research revealed that collaborative learning stimulates higher order thinking skills, boosts incentive, and strengthens interpersonal relationships (Hurst, Wallace, & Nixon, 2013; Le, Janssen, & Wubbels, 2018; Pang, Lau, Poh, Cheong, & Low, 2018). Autonomous learning is expected from each student, and students can acquire this ability from collaborative learning by observing and learning from other people. In some countries, it was highlighted that knowledge acquisition through collaborative learning is a means to improve the quality of national education. As a critical element, collaborative learning affects a wide variety of abilities for students to enhance their performance through cognitive, psychological, and social domains as it is an efficient way to test individual differences (Lavasania et al., 2011).

Collaborative learning is effective in cultivating students with strong competencies. The structure of collaborative learning can be applied in establishing relationships among students from constructive and supportive perspectives (Cohen, 1994). A large of number of studies were conducted on the effects of

different types of collaborative learning on students' academic performance, as well as the effects of various structures of collaborative learning on students' social interaction. For example, the findings of Hurst et al. (2013) and Bellack (1997) indicate that collaborative learning has a positive influence on students' achievement and social communication capability.

In line with other nations, quality education is the core foundation for all educational institutions in Malaysia. According to Malaysia's philosophy of national policy, the main aim of the education system is to develop students who are not only knowledgeable and skilled, but also have a strong sense of morality to reach a high standard of individual well-being. This policy helps students to be capable of contributing to the harmony of their family, community, and country (Ministry of Education, 2012). Therefore, the Malaysian educational philosophy emphasizes the importance of a balanced development of individuals for the benefit of the society. In addition, students are required to attain good academic achievement, as well as adequate social capabilities for their future career. The need for collaborative learning is also highlighted in the Malaysian Education Blueprint (2013-2025), which stresses computer-supported, collaborative learning (MOE, 2013).

The application of collaborative learning activities in Malaysia has received extensive attention from the Ministry of Education. A research on collaborative learning shows that group learning has a positive impact on students' academic performance and their social cognition improvement (Noor Aileen Ibrahim, Mohamad Syafiq, Thuriya Mohd, Nur Ain Ismail, Dhayavari, Azurawati Zaidi, & Siti Maryam Ali Yasin, 2015). Neo, Neo, and Kwok (2009) conducted a study on a multimedia cooperative learning experience among students in Malaysia, and their study found out that students enjoyed being involved in a collaborative learning community, which helps them to achieve a common goal and improve certain social skills, which include leadership, communication, interpersonal skills, and the awareness of students' responsibility stimulated by collaborative team members.

However, despite the mentioned benefits of collaborative learning, the awareness of teachers in applying collaborative learning in the teaching process is still not enough. There are still many schools that lack teachers' training in collaborative learning activities (Kasirun & Salim, 2004). The application of collaborative learning, as well as the awareness of teachers on collaborative learning in school education, has a significant role in shaping the holistic development of students (Koo, 2008; Lim & Hwa, 2007). Therefore, studying the effects of collaborative learning on social interaction skills among secondary school students is crucial for the effectiveness of education to realize its potentials. A number of studies illustrated that many children and young people are not good at building and keeping relationship with their peers. Social interaction skills are essential for everyone nowadays, which involves all aspects of life and future career. Social skills are important in the way young people communicate, interact and work in an interconnected environment (Johnson, Johnson, & Holubec, 1998; Siew, Noorizah Mohd Noor, Adzuhaidah M. Taha, Lay, & Noor Baizura Abdul Aziz, 2016).

In spite of the fact that collaborative learning can be considered as an effective strategy that is closely linked with students' academic performance (Siew et al., 2016), it has yet to be fully applied in schools (Hurst et al., 2013; Johnson, Johnson, & Holubec, 2008). The lack of appropriate collaborative learning practices and programs in the classroom setting may result in poor or inefficient interactive activities and social interaction skills of students. Thus, teachers play an important role in guiding students to practice effective collaborative learning skills through classroom teaching and learning (Siew et al., 2016). Since, collaborative learning is the core of creating a positive school academic and social climate (Peterson & Skiba, 2000), there is a need to conduct more studies on the relationship between collaborative learning and social interaction skills specifically among secondary school students to help in strengthening students' social interaction skills.

Therefore, this study aims to define how collaborative learning exists in and out of the classroom and how it contributes to the successful improvement of social interaction skills of secondary school students. This can be further illustrated by identifying the relationship between collaborative learning and students' social interaction skills. Thus, the following objectives guided this study:

1. To identify students' perceptions on various beneficial aspects of collaborative learning.
2. To identify students' perceptions on possible issues and challenges in regard to collaborative learning.
3. To identify the relationship between various beneficial aspects of collaborative learning with students' social interaction skills.

LITRATURE REVIEW

Collaborative learning pertains to an instructional strategy, which helps to produce various motivational guidelines for implementing instructions that are more realistic in improving students' understanding of the lesson taught. Johnson et al. (2008) stated that a main advantage of collaborative learning is to strengthen students' confidence in a way that it captures students' motivation and enthusiasm by engaging themselves in the learning process. Therefore, this study will determine the level of collaborative learning among secondary school students, to see students' understanding, knowledge, and attitude towards collaborative learning.

Learning as a social interaction can be considered as collaborative learning process. Collaborative learning is built through engagement in collaborative learning activities using various views to accumulate knowledge (Puntambekar, 2006). Johnson et al. (1998) reported that successful collaborative learning consists of five main elements: positive interdependences, face-to-face promotion of interactions, individual accountabilities or personal responsibilities, interpersonal or small-group skills, and group processing. In a normal classroom setting in Malaysia, consisting of students from a diverse cultural background, students gain opportunity to engage and collaborate with students from different socio-economic and ethnic groups. Learning in groups also gives opportunity to students to state their opinions on various matters relevant to their cultural identity. The educational exchange allows students to understand better the background of other ethnic groups, their culture and opinions, to increase their understanding on the lesson and further improving their social interaction skills through the exchange of knowledge. Previous research was done on Malaysian undergraduates' preferred style of collaborative learning activities that were carried out in the classroom (Noor Aileen Ibrahim et al., 2015; Siew et al., 2016).

Collaborative learning is seen as a motivational strategy or a catalyst that consists of different learning circumstances in which learners are gathered in small groups to accomplish a learning outcome (Forsyth & McMillan ,1991). According to Prosser and Trigwell (1999), when students are involved in the learning process to achieve, learning outcomes are said to be connected to factors and processes. In collaborative learning, students value teamwork to achieve a common goal to succeed. This will further allow them to be responsible in making decisions.

Sung and Hwang (2013) stated that group activities involve interactive games, which enable learners to boost their attitude towards learning and increase their academic performance. Moreover, it improves their skills in organizing and sharing technologies in modern learning. Collaborative learning provides a venue for students to brainstorm and evaluate themselves more efficiently (Zins, Weissbert, Wang, & Walberg, 2004). As a result, the interactive approach of collaborative learning gives much space and opportunity for students to develop their critical thinking skills by providing futuristic experiences thus retaining the knowledge they have acquired (Mitchell & Savill-Smith, 2004). According to Yazici (2005), collaborative learning uses peer interaction as the main strategy of learning process to improve students' analytical and social skills for academic achievement. When students work in a group, they brainstorm and perform peer evaluation to reflect on their strengths and weaknesses. Students have the ability to identify the need for constructive interaction among group members.

A foundational theory proposed by Vygotsky (1978) introduces five main skills, which are listening, analyzing, communicating, receiving, and expressing. These skills play an important role in stimulating students' cognition skills, as well their social interaction skills. In addition, Vygotsky's theory states that social interaction, together with the cultural context, has a major influence on the cognitive development of children. Vygotsky claims that children are products of their culture, and they are not exploring the

world of learning alone unless influenced by social interaction. His theory explains that development is an apprenticeship, in which children advance when they collaborate with others who are more skilled. In line with Vygotsky's theory, Gokhale (2000) believed that students who engage in group work or collaborative learning has manifested better performance in critical thinking than learners from a traditional learning background.

Collaborative learning results in participants working together by identifying advantages shared by all group members by working together, learning from each other's knowledge and experience, and being aware that the outcome of the group work comes from each other's contribution and performance. According to previous researches (Salomon, 2000; Staarman, Krol, & Van der Meijden, 2005), collaborative learning can be considered as a modern learning method that is measured as accumulated stages where cognitive thinking is developed, and peer interaction is honed from an active approach. Past studies reveal that problem solving through group activity enhances students' interpersonal and cognitive thinking skills and enables them not only to sustain their knowledge but also to transfer knowledge in other areas. Therefore, training students to work together collaboratively is a key to sustainable knowledge transfer.

Furthermore, collaborative learning is also productive in terms of enhancing student's leadership skills regardless of their gender. In a collaborative learning process in the classroom, female and male students work together collectively and help each other to achieve the group's goal. Accordingly, students not only learn to exchange ideas in the classroom, but they also tend to get carried away with the lesson conducted in class and connect to one another through other forms of social interaction.

METHODOLOGY

Research Design

Following a quantitative research design, this study utilized a deductive approach and administered survey questionnaires to examine the impact of collaborative learning on students' social interaction skills. This study reflects a postpositivist worldview by ensuring an objectivist perspective in explaining a phenomenon (Creswell, 2018). This design is highly suitable in allowing the researcher to achieve the aims of the study primarily in examining relationships between two variables as it follows a standardized procedure of ensuring reliability and validity of the instruments that seek to respond to the specified research questions and test-related hypotheses (Chua, 2016).

Participants

For the purpose of this research, the population of the current study was composed of students who had experience in collaborative learning in secondary schools in Kelang, Malaysia. The students, aged 13 to 18 years old, were randomly selected from five secondary schools to take part in this study. After data cleaning, 100 clear responses consist of 21 male and 79 female students were deemed appropriate for data analysis.

Instrument

A survey questionnaire, containing of 60 items, was used to obtain information from respondents. The items in the study's questionnaire were adapted from Fasawang (2011) and Brown (2008), and they were combined and modified accordingly to meet the research objectives. Moreover, the questionnaire was divided in three sections: Section A- demographic information of participants (5 items); Section B- the perception of secondary students on collaborative learning (30 items); and Section C-the perception of participants related to effect of collaborative learning on social interaction skills (25 items). The questionnaire was based on a four-point Likert Scale with the following descriptors: Strongly Agree=4, Agree=3, Disagree=2, and Strongly Disagree=1. Participants answered each item according to their previous experiences in collaborative learning.

Needless to say, the reliability of the instruments was 0.658 and 0.781 for part A and B. The scale was valid to measure the perceptions of students in collaborative learning. In addition, the internal consistency of the instruments was tested to establish the reliability of the instruments. According to Robert (2009), the values of Cronbach's alpha ranging from .78 to .90 indicates acceptable values that determine the reliability of the instrument. Table 1 below presents the reliability results of the instrument.

Table 1
The Reliability of the Instrument

Subscale	Reliability (Cronbach's alpha)
Collaborative Learning	.87
Social Interaction Skills	.89

Therefore, based on Table 1, the instrument used for this study was considered valid and reliable as determined by previous studies (Robert, 2009).

Data Collection & Analysis

A total of 110 questionnaires were distributed to the participants from public secondary school in Kelang. The researcher gave a short briefing to all participants about the research objectives, and the participants who had experiences in collaborative learning were selected randomly to fill up the survey. The questionnaire took around 45 minutes to be answered, and they were collected by the researcher.

The collected data were analysed using SPSS v. 22. This software was used for both descriptive (frequencies, percentages, mean, and standard deviation) and inferential (Cramer's V test and Spearman's rho test) statistical analysis to get information on students' perceptions regarding collaborative learning and social interaction skills.

RESULTS

A total of 100 secondary students, who were from 13 to 18 years old and had experience in collaborative learning, participated in this study. 29% of them were male and 71% were female. From the data collected, female students were predominant in this study. 86 students stated that they like to work in groups as a part of collaborative learning and only 14 students answered otherwise. Table 2 shows the cross tabulation.

Table 2
Cross tabulation between gender and students' perception on group work

		Gender		Total
		Male	female	
Do you like to work in group?	Yes	24	62	86
	No	5	9	14
Total		29	71	100

The results show that both male and female students are willing to participate in collaborative learning. Male students perform more directly when they express their opinions compared with female students. On the other hand, female students are more active in the discussion by asking questions.

Beneficial Aspects of Collaborative Learning

The first research objective seeks to identify students' perceptions on various aspects of collaborative learning based on their understanding, knowledge, and attitude. As the results show, perceptions of students on collaborative learning were categorised according to the following aspects: academic

benefits, social benefits, and lifelong skills benefits. Tables 3, 4, and 5 show the statistical results of these findings.

a) Academic benefits

In response to research objective one, Table 3 shows the students' views in frequency, percentage, mean, and standard deviation obtained for the first category of academic benefit.

Table 3
Students' perceptions on academic benefits

Items		Strongly agree	Agree	Disagree	Strongly disagree	Mean	Standard deviation
1	Collaborative learning helps to understand better.	21%	76%	3%	0%	1.82	0.458
2	Collaborative learning fostered exchange of knowledge, information and experience.	53%	45%	1%	1%	1.50	0.577
6	Collaborative learning received useful / helpful feedback.	21%	66%	11%	2%	1.94	0.632
7	Collaborative learning got fresh insight.	29%	53%	15%	3%	1.92	0.748
10	Collaborative learning enabled learners to help weaker learners in group.	42%	47%	10%	1%	1.70	0.689
12	Collaborative learning improved performance.	26%	45%	26%	3%	2.06	0.802
13	Learners actively participated in the teaching and learning process.	23%	57%	18%	2%	1.99	0.703
	Overall mean					1.84	0.658

As shown in Table 3, majority of the students agreed that collaborative learning is beneficial for their academic achievement. Students preferred to work in groups to complete the tasks rather than doing it individually. Based on the survey results, 98% of the students (M= 1.50) came to a decision they learned to exchange information, knowledge, and experiences. Moreover, 89% of the students (M=1.77) believed collaborative learning enabled learners to help weaker learners when they work in a group. Members who have more experience or knowledge can help the other group members to solve their problems. Thus, 97% of the students agreed that they understand better (M= 1.82) after they worked in a group.

Based on the results in Table 3, 82% of the students learned some new knowledge from intellectually capable members (M=1.92). Consequently, students agreed that useful feedback can be obtained

through collaborative learning (M=1.94), and learners felt happy and enjoy when they worked in a group (M=1.99). In addition, 71% of the students agreed that collaborative learning actually improved their performance in their studies (M=2.06).

However, the overall mean score for academic benefit of collaborative learning according to the perception of students was 1.84 (SD=0.658). The mean scores of the seven items range from 1.50 (SD=0.577) to 2.06 (SD=0.802). This suggested that students have a high level of perception academic benefits of collaborative learning (Robert, 2009).

b) Social benefits

In line with the first objective of the study, Table 4 shows the students' perception on collaborative learning in terms of frequency, percentage, mean, and standard deviation obtained for the second category of social benefits:

Table 4
Students' perceptions on social benefits

Item	Questions	Strongly agree	Agree	Disagree	Strongly disagree	Mean	Standard deviation
5	Collaborative learning caused a more relaxed atmosphere.	29%	46%	23%	2%	1.98	0.778
14	Collaborative learning was fun.	41%	48%	10%	1%	1.71	0.686
15	I made new friends through collaborative learning.	34%	44%	20%	2%	1.90	0.785
	Overall mean					1.86	0.749

Results show that majority of students agreed that collaborative learning has social benefits for them. Accordingly, most of the students (89%) agreed that they enjoyed and had fun while completing tasks through collaborative learning (M= 1.71). Moreover, 78% of the students agreed that they could be able to make new friends through collaborative learning (M= 1.90). In addition, students felt more relaxed when working in a group through collaborative learning. This might be due to the fact that in collaborative learning, tasks are shared among group members and everyone has to participate for its completion (M= 1.98).

Nevertheless, the overall mean score for the social benefit of collaborative learning according to the perception of students was 1.86 (SD=0.749). The mean scores of the three items range from 1.71 (SD=0.686) to 1.98 (SD=0.778). This could be interpreted as a high level of students' perception on social benefits of collaborative learning (Pettiegrew, 2013).

c) Lifelong Skills

Lifelong skills were another aspect of collaborative learning that students highlighted in their response. Table 5 shows the students' perception on collaborative learning in terms of frequency, percentage, mean, and standard deviation obtained for the aspect, lifelong skills.

Table 5
Students' perceptions on lifelong skills

Item	Questions	Strongly agree	Agree	Disagree	Strongly disagree	Mean	Standard deviation
3	Collaborative learning made problem- solving easier.	31%	50%	18%	1%	1.89	0.723
4	Collaborative learning stimulated critical thinking.	15%	65%	20%	0%	2.05	0.593
8	Collaborative learning focused on collective efforts rather than individual efforts.	27%	58%	15%	0%	1.88	0.640
9	I had great responsibility in collaborative learning activities.	29%	46%	24%	1%	1.97	0.758
11	Collaborative learning enhanced communication skills.	45%	47%	6%	2%	1.65	0.687
16	Collaborative learning fostered team spirit.	37%	52%	8%	3%	1.77	0.723
	Total					1.86	0.687

As shown in Table 5, majority of the students agreed that they could gain lifelong skills through collaborative learning. Accordingly, students were satisfied with collaborative learning since they believed it could enhance their skills that they need in their daily lives. From the survey results, 92% of the students (M= 1.65) agreed that collaborative learning enhanced their communication skills because they would be given the chance to contribute their ideas or opinions in the discussion. Students also learn how to organize their words and deliver their message to their group members.

Moreover, a total of 89% of the students (M=1.77) believed that collaborative learning can help them to foster team spirit because all members need to work together to complete the tasks. Also, 85% (M= 1.88) of the students agreed that they could benefit from collaborative learning since the tasks focus on collective efforts rather than individual efforts. Hence, students feel they have great responsibility in collaborative learning activities.

According to the results, 81% (M=1.89) of the students agreed that collaborative learning makes problem-solving tasks easier for them. In addition, 80% (2.05) of the students agreed that collaborative learning stimulates critical thinking and help them to enhance their problem-solving skills that can be used as a lifelong skill.

However, the overall mean score for effectiveness of collaborative learning as a lifelong skill based on students' perception was 1.86 (SD=0.687). The mean scores of the six items range from 1.65

(SD=0.687) to 2.05 (SD=0.593). This suggests a high level of students' perception on effectiveness of collaborative learning as a lifelong skill (Robert, 2009).

Students Perceptions on Collaborative Learning: Issues & Challenges

The second research objective aims to identify students' perceptions on possible issues and challenges with regard to collaborative learning. Table 6 shows the students' views in frequency, percentage, mean, and standard deviation obtained for the fourth aspect, issues and challenges.

Table 6
Students' perceptions on issues & challenges

Items		Strongly agree	Agree	Disagree	Strongly disagree	Mean	Standard deviation
17	Collaborative learning is a waste of time explaining things to others.	10%	17%	42%	31%	2.94	0.940
18	I felt difficulty getting members to actively participate in tasks.	9%	38%	40%	13%	2.57	0.831
19	Collaborative learning should be encouraged and continued.	36%	58%	5%	4%	1.71	0.608
20	Collaborative learning works best in a group not more than four members.	32%	36%	29%	3%	2.03	0.858
	Total					2.31	0.809

Indicatively, there were two negative aspects in the questionnaire (Q17 & Q18). 73% of the students disagreed that collaborative learning is a waste of time explaining to others. For Q18, the percentage of agreed responses and disagreed responses are closely similar to other items. The results show that 42% agreed and 58% disagreed (M=2.57). It shows that the collaborative learning methods have some flaws regarding wasting time, and students have difficulty to participate actively in task when they work in a group. In addition, the students suggest collaborative learning should be encouraged and continued in learning (M=1.71). It makes the teaching and learning process more effective because nobody is left behind when working in a group. 68% of the students suggest that collaborative learning works best if a group has no more than four members (M=2.03).

However, the overall mean score for the students' perceptions on issues and challenges regarding collaborative learning was 2.31 (SD=0.809). The mean scores of the four items range from 1.71 (SD=0.608) to 2.94 (SD=0.940). This could be interpreted as a high level of students' perceptions on issues and challenges related to collaborative learning (Robert, 2009).

*Relationship Between Collaborative Learni**ng & Students' Social Interaction Skills***

In line with the third research objective, Spearman's Rho test was used to identify the relationship between various aspects of collaborative learning (academic benefits, social benefits, lifelong-skills) with social interaction skills. Given the condition that this research satisfied the need for Spearman's Rho test, this test is used to analyse the data and test the study's hypothesis ($H0_1$, $H0_2$, $H0_3$). The research is a non-directional study and the significance level for 2-sided test is 0.05. Tables 7, 8, and 9 present the results as follows:

$H0_1$: There is no significant relationship between collaborative learning in the aspect of academic benefit with students' social interaction skills.

Table 7
Correlation result between academic benefits and social interaction skills.

Correlations				
			Social interaction skills	Academic benefits
Spearman's rho	Social interaction skills	Correlation Coefficient	1.000	.215*
		Sig. (2-tailed)	.	.032
		N	100	100
	Academic benefits	Correlation Coefficient	.215*	1.000
		Sig. (2-tailed)	.032	.
		N	100	100

*. Correlation is significant at the 0.05 level (2-tailed).

As shown above, the correlation coefficient is 0.215. It shows a weak relationship between students' perceptions on academic benefit with social interaction skills. Even though it is a weak relationship, the *p* value is 0.032 which is less than 0.05. Therefore, the null hypothesis ($H0_1$) is rejected. This means that there is a significant relationship between the students' perceptions on academic benefit with social interaction skills.

$H0_2$: There is no significant relationship between collaborative learning in the aspect of social benefit with students' social interaction skills.

Table 8
Correlation result between students' perception on social benefits and social interaction skills

Correlations				
			Social interaction skills	Social benefits
Spearman's rho	Social interaction skills	Correlation Coefficient	1.000	.206*
		Sig. (2-tailed)	.	.039
		N	100	100
	Social benefits	Correlation Coefficient	.206*	1.000
		Sig. (2-tailed)	.039	.
		N	100	100

*. Correlation is significant at the 0.05 level (2-tailed).

Table 8 shows the correlation results between students' perception on social benefits and social interaction skills. The correlation coefficient is 0.206. It shows a weak relationship between students' perceptions on social benefit with social interaction skills. Even though it is a weak relationship, the *p* value is 0.039 which is less than 0.05. Therefore, the null hypothesis ($H0_2$) is rejected. This means that there is a significant relationship between the students' perceptions on social benefits with their social interaction skills.

$H0_3$: There is no significant relationship between collaborative learning in the aspect of lifelong skills with students' social interaction skills.

Table 9
Correlation result between students' perception on generic benefits and social interaction skills

Correlations

			Social interaction skills	Lifelong skills
Spearman's rho	Social interaction skills	Correlation Coefficient	1.000	.210
		Sig. (2-tailed)	.	.034
		N	100	100
	Lifelong skills	Correlation Coefficient	.210	1.000
		Sig. (2-tailed)	.034	.
		N	100	100

*. Correlation is significant at the 0.05 level (2-tailed)

Table 9 shows the correlation results between students' perception on lifelong skills benefits and social interaction skills. The correlation coefficient is 0.210. It shows a weak relationship between students' perceptions on social benefit with social interaction skills. Even though it is a weak relationship, the *p* value is 0.034 which is less than 0.05. Therefore, the null hypothesis ($H0_3$) is rejected. This means that there is a significant relationship between the students' perceptions on lifelong skills with social interaction skills.

As a conclusion, the results show that there are significant relationships between collaborative learning and social interaction skills. The results in all aspects of collaborative learning show positive relationship with social interaction skills. Therefore, collaborative learning wherein students are encouraged to work in a group will eventually bring a positive impact on their leaning process, as well as their current and future social interaction skills.

DISCUSSION

From the results, the secondary school students in Klang prefer to work in groups learning rather than individually learning in classrooms. Students agreed that collaborative learning has a positive impact and should be implemented in schools. According to Sung and Hwang (2013), students learn best when they are working in groups rather than learning alone.

This research found that students learn to exchange their information, knowledge, and experience with each other through collaborative learning. Collaborative learning enables students to help friends who are weak in their studies. The study reveals that collaborative learning can enhance their communication skills during interaction with peers. Previous researches (Battisch, Solomon, & Delucci, 1993; Fasawang, 2011; Johnson et al., 2008) also found out that successful and effective collaborative learning consists of five main elements: positive interdependence, face-to-face promotion of interaction, individual's accountability, interpersonal or small group skills, and group processing.

According to the findings, all students regardless of their gender are willing to participate in collaborative learning. The findings of this study are similar with the findings of previous researches which were conducted by Hurst et al. (2013), Johnson et al. (1998), and Kasirun and Salim (2004), which claimed that collaborative learning attracts both male and female students to take part in the learning process.

From the results, various aspects of collaborative learning were reported by the students based on their classroom experience. This study shows a higher percentage in sharing ideas among peers as students help each other when they face problems. Showing genuine interest, the students employ patience and understanding towards other students from different cultures while communicating. This finding is in line with previous researches that claim that collaborative learning increases students' involvement, improves problem solving and communication skills, and enhances student achievement (Bellack, 1997).

As a whole, students acquire various social interaction skills when collaborative learning is implemented in the learning process. Collaborative learning gives mutual benefits among the members and makes the learning process more efficient and effective (Yazici, 2005; Johnson et al., 2008; Noor Aileen Ibrahim et al., 2015).

CONCLUSION

Collaborative learning makes the teaching and learning process more creative. It enables students to share their ideas, knowledge, and experience with their peers. Students are given the opportunity to present their ideas in groups and improve their leadership and interaction skills. Students learn to adapt to a different culture while communicating with others. This will eventually contribute to creating a better quality of teaching and learning environment for students.

This research examined the perception of students on collaborative learning and its relationship with social interaction skills. Perhaps, future research can look into students from various levels that can measure students' academic achievement through collaborative learning. Factors such as race, family background, and subjects can be added as a criterion in measuring students' social interaction skills in collaborative learning. Future research can involve both teacher and students' perception on collaborative learning to get a better measurement in terms of effects of social interaction skills through collaborative learning.

The success of collaborative learning is tightly relevant to school's capability to enrich learning methods, sustain the effectiveness of learning, and create a learning environment. The findings of the study show that the positive relationship between collaborative learning and social interaction skills could provide a valuable input to parents, teachers, and school leaders to help students learn better in a contemporary, competitive environment.

REFERENCES

Battisch, V., Solomon, D., & Delucci, K. (1993). Interaction process and student outcomes in cooperative learning groups. *The Elementary School Journal, 94*(1), 19–32.

Bellack, A. S. (1997). Social skills deficits and social skill training: New developments and trends. In H. D. Brenner & W. Boeker (Eds.), *Towards a comprehensive therapy for schizophrenia* (pp. 137-146). Goettingen, Germany: Hogrefe & Huber.

Brown, F. A. (2008). Collaborative learning in the EAP classroom: Students' perceptions. English for specific purposes world. *Online Journal for Teachers. 7*(17). Retrieved from http://www.esp-world. info/Articles_17/PDF/ Collaborative% 20learning.pdf.

Chua, Y. P. (2016). *Mastering research methods* (2nd Ed.). Selangor: McGraw-Hill Education.

Cohen, E. G. (1994). *Designing groupwork: Strategies for the heterogeneous classroom* (2nd Ed.). New York: Teachers College Press.

Creswell, J. W. (2018). *Education research planning, conducting, and evaluating quantitative and qualitative research* (6th Ed.). Boston: Pearson Publication.

Fasawang, P. (2011). The effect of using collaborative learning to enhance students' English speaking achievement. *Journal of College Teaching and Learning, 8*(11), 1-10.

Forsyth, D. R., & McMillan, J. H. (1991). *Practical proposals for motivating students. college teaching: from theory to practice: New Directions for Teaching and Learning*. San Francisco: Jossey Bass.

Gokhale, A. A. (2000). Collaborative Learning Enhances Critical Thinking. *Journal of Technology Education, 7*(1), 22-32. doi: 10.1007/978-1-4419-1428-6_910

Hurst, B., Wallace, R., & Nixon, S. B. (2013). The impact of social interaction on student learning. *Reading Horizons: A Journal of Literacy and Language Arts, 52*(4), 375-397. Retrieved from: https://scholarworks. wmich.edu/reading horizons/ vol52/iss4/5.

Koo, A. C. (2008). Factors affecting teachers' perceived readiness for online collaborative learning: A case study in Malaysia. *Educational Technology & Society, 11*(1), 266-278.

Johnson, D., Johnson, R., & Holubec, E. (1998). *Cooperative learning in the classroom.* Alexandria, VA: Association for Supervision and Curriculum Development.

Johnson, D. W., Johnson, R. T., & Holubec, E. (2008). *Cooperation in the Classroom.* (8th Ed.). Edina, MN: Interaction Book.

Kasirun, Z. M., & Salim, S. S. (2004). *Potential of computer-supported collaborative learning application use in Malaysian schools. The International Arab Journal of Information Technology, 1*(2), 187-195.

Lavasania, M. G., Afzalia, L., Borhanzadeha, S., Afzalia, F., & Davoodia, M. (2011). The effect of cooperative learning on the social skills of first grade elementary school girls. *Procedia Social and Behavioral Sciences, 15*, 1802–1805.

Le, H., Janssen, J., & Wubbels, T. (2018). Collaborative learning practices: Teacher and student perceived obstacles to effective student collaboration. *Cambridge Journal of Education, 48*(1), 103-122. doi: 10.1080/0305764X.2016.1259389

Lim, C. S., & Hwa, T. Y. (2007). *Promoting mathematical thinking in the Malaysian classroom: Issues and challenges. Humanika, 2*(4), 231–237.

Ministry of Education. (2012). *Education in Malaysia: A journey to excellence.* Kuala Lumpur: Education Planning and Research Division.

Ministry of Education Malaysia (MOE). (2013). *Malaysia education blue print 2013-2025: Preschool to post-secondary education.* Putrajaya: Kementerian Pendidikan Malaysia.

Mitchell, A., & Savill-Smith, C. (2004). *The use of computer and video games for learning – A review of the literature.* London: Learning and Skills Development Agency.

Neo, T. K., Neo, M., & Kwok, J. W. J. (2009). *Engaging students in a multimedia cooperative learning environment: A Malaysian experience.* Paper presented at Proceedings Ascilite, Auckland, New Zealand.

Noor Aileen Ibrahim., Mohamad Syafiq., Thuriya Mohd., Nur Ain Ismail., Dhayavari, P., Azurawati Zaidi., & Siti Maryam Ali Yasin. (2015). The importance of implementing collaborative learning in the English as a second language (ESL) classroom in Malaysia. *Procedia Economics and Finance, 31*, 346-353.

Peterson, R. L., & Skiba, R. J. (2000). *How do we know what works in preventing school violence?* Vancouver, B.C: The International Council of Exceptional Children.

Pettiegrew, H., II. (2013). *The perceptions of principal instructional leadership practices on 8th grade Ohio achievement assessment (OAA).* Cleveland State University.

Pang, C., Lau, J., Poh, S. C., Cheong, L., & Low, A. (2018). Socially challenged collaborative learning of secondary school students in Singapore. *Education Sciences, 8*(24), 1-10. doi:10.3390/educsci8010024

Prosser, M., & Trigwell, K. (1999). *Understanding learning and teaching*. Buckingham, UK: Society for Research into Higher Education and Open University Press.

Puntambekar, S. (2006). *Analyzing collaborative interactions: Divergence, shared understanding and construction of knowledge*. *Computers & Education, 47*(3), 332–351.

Robert, R. (2009). *Understanding statistics in behavioral science.* Canada: Wadsworth Cengage Learning.

Salomon, G. (2000). *Technology and education in the age of information.* Haifa, Israel: Haifa University Press.

Siew, M. T., Noorizah Mohd Noor., Adzuhaidah M. Taha., Lay, S. N., & Noor Baizura Abdul Aziz. (2016). Effects of social networking on malaysian secondary school students: Attitudes, behaviours and awareness of risks. *Pertanika J. Soc. Sci. & Hum, 87*(1), 157-168.

Staarman, J. K., Krol, K., & Van der Meijden, H. (2005). Peer interaction in three collaborative learning environment. *The Journal of Classroom Interaction, 40*(1), 29-40.

Sung, H. Y., & Hwang, G. J. (2013). *A collaborative game-based learning approach to improving students' learning performance in science courses*. *Computers & Education, 63*(0), 43-51. doi: http://dx.doi.org/10.1016/j.compedu.2012.11.019

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes.* Cambridge, MA: Harvard University Press.

Yazici, H. J. (2005). A study of collaborative learning style and team learning performance. *Education and Training Journal*, *47*(3), 216-229.

Zins, J., Weissbert, R., Wang, M., & Walberg, H. (2004). *Building academic success on social and emotional learning: What does the research say?* New York: Teachers College Press.