

EFFECT OF ONLINE COLLABORATIVE LEARNING ENVIRONMENT WITH  
INTEGRATION OF TECHNOLOGY TOOLS TOWARDS STUDENTS'  
ACHIEVEMENT, COLLABORATIVE SKILLS AND PRESENTATION SKILLS

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## **DEDICATION**

This project report is dedicated to my father, who taught me that the best kind of knowledge to have is that which is learned for its own sake. It is also dedicated to my mother, who taught me that even the largest task can be accomplished if it is done one step at a time. My beloved wife, Siti Yuhanis binti Mohd Yusri and to all my family members, this achievement came with your bless.

For my colleagues and dedicated, kind hearted lecturer, Dr Noor Dayana binti Abd Halim, thank you very much from the bottom of my heart for your guidance and assist throughout this project report. May Allah repay for your kindness.

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## **ABSTRACT**

The collaborative skill and presentation skill were skills that is necessary for students to be nurture at school. These skills should be mastered by students from todays' generation to be used for future basis The purpose of this study is to investigate the effect of online learning by using online collaborative method that integrates technological tools towards students' achievement in Science learning as well as students' collaborative and presentation skills. Peter Brunn (2014) collaborative learning principle was implemented in this research. The impact of this study was measured by using two types of instruments which is Solar System Test to measure students' achievement meanwhile the checklist of collaborative skill and presentation skill was used to measure students' collaborative and presentation skill. This pre experimental study was conducted on 30 students from Year 4 from a school located at Johor Bahru. Descriptive analysis of Solar System test showed that there was a significantly difference between pre and post-test which increased by 1.9 marks. This result showed that this research had gave positive impact towards students' achievement. Furthermore, the inferential analysis result towards collaborative skill checklist and presentation skill checklist also showed positive impact toward students which can be seen through positive impact towards students' collaborative skill and presentation skill. As conclusion, this research was expected to help other teachers to develop an effective and meaningful teaching and learning process through the implementation of 21<sup>st</sup> century learning approach with integration of technology tools in teaching and learning environment

## ABSTRAK

Kemahiran kolaboratif dan kemahiran pembentangan merupakan kemahiran yang perlu dipupuk sejak dari alam persekolahan lagi. Kemahiran ini perlu dikuasai oleh setiap pelajar generasi kini agar dapat digunakan pada masa hadapan. Kajian ini dilakukan bertujuan untuk mengkaji kesan pembelajaran atas talian dengan menerapkan kaedah pembelajaran atas talian menggunakan kaedah pembelajaran secara kolaboratif yang mengintegrasikan penggunaan alat teknologi dalam pembelajaran subjek Sains terhadap pencapaian murid dan juga kemahiran kolaboratif serta kemahiran pembentangan. Pendekatan pembelajaran kolaboratif yang digunakan dalam kajian ini diaplikasikan melalui prinsip pembelajaran kolaboratif oleh Peter Brunn (2014). Impak kajian ini diukur dengan menggunakan dua jenis instrumen iaitu instrumen Ujian Sistem Suria bagi mengukur pencapaian murid manakala instrumen senarai semak kemahiran kolaboratif dan kemahiran pembentangan digunakan untuk mengukur kemahiran kolaboratif dan kemahiran pembentangan murid. Kajian pra eksperimen ini telah dilaksanakan pada 30 orang murid tahun 4 dari sebuah sekolah di - Johor Bahru. Analisis deskriptif Ujian Sistem Suria menunjukkan terdapat perbezaan yang agak ketara di antara ujian pra dan ujian pos iaitu mengalami peningkatan sebanyak 1.9 markah secara keseluruhan. Ini menunjukkan kajian yang dijalankan menunjukkan keberkesanan terhadap pencapaian pelajar. Selain itu, hasil analisis inferensi terhadap instrumen senarai semak kemahiran kolaboratif dan kemahiran pembentangan turut memberikan kesan yang positif terhadap murid yang mana murid menunjukkan perubahan positif terhadap kemahiran kolaboratif dan kemahiran pembentangan murid. Kesimpulannya, kajian ini dijangka dapat membantu guru untuk mereka bentuk proses pengajaran yang berkesan dan efektif melalui penerapan pembelajaran abad ke-21 dan juga pengintegrasian alat teknologi dalam suasana aktiviti pengajaran dan pembelajaran.

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# CHAPTER 1

## INTRODUCTION

### 1.1 Introduction

Science in primary are about teaching facts, rules and simple theories in the context of product and including the process which are skills in mastering scientific methods (Sumintono, 2015). Education in Malaysia promotes Higher Order Thinking Skills to diversify the learning environment. Higher Order Thinking Skills is abilities of students to make use of the knowledge, skills in making reasons, solving the given task, and creating something new based on the findings (Ministry of Education(MOE), 2013). The needs for science environment learning will depend on many factors, such as the needs of the students and the characteristics of the science program (National Research Council, 1996). For the past two decades, online learning and teaching can enhance students understanding in science and promote good learning science environment. Online learning nowadays can be one of educational platform for teachers and students to choose (Allen, Seaman, Poulin and Straut, 2016).

Achieving this goal, the concept of online learning in science must through proper designing and effective utilization of technology. The National Science Teachers Association (NSTA) defines online learning as the effective learning process created by combining digitally delivered content with learning support and services (Walter 2001). Online learning should significantly enhance science teaching and learning and may be used to extend outside learning experiences.

Online learning usually is based on distance learning method as online learning can be done while students and teacher separate by the distance. Online learning is when learning occurs by using a computer that connected with the internet connection (Vernadakis, 2011). Although online learning do not rigid to distance

based online courses or learning only, but global pandemic that we faced today forced education to coop with the current situation.

Online learning can be used also in the traditional classroom instruction that incorporates the planned and effective use of collaborative with interactive digital tools and resources. Online learning can give many benefits to promote better understanding among student (Hashmatullah and Tahir Hanad,(2020).

Online learning as teaching and learning platform surely faces many challenges. Stability of internet connection, knowledge transfer, and also active communication between peers will be among the challenges teachers will face when conducting online learning (Demuyakor, 2020). Based on the research by Panyajamorn, Suthathip, Kohda, Chongphaisal and Supnithi (2018), they found that learners in Austria preferred traditional learning than online learning method due to communication goals. Some research counters the statement such as by Abuhassna and Yahaya (2018) said that nowadays technologies can take over traditional learning method to provide full learning experience such as communication between peers and teachers. There were many studies have been made to show that online communication can provide students to exchange ideas and content of a course ( Vasala and Andreadou, 2010) Collaborative approach is one approach to students that can be used to promote active communication and feedback in online learning (Rabinovich,2009).

Collaborative learning is defined as a learning method used for learning certain topic by a group of students (Nevine and Rasha, 2015). Collaborative learning is when individual works in a group and each individual is responsible to assist and to contribute information regarding of the topic (Moore and Kearsley, 2012). Online collaborative learning is important as it can promote students to work together actively and teachers act as instructor during online learning process (Hamalainen and Vahasantanen, 2011).

Concurrent with increased technology adoption are pedagogical changes in online learning (Heather, Whiteney and Scott, 2017). They can say that many

approach such as collaborative learning in online learning has increased. When using collaborative approach in online learning environment, collaborative learning comprises the same indispensable features as on site collaborative learning, but they typically unfold differently (Barkley et al, 2014).

So, even in a distance, online learning can also promote collaborative learning towards students. Collaborative learning is important as many new information will be share together thus promoting better understanding among the students. Online learning is best accomplished thorough collaborative learning and participation, which drives online learning itself (Hrastinski,2009). Recent research on online collaborative learning examined how the features of traditional collaborative learning such as intentional design, co-labouring of individuals, and meaningful learning are approached differently in an online course than in a face to face course (Barkley, Major and Corss, 2014; Major, 2015).

Moreover, integration multiple technologies through education is a must nowadays. Due to the recent global health problems, heading on 21<sup>st</sup> century education, the use of technology in education is crucial as students nowadays are familiar with these technologies and they can learn better as technology can assist them in learning. Integration of computer technology can enhance effectiveness of teaching and learning process. It is right to say that almost all ranges of subjects start from mathematics, science, languages, arts and humanistic and other major fields can be learn more effectively through technology based tools and equipment (Ghavifekr and Ibrahim, 2015).

This research focusses on developing online collaborative learning environment with the integration of technological tools in learning Solar System toward students' achievement and collaborative and presentation skills. The aim is to create an effective online learning environment in Science subject to promote better teaching and learning process. This research will help teachers to develop creative learning techniques to deliver learning objectives.



## 1.2 Problem Background

In online learning which there is no face to face interaction, teacher faced some challenges especially using suitable approach when teaching via online learning. Teacher have difficulty in deliver their knowledge accurately to the targeted students and to receive active feedback from students in order to achieve learning objective (Lorna, 2012). The characteristic of online learning which is based on distance learning itself causes difficulty to make group work and building communication among the students (Lester and King, 2009). Bouhnik and Carmi (2013) stated that even online learning become a trend nowadays, online learning might not be suitable for some learner developing their interaction and collaborative skill.

Few research showed that most of students have difficulties in mastering the collaborative skill. Research by Mustafa et al. (2018) found that collaborative among primary students were very low when involving group task. Based on his research, students did not take into consideration ideas and opinion gave by friends and did not want to contribute in group. Negative behaviour can give negative effect towards learning process (Anouschka and Jeroen, 2019). Furthermore, Ekaterina and Suzana (2011) said that students were still weak in developing knowledge because of weak collaboration among peers in group which students cannot gave ideas, lack of teamwork and prefer to be passive when work in group.

Presentation skill also are important teaching and learning process (David et al, 2015). An effective presentation is when a message can be delivered effectively, heard and the content can be understanding (Ayman, 2019). This statement was supported by Rizaldi and Rahimah (2018) said that an effective presentation skill was when a person can deliver his or her ideas clearly through writing and speaking. Presenting in group need teamwork and active discussion to deliver the same objective (Nowreyah et al, 2015). Unfortunately, research by Sitraselvi and Aizan (2016) said that effective presentation skill among students were still at moderate level. Furthermore, Sladana (2014) said that students who had problem in presenting were categorized as shy, lack of confidence and love to avoid in group discussion.

This situation happened because students did not expose to the presentation skill regularly (Ikrar, 2020).

The used of technological tools in online learning also gave benefits where it can help students to understand clearly during learning process and vary the learning activities (Sivaniswary and Lubna, 2020). For example, integration of technological tools in online learning helps to improve teaching and learning process (Asiah et al, 2019). The used of technological tools in learning helps students to interact with the information and it will let the knowledge transfer become easier (Izwan et al, 2017). Irum et al, (2019) in their research said that the used of technological tools in online learning gave positive impact to the cognitive thinking. Furthermore, based on their opinion, with the integration of technological tools in online learning classroom, it will affect the students' motivation, create interesting online learning environment, develop imagination and helps to increase students' knowledge.

This new mode of learning nowadays become a must especially during the global pandemic that people facing today. In Malaysia, online learning has become a quite new way especially for primary and secondary schools for teacher and students in creating teaching and learning environment. Lack of training and online approach for teachers is one of the big issues in creating an effective online learning ( Ghavifekr and Wan Athirah, 2015). Teachers currently are not prepared well enough to this online learning skills and knowledge required for current situation ( Mei et al. 2017)

Other problems faced when using online learning as teaching and learning platform is teacher did not focus on developing students' interaction (Ive Emaliana,2017). In fact, students' interaction is necessary in order to provide constructive feedback to give teachers important information the level of understanding of their students and ways to improve their teaching method (Muirhead, 2004). Teachers can predict students' achievement level by using students interaction which have low interaction and high interaction during online learning ( Jaggars, Edgecombe, and Stacey, 2013)

Learning Science is based on mastery the concept, process and language of Science. This is important to build students' understanding in the Science theory and concept. Science syllabus in primary school that need to be master consist of five themes which are Inquiry of Science, Life of Science, Science Physical, Science Materials, Earth and Space, and Sustainable Technology. (Kamisah and Neelavany, 2010).

Based on Bambang, (2015), Science subject often considered as a hard subject. This is because based on his research findings, it was proven that students' impression in learning Science is difficult because involving many facts, concept, application of Science to remember and understand. Furthermore, many teaching and learning process were based on drilling, answering question and teacher centred approach causing lack of interest by students to learn and focus on Science subject in the classroom (Sopia et al., 2009).

Building active group work and presentation skill among students during online learning is other challenges faced by teachers. Many teachers focus on developing appropriate tools to support collaborative learning and to assist teachers to respond to the need of students (Capdeferro and Romero,2012). There were least area of research that focuses on developing the active virtual learning environment and building up students interaction during online learning using the tools as to promote collaborative online learning (Al-Rahmi, Othman and Yusof,2015; Hyvonen and Jarvela. 2016). In this research, teachers will act as a facilitator to enhance communication skills among students during collaborative online learning.

From the problem discussed above, it is proven that implementing of online learning in teaching and learning process is important nowadays and the most crucial part is how to integrate active pedagogy to enhance students' collaboration and communication skill among peers and teacher. Therefore, the study related to integration of technology to support online learning and foster the collaborative approach is important to be carried out to achieve learning objective and the lesson is more meaningful to students. In this research, collaborative learning will be integrating in online learning to provide students active participation.

### **1.3 Problem Statement**

Align with the 21<sup>st</sup> learning century approach, ministry of education has emphasized 21<sup>st</sup> learning skills which are collaborative skill, presentation skill, creative thinking skill and critical thinking skill (Azizah and Aaniza, 2019)). Teacher must develop these skills among the students during teaching and learning process (Tarbutton, 2019). Based on the needs of 21<sup>st</sup> learning century, collaborative skill and presentation skill are important to be mastered by students (Areti, 2018). Collaborative skill occurs based on the collaboration and participation of students in group or task (Fiky et al., 2018)). These skills can promote active participation, contribution of ideas in completing certain task (Latip et al.,2020). Meanwhile, presentation skill can be done orally involving knowledge transfer (Ron et al.,2016). Presentation skill can promote effective teaching and learning process (Khoiri et al.,2021). Recent study by Diana and Masitah (2015) showed that collaborative and presentation skill among students are still low. Research findings by Miftari (2013) showed that most of students who did not have good collaboration with students and weak in delivering information orally were students who is passive in class.

Despite of facilities provided such as Google Classroom initiative, the usage of online learning among teachers is still low even during the pandemic COVID-19 which force the school to be close. Teachers have difficulty in fully maximized the usage of technology provided to come up with online learning approach (Wan Hassan, Ariffin, Ahmad and Zulkiflee, 2020). This statement is supported by Ghavifekr et al. (2014) found that many teachers in Malaysia is at moderate level in using online technology based teaching and learning. Besides that, researchers found out that most of the teacher can utilize the technology but neglecting in encouraging students to use the online learning tools. Many research conducted to see how teachers can use technology effectively in the classroom (Mei Lick et. al, 2017). Teachers that uses technology tool in pedagogy can helps improving students' achievement, motivation and communication skills.

Research by Educational Technology Division of Malaysia (2017) stated that online learning not become an attraction to students because teacher uses lack of

online tools to diversify their learning technique when online learning integrated in teaching and learning. Most teachers can only utilize word processing application and few tools in teaching. Limited resources and support from the administration become factors teacher's capability of using multiple online tools for online learning and teaching (Rabah, 2015)

Other issue with online learning is that teacher always using teacher centred approach (Giorgi and David, 2020). Thinking of late response from students, time consuming and other making teachers gave lectures for the whole class session (Nagaraju, Madhavaiah and Peter, 2013). This will create a dull learning environment as students did not have a chance to build up communication between peers, sharing opinion and lack of activity that need to be discuss in groups (Ive Emaliana, 2017)

Furthermore, students in school are more likely excited when teachers use technology in teaching as today's generation are grown with many technologies as they are digital natives. Primary students are the most eager person that want to see teachers to use technology in the classroom. Research also shows that teacher and students are more interested in applying technology outside from the classroom (Nina Sarkar, Wendy Ford and Christina Manzo, 2017). This shown that there are room for teacher to integrate technological tools in a way of online learning.

Choosing inappropriate teaching and learning approach can influence students' collaborative skill. Ineffective collaborative activity will cause lack of interest among students while doing group discussion. Based on (Ha Le et al. 2017) there were few students avoiding from joining group discussion because they cannot focus with the topic of the discussion. Furthermore, he added that students who were smarter did not have interest in helping, sharing knowledge and motivate other to complete the assignment and tend to do activity alone. This research finding was supported by (David and Michael, 2011) said that students' teamwork in completing group activity were very low.

Other than that, presentation skill also is an important skill to be master by students (Sugito et al, 2017). Presentation skill that happen in writing or speaking involves sharing knowledge, ideas and result from discussion to others (Farrell et al, 2019). In education context, presentation skill occurs when teacher deliver their information and knowledge during teaching and learning process to the students (Yasemin and Kaymakci,2016). So, it's become teacher responsibility to create and develop presentation skill among students thus creating effective learning environment (Diana et al, 2018). However, research findings from Al-Nouh et al (2015) showed that students' presentation skill were not satisfactory. This supported by Chandren and Yaacob (2016) said that many students can not present well in class because of passive attitude during learning process occur.

Although integration technology tool in education is important, there are few studies shows how teacher integrates technological tools in online learning to promote collaborative approach among students (Samira Nikian, Faizah Mohamad and Marzila Aziz, 2013). During the global pandemic, teacher must challenge themselves to use online learning to enhance students' collaborative learning skill as well as communication skill to achieve active teaching and learning environment (Muhammad Adnan and Kainat Anwar,2020). Integration of technological tool to promote collaborative learning is describe in this study.

#### **1.4 Research Objectives**

This research is to find out the effect of collaboration learning with integration of technological tools toward students' communication skills. The research objectives as follow:

- (a) To develop online collaborative learning environment in google classroom with integration of technological tools in learning Solar System

(b) To investigate the effect of online collaborative learning environment in google classroom with integration of technological tools in learning Solar System towards students' achievement.

(c) To investigate the effect of online collaborative learning environment with integration of technological tools in learning Solar System towards students'

(i) collaborative skill

(ii) presentation skill

## **1.5 Research Question**

There are two research question to find out the effect of collaborative learning with integration of technological tools towards students; communication skills.

(a) What is the effect of online collaborative learning environment in Google Classroom with integration of technological tools approach in learning Solar System with students' achievement?

(b) What is the effect of online collaborative learning environment in Google Classroom with integration of technological tools approach in learning Solar System with students'

(i) collaborative skill?

(ii) presentation skill?

## **1.6 Concept of Framework**

Conceptual framework is important in doing research. Conceptual framework is a guideline for researcher throughout the research so that the result is more accurate and meaningful (Dickson Adom et al, 2018). Conceptual framework built

based on recent knowledge and supports problem statement and research question (Tonette and Maria, 2009). Figure 1 shows the conceptual framework that used in this research.

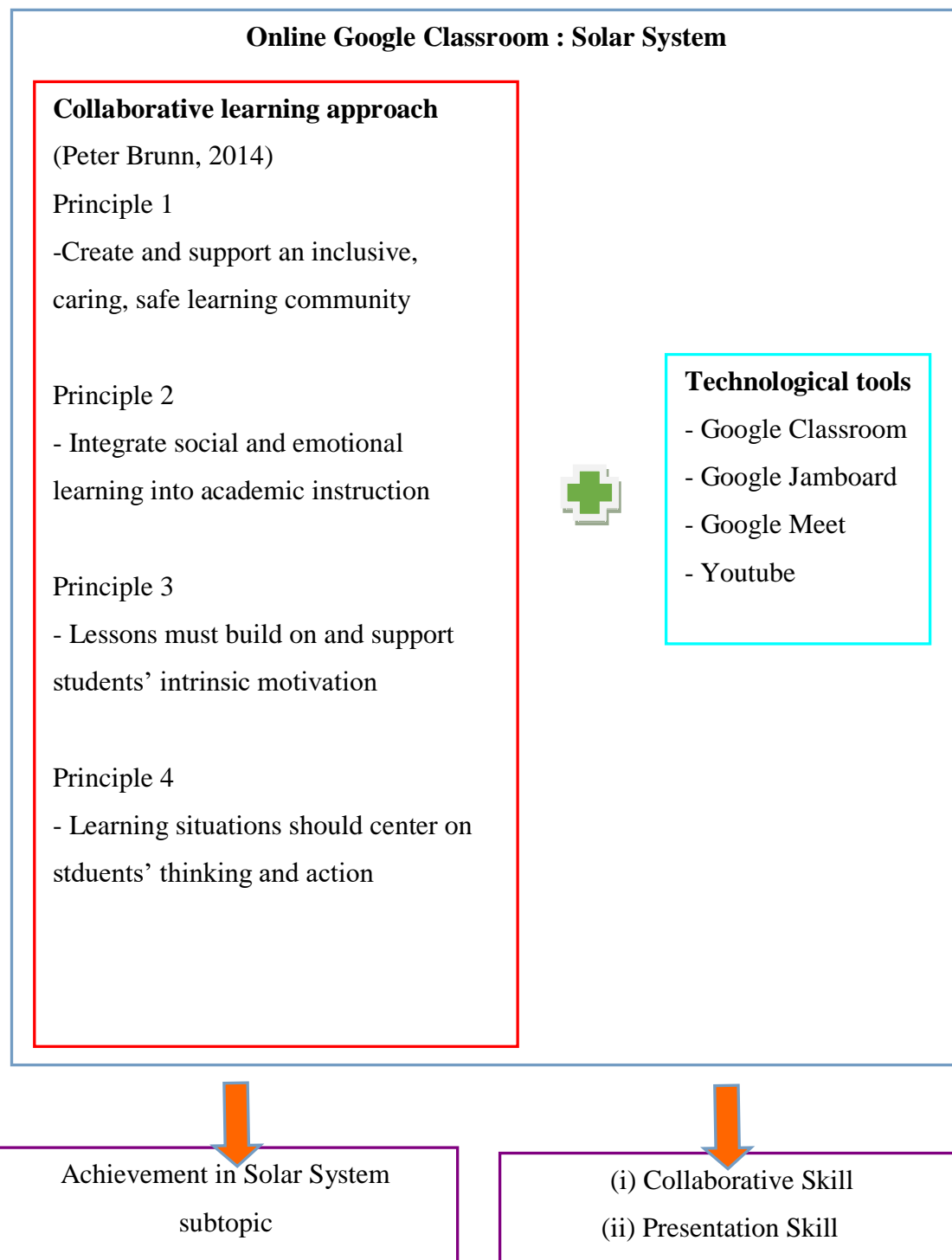


Figure 1: Conceptual Framework



## **1.6.1 Collaborative Online Classroom Principles (Peter Brunn, 2014)**

### **(i) Principle 1**

Building a good repo to start teaching and learning sessions even in online environment is a must. Students must feel connected, their presence acknowledged and positive relationship vibes with peers and teacher.

### **(ii) Principle 2**

Successful teaching does not depend on the teachers' knowledge delivery only. Teacher must help students to actively collaborate to build up ideas, strengthen the information. Integrating social and emotional into collaborative will develop social communication skills between students to achieve a meaningful learning.

### **(iii) Principle 3**

Students learned when they willing to join teacher class. Teacher must organized their class creatively even in online learning classroom to engage students to interact, communicate towards each other in virtual learning community classroom.

### **(iv) Principle 4**

Students learning centred is important in collaborative learning. Teachers must pass most of their role to students. In a collaborative approach, students must do most of the talking, thinking, and action in the classroom. Students will self-construct their knowledge among group by doing engaging and active activities such as talking, reading, presentation and so on.

## **1.6.2 Technological tools**

Instead of collaborative approach, this study also integrates the technological tools as follows:

### **(i) Google Classroom**

Every student was provided individual account for google classroom(GC). So it is easier to use GC tools to send information regarding the topic. Lesson material such as videos, short notes can be assign in GC with all the target group simultaneously.

### **(ii) Google Jamboard**

Online discussion within group will be done through google jamboard that was released by Google Workspace on 2017. It is an interactive whiteboard system. This tools will be use by students to collaborate, making interactive graphic information based on the topic.

### **(iii) Google Meet**

During pandemic, online interaction become a choice for teaching and learning classroom. In this research google meet are used as a platform as a video communication to share information, doing presentation, opinions and many more. It will be online classroom environment.

### **(iv) YouTube**

A videos platform containing various type of videos including education. In this research, Solar System videos will be embedded to the google classroom page from this technology tool.

## **1.7 Research Scope and Limitation**

This research is conducted among students from year 4 in a school in Johor Bahru. In this research, 30 students from a class from year 4 in learning Science subject using multiple of technological tools such as YouTube video, google jamboard, google meet and google classroom. From this research, students will learn about Solar System that students need to learn according to the Kurikulum Standard Sekolah Rendah (KSSR) syllabus. The collaborative learning approach by Peter Brunn (2014) is implemented in this research. The results findings of this research are based on students' achievement and collaborative and presentation skills. The findings from this research is used to the particular students and cannot be generalized to other students from other schools. In this research, students will be divided into few groups after watching a short video and explanation from teacher. Students will discuss among peers through google meet and using google jamboard to build interactive information. Then each group will present their findings using google jamboard to the whole class via google meet

## **1.8 Research Significant**

Conducting the research purposely to give useful information for teachers on how to integrate technological tool in online learning to promote collaborative learning even from distance. This research is expected will give benefits to:

### **1.8.1 Teachers**

This research gives idea and skills for teacher to use multiple technological tools in teaching online learning. This new knowledge can give new experience for teacher to create teaching and learning environment that promotes collaborative learning approach among the students in online learning. This research also can make teachers realize that online learning can develop collaborative and presentation skill among students even they are not seeing each other in real. Other than that, teachers will

learn that online learning can also promotes active participation among the students apart from listening to the teacher only.

### **1.8.2 Students**

By conducting this research, students will more eager and have high interest in learning through online learning. Students will learn actively through online learning using many interesting technological tools that were arranged in learning Solar System.

In this research, students will develop active collaborative among students to solve the given task. They will share their opinion, knowledge of information, finding reliable resources to accomplish the task given. Students will present their ideas in front of class through online platform using google meet and google jamboard. This will allow students to communicate actively with other students within their group (Kenkel, 2011). Activity of online presentation can develop students' self-esteem to communicate successfully in term of linguistic level, verbal skills and body language (Sugito and Sri Mulyani, 2017).

## **1.9 Operational Definition**

This research was involved several terms as follows:

### **1.9.1 Online Learning**

According to Steven Hoi, Doyen Sahoo, Jing Lu and Peilin Zhao (2018), online learning can be defined as learning through computer which information has been arranged, that learners can learn and gain new knowledge.

In this research online learning were implemented synchronously using collaborative strategy by Peter Brunn (2014) and with the integration of technological tools such as YouTube, Google Classroom, Google Jamboard and Google Meet occurs when teachers and students did not have the opportunity to create face to face interaction. Online learning can be done for a distance and information still can be deliver with integration of technological tools. All information regarding about the topic, progress and any other things related to the learning process will be post using Google classroom provided by the Ministry of Education in teaching and learning solar system subtopic. All students have their own e-mail and can access google classroom anytime.

### **1.9.2 Collaborative Learning**

Collaborative learning is when individual works in a group and each individual is responsible to assist and to contribute information regarding of the topic (Moore and Kearsley,2012).

In this research, collaborative learning is when students form group to discuss with their friends to solve the given task by teacher using multiple technological tools such as google classroom, google jamboard, YouTube, and google meet.

To develop collaborative and presentation skill among students, collaborative classroom principles by Peter Brunn (2014) were used as a guideline to create online learning environment that enhance students' communication skill.

### **1.9.3 Technological Tools**

Technological tools is modifying its use from common technology of media that usually work alone into digital revolution. Technological tools can be done

interactively and carried out in the network (Yu Zhao, Maria Cruz and Ana Maria,2019).

This research conducted using several technological tools that can be implemented online. Few technology tools were combine to create new online learning environment to develop collaborative learning and presentation skill of students. Examples of technology used in this research were Google Classroom, Google Meet, Google Jamboard and YouTube videos

#### **1.9.4 Collaborative Skill**

According to Muhammad Aziz et al (2019), collaborative skills is a process that occur among individual when working in a group. Collaborative skills can be seen through active contribution and participation among groups.

In this research, collaborative skills were determined based on active participation and verbal communication. These skills will be analysed through students' participation and presentation during their group task. These activity will determine students' level of collaborative skills and presentation skills.

In this research, collaborative skills were determined based on active participation and communication during the discussion and presentation of task given to the group. Each of students in group need to present their group work. The collaborative skill will be measured using collaborative skills checklist instrument. The checklist was built by adapting a checklist by Nick Weiss (2017) from the website <https://teacherweiss.weebly.com/blog/am-i-practicing-collaboration>.

#### **1.9.5 Presentation Skill**

Based on (David et al, 2015), presentation skill can be defined as a medium to deliver information and sharing knowledge. Presentation skill can be done through

speaking and writing with the help of technologies or not (Deanna et al, 2016). Students must master presentation skill nowadays based on the development of education (Lee at al, 2018). Presentation skill is a basic skill for individual in life as they need to deliver information, sharing ideas in their daily life (David et al, 2015).

In this research, the teaching and learning approach were based on online collaborative approach with activities such as group presentation activity to develop confidence and sharing ideas. This learning approach can give chance for students to develop their presentation skill in teaching and learning process. The checklist was built by adopting a checklist by Educators Technology (2014) from the website <https://www.educatorstechnology.com/2014/05/must-have-rubrics-for-integrating.html>. This website provide checklist based on presentation instrument that coincide with this research.

#### **1.10 Summary**

In this chapter, researcher have been discussed about problem background and also problem statement that brings to the construction of research objective and research question. Conceptual framework was built to make the purpose of this research conducted clearer. In conclusion, researcher have also explained issues from previous research to support the importance of conducting this research to find out the effect of collaborative learning and integration of technological tools toward students' collaborative skills. Second chapter will discuss literature review from other researcher related to the collaborative learning approach using integration technological tools in teaching and learning.

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