

The Effects of Using Online Collaborative Learning on English Oral Communication Ability of EFL Lower Secondary Students



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จุฬาลงกรณ์มหาวิทยาลัย
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เป็นภาษาอังกฤษของนักเรียนชั้นมัธยมศึกษาตอนต้นที่ใช้ภาษาอังกฤษเป็นภาษาต่างประเทศ



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การศึกษาค้นคว้าครั้งนี้มีวัตถุประสงค์เพื่อ 1) ศึกษาผลของการสอนแบบเรียนรู้ร่วมกันในลักษณะออนไลน์ (online collaborative learning) ต่อความสามารถในการสื่อสารด้วยวาจาเป็นภาษาอังกฤษของนักเรียนชั้นมัธยมศึกษาตอนต้นที่ใช้ภาษาอังกฤษเป็นภาษาต่างประเทศ และ 2) ศึกษาความคิดเห็นของนักเรียนต่อการสอนแบบเรียนรู้ร่วมกันในลักษณะออนไลน์ โดยกลุ่มตัวอย่างคือนักเรียนชั้นมัธยมศึกษาปีที่ 3 จำนวน 30 คน จากโรงเรียนเอกชนแห่งหนึ่ง ในจังหวัดพระนครศรีอยุธยา ใช้วิธีเลือกโดยการสุ่มตามสะดวก เครื่องมือที่ใช้ในการศึกษานี้คือ แบบทดสอบก่อนและหลังเรียน และคำถามสัมภาษณ์ความคิดเห็นต่อการสอนแบบเรียนรู้ร่วมกันในลักษณะออนไลน์ การวิเคราะห์ข้อมูลใช้ paired-sample t-test, ค่าเฉลี่ย, ส่วนเบี่ยงเบนมาตรฐานและการวิเคราะห์เนื้อหา ผลการศึกษาพบว่า ความสามารถในการสื่อสารด้วยวาจาเป็นภาษาอังกฤษของผู้เรียนเพิ่มขึ้นอย่างมีนัยสำคัญทางสถิติที่ระดับ .01 และผู้เรียนส่วนใหญ่มีความคิดเห็นในทางบวกต่อการเรียนรู้ร่วมกันในลักษณะออนไลน์



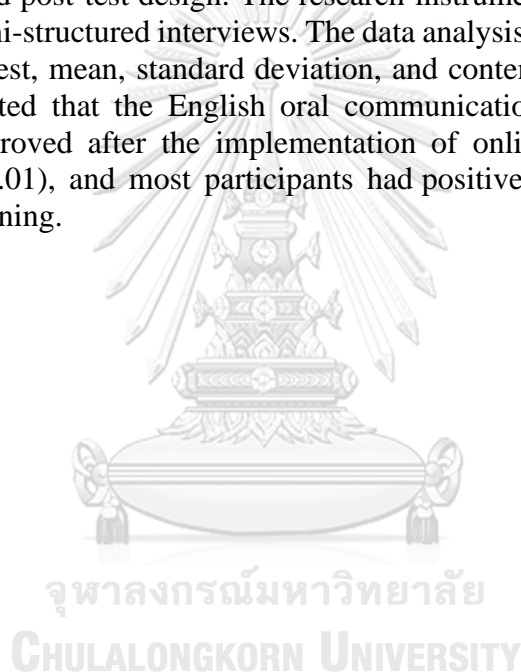
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This study aimed to 1) investigate the effects of online collaborative learning in enhancing the English oral communication ability of EFL lower secondary students, and 2) to explore the opinions of EFL lower secondary students towards the use of online collaborative learning. The participants of this study were thirty 9th grade students studying at a private school in Phra Nakhon Sri Ayutthaya province and were selected based on convenience sampling. The current study employed one group pre-test and post-test design. The research instruments utilized were pre-test, post-test, and semi-structured interviews. The data analysis employed the statistics of paired-sample t-test, mean, standard deviation, and content analysis. The results of this study indicated that the English oral communication ability of the students significantly improved after the implementation of online collaborative learning instruction ($p = .01$), and most participants had positive opinions towards online collaborative learning.



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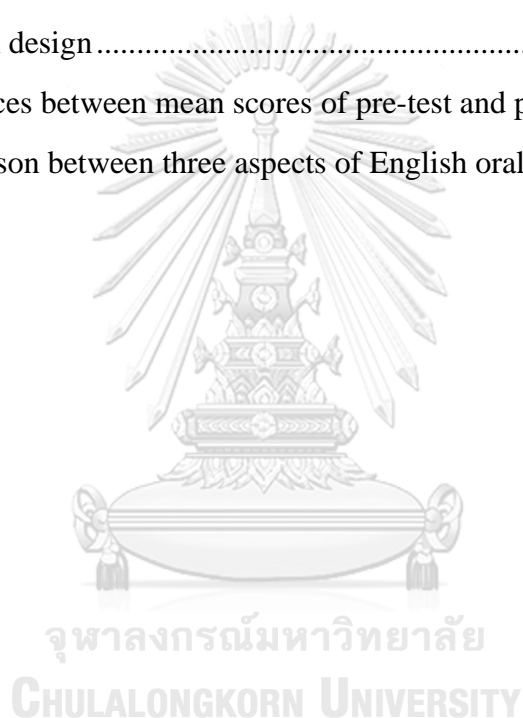
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Chapter 1

Introduction

Background of the study

English has now become the language of international communication (Kirkpatrick, 2007). It is also a crucial tool for communication in different situations and exploring knowledge in order to move forward with the change of society resulting from the digital age in the 21st century (Sakulprasertsri & Vibulphol, 2017). In Thailand, English has been used as a main tool to communicate with foreigners. Likewise, it is vital for students to be able to communicate with new technology to be effective workers of the country in the era of globalization. Consequently, it is unavoidable that learning English is important since it is an essential tool for communication.

Oral communication ability could be defined as a communicative process focusing on producing meaning which engages in building, receiving, and processing information (Burns & Joyce, 1997). Oral communication ability facilitates speakers to interact in the society while using the appropriate language (Chantamala, 2008; Hymes, 1972; Littlewood, 1981; Shumin, 1997). It seems to be a priority of various second or foreign language learning since oral communication is the most basic medium of human communication (Gold et al., 2011). Moreover, oral communication ability allows speakers to express all knowledge they have learned to others (Harmer, 2007). Thus, oral communication ability has been considered an important part of English language instruction in globalization.

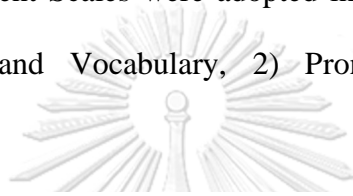
Researchers discovered various theories regarding the aspects of oral communication ability, in the same way, (Goh & Burns, 2012) proposed three key

components for increasing oral communication ability; *Knowledge of Language and Discourse, Core Speaking Skills, and Communication Strategies*.

According to Goh & Burns (2012), The first component is knowledge of language and discourse. It concerns the production of the sound patterns of language which means being able to pronounce the language intelligibility at segmental and suprasegmental levels, knowing grammar and vocabulary (spoken structures, grammatical features, lexis), and discourse and genre which is understanding how stretches of connected speech are organized. The second component is core speaking skills which are the capability to produce speech quickly to increase fluency and to manage speech flow. There are four broad categories of core speaking skills which are pronunciation (e.g., articulating the vowels and consonants clearly, word stress), speech function (e.g., requesting, expressing, complaining), interaction management (e.g., turn-taking, initiating, maintaining and ending conversations), and discourse organization (e.g., coherence and cohesion, using discourse markers). The last component is communication strategies. This component involves the development of cognitive strategies to compensate for the limitations in language knowledge (e.g., gestures, word coinage), metacognitive strategies (e.g., planning in advance what to say), and interaction strategies (e.g., asking for clarification or repetition, checking comprehension) in order to handle communication.

In Thailand, the Ministry of Education had implemented the Common European Framework of Reference of Languages (CEFR), an international standard for describing language ability, to reform both learning and teaching English across the country (Office of the Minister, 2016). The implementation of the CEFR was divided into six levels which are A1, A2, B1, B2, C1, and C2. Meanwhile, A2 is equal to the

ability of lower secondary students (The Ministry of Education, 2014). According to the level of students and the implementation of the CEFR in Thai education, the present study evaluated students' English oral communication ability in only two categories from the knowledge of language and discourse component which are grammatical knowledge and lexical knowledge, one category from core speaking skills which is pronunciation, and one communication strategy which is interaction. The Cambridge A2 Preliminary Assessment Scales were adopted in order to assess three individual criteria: 1) Grammar and Vocabulary, 2) Pronunciation, and 3) Interactive Communication.



Likewise, English has been used and taught as a foreign language in Thailand. Thai Basic Education Core Curriculum B.E. 2551 (A.D. 2008) requires students to learn four areas of English language learning which are 1) Language for Communication, 2) Language and Culture, 3) Language and Relationship with Other Learning Areas, and 4) Language and Relationship with Community and the World. In the Language for Communication area, students learn the use of English for listening, speaking, reading, and writing to exchange data and information, express feelings and opinions, interpret presented data, concepts and perspective on different matters and create interpersonal relationships appropriately (Office of the Basic Education Commission, 2008). Although Language for Communication is considered as one of the vital foreign language curriculums in Thailand's education, there are problems among Thai learner's oral communication. The results of an international speaking test such as TOEFL (Test of English as a Foreign Language) in the last few years have reflected the weakness of Thai students' English oral communication.

Regarding the test results from an international proficiency test, 2019 EF EPI (Education First English Proficiency Index) ranking, Thailand was ranked 74th out of 100 and was categorized as ‘Very Low Proficiency.’ Furthermore, according to the 2018 TOEFL test results, Thais’ overall TOEFL scores were ranked near the lowest in Southeast Asia. For the speaking part in the 2018 TOEFL test, Thai test takers obtained an average score of 19 while test takers from Vietnam, Myanmar, Indonesia, and Malaysia obtained 20, 20, 21, 22, respectively (Educational Testing Service, 2018; EF English Proficiency Index, 2019). The test results cast doubt on the teaching and learning procedure of English in Thai schools.

Apart from four language skills, the oral communication ability of Thai students has been found to be a problem (Choomthong, 2014; Karnnawakul, 2004; Kimsuvan, 2004). For instance, Thai students have oral communication problems when they have to speak English in class (Arunsirot, 2019; Olivares, 2020; Varatiporn & Nilnopakoon, 2015). According to the study by Olivares (2020), lower secondary students have limited English speaking ability in the classroom. Moreover, Varatiporn and Nilnopakoon (2015) stated that lower secondary students also have limited English speaking ability in their daily lives. Apart from lacking speaking ability, Arunsirot (2019) found that lower secondary students lack interest and motivation in learning English and lack opportunities to use English in their daily lives. They are seldom exposed to English speaking environment (Pratumchat & Yimwilai, 2021). These limited skills and lack of motivation may be the reasons they are unable to speak English efficiently. In addition, studies on Thai students’ communication in English language classrooms have presented their reticence to communicate in class because of their shyness and passivity (Suwannasri & Nomnian, 2016; Tuan & Mai, 2015). These

difficulties are considered as internal or affective challenges for English learners (Hosni, 2014; Punsiri, 2011). Particularly, anxiety can cause negative effects on language learners who are likely to disengage themselves from classroom interactions (Inphoo & Nomnian, 2019). Research regarding students' learning experience and their viewpoint toward the roles of online collaborative learning has illustrated that online collaborative English language learning activities have encouraged and motivated students' learning experiences (Badr, 2020; Chocholatá & Babičová, 2021; Jeong, 2019). According to Major (2015), scaffold activities, such as an exchanged peer tutoring activity, can support learners in online learning. Moreover, the advantage of the Internet enables learners to access without the limited resources of knowledge as well as to learn through social interaction with other students of the class.

Nowadays, various approaches have been used in English speaking instruction, such as Task-based Instruction, Content-based Instruction, and Communicative Language Teaching. Online Collaborative Learning (OCL) is another approach which could encourage learners to use the language to communicate in an online environment.

Online Collaborative Learning (OCL) is a combination of collaborative learning and online learning. To clarify, Collaborative Learning (CL) is grounded in Vygotsky's social constructivism. In it, Vygotsky (1962) postulated that social interaction is of great importance when it comes to learning. Among his theories is the zone of proximal development (ZPD), the zone where students can learn with help of the teacher or peers (scaffolding). Meanwhile, online learning refers to the process of learning which includes the access of content and resources, learning materials, activities, tasks, assessment, and making interaction with teachers and other learners through digital technologies in the online environment. Moreover, OCL provides a model of learning

in which students are encouraged and supported to work together to create knowledge by inventing, exploring ways to innovate, doing, and seeking the conceptual knowledge needed to solve problems (Harasim, 2012). She proposed three key phases of knowledge construction through discourse; idea generating, idea organizing, and intellectual convergence.

This approach represents a crucial change from teacher-centered instructional practice and has increasingly become an option of instructional approach in both face-to-face and online education settings because of several positive effects on students' outcomes (Badr, 2020; Chiu et al., 2010; Graham & Misanchuk, 2004; Jeong, 2019; Marimuthu et al., 2017; Ramos, 2020; Wang, 2020). Considering the problem of online learning in English course, according to Nartiningrum and Nugroho (2020), students were lack of effective direct interaction with teachers and peers, and it led to less understanding of material discussed in the online class. Moreover, Serhan (2020) found that students were lack of connection between themselves, and teacher and the communication was slowed down between student-teacher and student-student. On the other hand, OCL provided learners with sufficient opportunities to learn, participate, communicate, interact, and synthesize the information with learners and teachers in a small group (Thompson & Ku, 2006). By learning through three key phases of knowledge construction, learners had opportunities to work together and were supported by the use of online tools. As Nooijer et al. (2021) claimed that the online tools can be applied in designed learning tasks and activities which required learners to collaborate to reach their goal.

Likewise, learners will improve their academic achievement, involvement, responsibility, and intrinsic motivation when learning in an effective course using OCL

(Hänze & Berger, 2007). For example, Yeh (2014) emphasized that students would be able to guide their peers on their written work in a situation where they were in a similar proficiency level, and they performed better in collaborative groups. Nguyen (2013) also stated that using the online platform of Wikis can help students interact both socially and academically to support collaborative learning.

Recent studies of online collaborative learning generally focused more on writing and reading. To involve learners in writing, essays, written text in instant messaging, or discussion forums have been used as online collaborative learning activities. For speaking, activities are conducted either in the form of recorded messages, or live-in video conferences (Chang & Windeatt, 2016). According to the studies of Wang et al. (2020), lower secondary students formed an active learning atmosphere and had high efficiency in information exchanges through online collaborative learning. Moreover, Chu et al. (2017) claimed that social media tools such as Wikis for collaborative groups can promote online collaborative and interactive learning in secondary students. Kitjaroonchai et al. (2018) stated that Thai university students significantly improved their translation skills after learning through online collaborative learning (OCL) and had positive attitudes towards OCL. Moreover, Nam (2017) claimed that using digital storytelling strategies with middle school students in South Korea improved online communication and students' interaction in online collaborative learning environments. Furthermore, the studies of Bailey and Judd (2018) found that online collaborative learning using social media platforms significantly increased L2 writing accuracy. For example, using Facebook can help students' accuracy in the TOEIC writing test. Apart from writing, Liu et al. (2018) found that mobile-based collaborative learning can develop English listening

comprehension of non-English major undergraduate students and students also had positive attitudes towards language learning.

The OCL approach for language learning has shown positive effects and attitudes on learners. Whereas most studies on OCL focus on English writing and reading among undergraduate students, studies on the effects of online collaborative learning on oral communication ability among beginner or lower proficiency level students are still limited.

Therefore, this present study attempted to fill this gap by investigating the use of OCL in an English speaking course for EFL lower secondary students to determine its effects on the students' oral communication ability. Students participated in this class after school through an online environment. This study investigated the effects of online collaborative learning in enhancing the English oral communication ability of EFL lower secondary students and explored the opinions of EFL lower secondary students on the use of online collaborative learning.

Research questions

1. To what extent does online collaborative learning enhance English oral communication ability of EFL lower secondary students?
2. What are the opinions of EFL lower secondary students towards the use of online collaborative learning in enhancing English oral communication?

Research objectives

1. To investigate the effects of online collaborative learning in enhancing English oral communication ability of EFL lower secondary students.
2. To explore the opinions of EFL lower secondary students towards the use of online collaborative learning in enhancing English oral communication.

Statement of hypotheses

According to the studies of Wang et al. (2020), lower secondary students formed an active learning atmosphere and had high efficiency in information exchanges. Moreover, Chu et al. (2017) claimed that social media tools, Wikis, can promote online collaborative and interactive learning in secondary students. As a result, the hypotheses of this study were set as follows:

1. After conducting the online collaborative learning teaching lessons, students will achieve higher English oral communication ability which would be examined by the following statements:
 - 1.1 The students' mean post-test scores will be higher than the pre-test scores at the significant level of 0.01.
2. Students will have positive opinions towards online collaborative learning.

Definition of terms

1. **Online Collaborative Learning (OCL)** refers to three key phases of knowledge construction which are idea generating, idea organizing, and intellectual convergence (Harasim, 2012). In this study, the online collaborative learning was implemented in an English speaking course for lower secondary students. The three key phases of knowledge construction in online collaborative learning will allow students to achieve learning outcomes and English oral communication ability.
2. **English Oral Communication Ability** refers to an ability to talk in simple situations (e.g. very basic personal and family information, favorite things, shopping) with sufficient control of simple grammatical forms, use appropriate vocabulary to talk about everyday situations, have mostly intelligible and some

control of phonological features, and maintain simple exchanges. In this study, two categories from knowledge and discourse components (grammatical knowledge and lexical knowledge), one category from core speaking skills (pronunciation), and one communication strategy (interaction) were evaluated.

3. **Online Learning** refers to the process of learning which includes the access of content and resources, learning materials, activities, tasks, assessment, and interacting with teachers and other learners through digital technologies in the online environment.
4. **EFL Lower Secondary Students** refers to Thai 9th grade students who participated in the study. In this study, online collaborative learning was implemented in a 9th grade classroom.
5. **Opinion** refers to feeling or feedback that students shared in the interview after learning through online collaborative learning of English oral communication lessons.

Scope of the study

1. The population

The population of this study were lower secondary students in a private school in Phra Nakhon Si Ayutthaya province, Thailand.

2. The variables

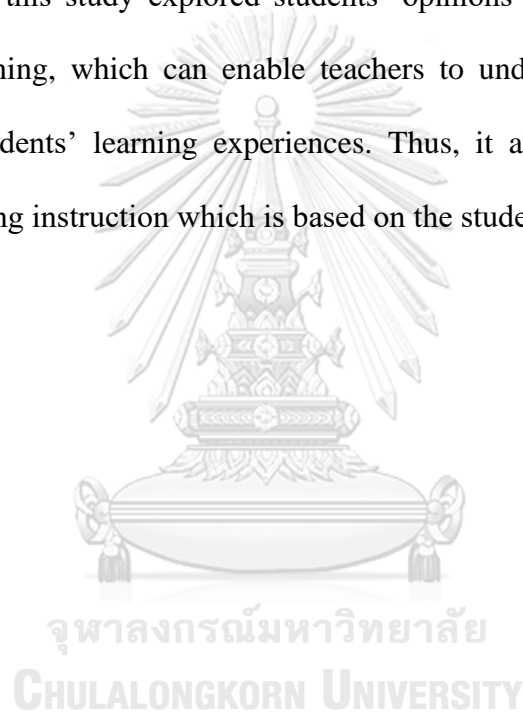
The independent variable is online collaborative learning. The dependent variable is English oral communication ability of thirty 9th grade students.

Significance of the study

The findings of the study contributed changes to traditional collaborative learning. The findings indicated that online collaborative learning significantly

enhanced English oral communication ability of EFL lower secondary students. Thus, it can benefit teachers of young adult learners because teachers can adapt the implementation of this form of instruction as a new option of English speaking instruction. Furthermore, the study will enable teachers to find practices of the online collaborative learning approach to enhance the oral communication ability of lower secondary students.

Moreover, this study explored students' opinions towards the use of online collaborative learning, which can enable teachers to understand the impact of the instruction on students' learning experiences. Thus, it allows teachers to conduct appropriate teaching instruction which is based on the students' needs.



Chapter 2

Literature Review

Definition of oral communication

Oral communication was defined variously by several researchers.

Oral communication is the operation of individual using verbal and non-verbal cues within and across various contexts, cultural, channels and media (Ammer et al., 2005).

Zuheer (2008) proposed that oral communication refers to the appropriately use of the language in social interactions.

Rahman (2010) proposed oral communication as speaking skills, which means a spoken interaction across more than one people involving the effective transmission of ideas, thoughts, facts, feelings, and values. Moreover, oral communication skills contain various elements such as gesture, style, language used, facial expression, understanding the audience, politeness, precision, and directness, etc. To cooperate these elements has effects on both failure and success of the interaction. Consequently, oral communication is not only the presentation of usual expression, but it also requests the abilities to understand what and how to speak in different contexts.

Oral communication refers to all types of interaction in spoken words. It is an important part of ideas and culture's sharing to others since English is used as a communicative method in international context (Rattanaphumma, 2006).

Windle and Warren (2013) also stated three components of communication: verbal, non-verbal, and para-verbal. Individuals need these components in order to send clear and concise messages and to receive and correctly understand the message.

To conclude, oral communication was a process of interaction between two or more people who were the speaker and the hearer by way of communication in various situations. It also included the ability to understand the non-verbal cues in oral communication.

Oral communication ability

Oral communication ability or speaking is the way to express ideas as well as presenting the meaning in the spoken language (Burns & Joyce, 1997).

Oral communication ability is the skills that integrated listening and speaking skills (Brown & Lee, 2015). It presents the way to effectively convey and express their ideas and thoughts between a speaker and listeners.

Ammer et al. (2005) stated that oral communication ability is the process of an individual using verbal and nonverbal expression to express meaning across various contexts, cultures, channels, and media.

In other words, Rahman (2010) pointed out that oral communication ability is an interaction between two or more persons requiring understanding what to say and how to say it. Speakers need oral communication ability for participating effectively in all types of oral communication.

Chantamala (2008); Hymes (1972); Littlewood (1981); Shumin (1997) stated that oral communication is an ability to use language appropriately in social interactions.

In addition, oral communication ability can be assumed as a speaking ability that involves grammar, fluency, interpersonal communication, pronunciation and sounds system; stress, intonation, and rhymes between speakers (Tarone, 1974).

Richards (2008) proposed that oral communication ability is the interaction between listening and speaking of performance uses especially strongly to conversation.

Zare and Othman (2015) proposed that oral communication is a vital skill and the main key to communicate for both ESL/EFL learners and teachers.

Liao (2009) stated that it is commonly agreed that oral communication ability is the one that students would be evaluated most in real-life situations.

Developing oral communication ability is challenging for EFL learners because the learners should master in pronunciation, grammar, vocabulary, fluency, and comprehension. Moreover, studying to speak L2 is believed to be more difficult than others English language skills for two main reasons. The first reason is speaking happens in real-time. The second reason is learners do not have enough time to edit and revise what they want to say compared to the situation where the person can edit if they are writing (Asrida, 2016).

To sum up, oral communication ability could allow individuals to appropriately use language in social interactions (Zuheer, 2008). In this study, oral communication ability is an ability to talk in simple situations (e.g. very basic personal and family information, favorite things, shopping) with sufficient control of simple grammatical forms, use appropriate vocabulary to talk about everyday situations, have mostly intelligible and some control of phonological features, and maintain simple exchanges.

Components of oral communication

Oral communication ability is an interactive and complex process that consists of various components that can improve speakers' oral communication ability.

According to Linder (1977), there are five components of oral communication ability which are fluency, comprehensibility, amount of communication, quality of communication and effort of communication. Fluency refers to the continuation of speeches that people have in speaking. Comprehensibility refers to the clarity of the speeches. The amount of communication is the number of speeches in the communication. Quality of communication refers to the accuracy of speeches and effort of communication refers to the speakers' effort in making speeches comprehensible using verbal or non-verbal language.

Zuheer (2008) presented eight components of oral communication ability which are speech sounds and sounds patterns, stress and intonation patterns and rhymes, vocabulary, grammar, appropriateness, organization, values and judgments, and fluency.

In other words, there are three key components for increasing ability which are *Knowledge of Language and Discourse*, *Core Speaking Skills*, and *Communication Strategies* (Goh & Burns, 2012).

According to Goh & Burns (2012), the first component is knowledge of language and discourse. It concerns the production of the sound patterns of language which means being able to pronounce the language intelligibility at segmental and suprasegmental levels, knowing grammar and vocabulary (spoken structures, grammatical features, lexis), and discourse and genre which is understanding how stretches of connected speech are organized.

The second component is core speaking skills which are the capability to produce speech quickly to increase fluency and to manage speech flow. There are four broad categories of core speaking skills which are pronunciation (e.g. articulating the

vowels and consonants clearly, word stress), speech function (e.g. request, express, complain), interaction management (e.g. turn-taking, initiate, maintain and end conversations), discourse organization (e.g. coherence and cohesion, using discourse markers).

The third component is communication strategies. It is the development of cognitive strategies to compensate the limitations in language knowledge (e.g. gestures, word coinage), metacognitive strategies (e.g. planning in advance to say), and interaction strategies (e.g. asking for clarification or repetition, checking comprehension) in order to handle the communication breakdowns.

The components are basics for improving oral communication ability especially for young learners who learn English as a foreign language. Knowing the sound patterns of language, grammar and vocabulary, and discourse and genre will assist learners convey the message appropriately. Moreover, using core speaking skills will improve speech flows and fluency. Additionally, using communication strategies will decrease communication breakdowns.

According to the Office of the Minister (2016), the Ministry of Education had implemented the CEFR to reform both learning and teaching English across the country. The implementation of the CEFR was divided into six levels which are A1, A2, B1, B2, C1, C2, and implemented to the system of Thai education. Meanwhile, A2 is equal to the ability of lower secondary students (The Ministry of Education, 2014). According to the level of students and the implementation of the CEFR in Thai education, this study evaluated only two categories from the knowledge of language and discourse component (grammatical knowledge and lexical knowledge), one category from core speaking skills (pronunciation), and one communication strategy

(interaction). The components were grouped under an adopted Cambridge A2 Preliminary Assessment Scales to assess three criteria: 1) Grammar and Vocabulary, 2) Pronunciation, and 3) Interactive Communication.

Oral Communication Instruction

Functions of Oral communication

Richards (2008) proposed three categories of functions of oral communication which are talk as interaction, talk as transaction, and talk as performance. These functions serve different purposes as discussed below.

Talk as interaction refers to a speaking interaction with social function, such as conversation, and the speakers are focused more than the message. It also reflects role relationships and speaker's identity. This type of talk is jointly constructed and can be formal or informal. This talk includes greeting, making small talks, and telling personal stories. Talk as interaction occurs in informal contexts such as at home or playground.

Talk as transaction primarily focuses on information and message, but not the participants. This type of talk aims to give and receive information or getting goods and services. Participants produce communication strategies to make themselves understood. In addition, there may be frequent questions, repetitions, comprehension checks, negotiation, and digression. The linguistic accuracy is not always important. Example of talk as transaction are discussing, describing, or explaining information in class, responding to questions posed by teachers and making a phone call for a restaurant reservation.

Talk as performance focuses on both message and audience such as public speaking, debate, and class presentations. This type of talk has predictable organization

and sequencing. Moreover, the language use in this talk is more like written language and it is often monologic.

In this study, the functions of language use in online collaborative lesson were talk as transaction for the purpose of learning English speaking as an additional course in order to increase English oral communication ability.

Assessment of oral communication ability

Bailey (2005) proposed the oral test in order to assess oral communication ability. The test was divided into three kinds as follows:

1. Direct Test

Students would directly speak the target language and interact with the test administrator or classmates. The test types could be a conversation, a spontaneous talk, an interview, etc.

2. Indirect Test

Students could be assigned to do the paper test such as gap filling, a conversational cloze test, or multiple choices test.

3. Semi Direct Test

Students would listen the directions from a recorded voice and respond by recording their voice to a recorder.

However, Bailey (2005) stated that assessing oral communication ability should be as direct as possible. According to Hughes (2003), direct testing requires the test taker to actually perform the skill. Thus, speaking tests should require students to speak.

To assess oral communication ability, the test and rubrics are important (Luoma, 2004). Moreover, a good speaking test should have a carefully specified task and a clear

scoring rubric (Chuang, 2009). Assessment can be done at the beginning of the lesson for pre-test or at the end of the lesson for post-test.

Moreover, The Cambridge English Qualifications provided exams focusing on a level of the Common European Framework of Reference (CEFR) in order to help learners to improve their speaking, reading, writing, and listening. It also provided an assessment scale which is separated into four categories of the test. The assessment scales are based on a level of the CEFR (Cambridge Assessment English, 2020).

In this study, the English oral communication ability of lower secondary students was evaluated in the pre-test and post-test stage of the data collection procedure. Specifically, the direct test method was selected to use with the pre-test and post-test. This study will adapt the Cambridge A2 Preliminary speaking exam as the research instruments in the pre-test and post-test.

Criteria of oral communication ability assessment

Oral communication ability can be assessed on various criteria depends on the objectives of the tasks.

Burns (2012) proposed criteria for assessing oral communication ability which includes language, production, participation, expression, and coherence. Language refers to the usage of grammar, vocabulary, structure, and organization. Production refers to fluency and sounds system. Participation refers to turn taking and maintenance of the communication. Expression refers to clarity and quality of thoughts. Lastly, coherence refers to the connection of ideas and reasoning.

The Common European Framework of Reference (CEFR) suggested an oral assessment criteria grid to assess English oral communication ability (Council of Europe, 2011). The criteria under the CEFR for oral communication ability includes

range, accuracy, fluency, interaction, and coherence (Milanovic, 2009). Range refers to an ability to communicate information using various linguistic forms. Accuracy refers to an ability to use appropriate forms to convey meaning. Fluency refers to an ability to carry on the communication. Interaction refers to an ability to interact using verbal and non-verbal cues and coherence refers to an ability to create clear and organized speeches.

The Cambridge English Qualifications provided exams focus on a level of the Common European Framework of Reference (CEFR) for helping learners to improve their speaking, reading, writing, and listening. It also provided an assessment scale which is separated in four categories of the test. The assessment scales are based on a level of the CEFR (Cambridge Assessment English, 2020).

In Thailand, the Ministry of Education had implemented the Common European Framework of Reference of Languages (CEFR), an international standard for describing language ability, to reform both learning and teaching English across the country (Office of the Minister, 2016). The implementation of the CEFR was divided into six levels which are A1, A2, B1, B2, C1, and C2. Meanwhile, A2 is equal to the ability of lower secondary students (The Ministry of Education, 2014).

According to the level of students and the implementation of the CEFR in Thai education, this study adopted the Cambridge A2 Preliminary Assessment Scales to evaluate students' English oral communication ability in pre-test and post-test procedure. The criteria assess three individual criteria: 1) Grammar and Vocabulary, 2) Pronunciation, and 3) Interactive Communication. This assessment scales were divided into six bands from 0 to 5, with 0 being the lowest and 5 the highest. A2 Preliminary is at Level A2 of the Common European Framework of Reference (CEFR). The A2 level

in this study refers to the ability to talk in simple situations (e.g. very basic personal and family information, favorite things, shopping) with sufficient control of simple grammatical forms, use appropriate vocabulary to talk about everyday situations, have mostly intelligible and some control of phonological features, and maintain simple exchanges.

Collaborative learning

Collaborative learning is grounded in Vygotsky's social constructivism. In it, Vygotsky (1962) postulated that social interaction is of great importance when it comes to learning. Among his theories is the zone of proximal development (ZPD), the zone where students can learn with the help from the teacher or peers (Scaffolding). With this having said, CL has many benefits, which can be grouped into social, psychological, academic, and assessment (Laal & Ghodsi, 2012), as described below:

- Social benefits – CL helps learners to build their social support systems, develops understanding of diversity among staff and students, provides a positive environment for demonstrating and rehearsing collaboration, and builds communities of learning.
- Psychological benefits – CL through its student-oriented instructions improves self-esteem of students, cuts down anxiety, and builds “positive attitude toward teachers”.
- Academic benefits – CL encourages the use of critical thinking skills, engages students in an active learning process, better the results of classroom, demonstrates problem resolution techniques appropriate for

students, personalizes large lectures, and motivates students in certain curriculum.

- Alternate students and teacher assessment and techniques – CL makes use of a myriad of assessment.

Roselli (2016) stated that in the “collaborationist” perspective, three important theories merge: socio-cognitive conflict theory, intersubjectivity theory, and the distributed cognition theory.

Moreover, the collaborative learning approach is part of a “social psychology of knowledge” (Mugny, 2013). Knowledge is defined as a process of negotiation or construction of meanings; the knowledge was applied in the whole process of teaching. The main concept of this approach is the recognition of the value of peer cognitive interaction in the whole context of teaching. In addition, it is not about the application of group techniques, but it is the promotion of exchange and participate of each member in the group in order to build a shared cognition.

Connectivism

Connectivism was the bridge of the relationship between knowledge environments which was grounded in social constructivism’s Vygotsky and it significantly influenced connectivism (Moll, 1992).

Siemens (2004) defined connectivism as "a learning theory for the digital age". Connectivism was positioned as an alternative learning theory which consistence with the changing environment and the natural and logical response to technological shifts affecting learning. It produces an exploration of technological trends, learning evolution, changes in organizations, and the nature and source of knowledge. In addition, connectivism defines learning as a networked group attempt where learning

is a process of connecting people and information sources. As Duke et al. (2013) stated, connectivism is social learning which is networked.

Boitshwarelo (2011) proposed the features of connectivism as follows.

1. The central idea in connectivism is the connection of learners to a learning community and benefitting from investigating information. The learning community is a group of people learning together through repeated conversation of their similar interests.
2. The community is viewed as a part of a wider network of nodes. The networks which are diverse but connected, autonomous supporting, diverse, and creative knowledge development.
3. Knowledge is not limited in individuals but also distributed across an information network or multiple individuals.
4. Information is continually changing and need to constantly evaluate the validity and accuracy of knowledge to achieve the new information
5. There is an inter-disciplinary connection in the knowledge creation processes in the Internet environment with its distributed nature of information.

Thus, the online environment is an important vehicle in the growth and facilitation of connectivism.

To sum up, connectivism learning is a networked group where learning is a process of connecting people and information sources in the online environment.

Online learning

Researchers proposed various terms for online learning which include e-learning, Internet learning, virtual-learning, computer-assisted learning, web-based

learning, and distance learning. All these terms imply that learner is at distance from instructor. The learner uses various form of technology to access learning materials, interact with the instructor and other learners, and receive some form of support (Anderson, 2008).

Many Universities believe that online learning and digital technologies will enhance learning and students experience (Thomas et al., 2017). This increase focus on online learning and it has led to the composition of digital technologies and platforms that have changed the way language learners and teachers interact (Fischer et al., 2013). Moreover, online learning with technologies provides various options that can be both exciting and challenging to language teachers and learners (Stockwell, 2018).

However, online learning does not only focus on the presentation and the delivery of materials using the Web but also involves the focusing of learners and the learning process.

Anderson (2008) proposed that online learning is the use of the Internet to access learning materials in order to make an interaction with the content, instructor, and other learners. Moreover, it is the process to receive support during the learning process to acquire knowledge, build personal meaning, and grow from the learning experience.

In this study, online learning refers to the process of learning which includes the access of content and resources, learning materials, activities, tasks, assessment, and making interaction with teachers and other learners through digital technologies in the online environment.

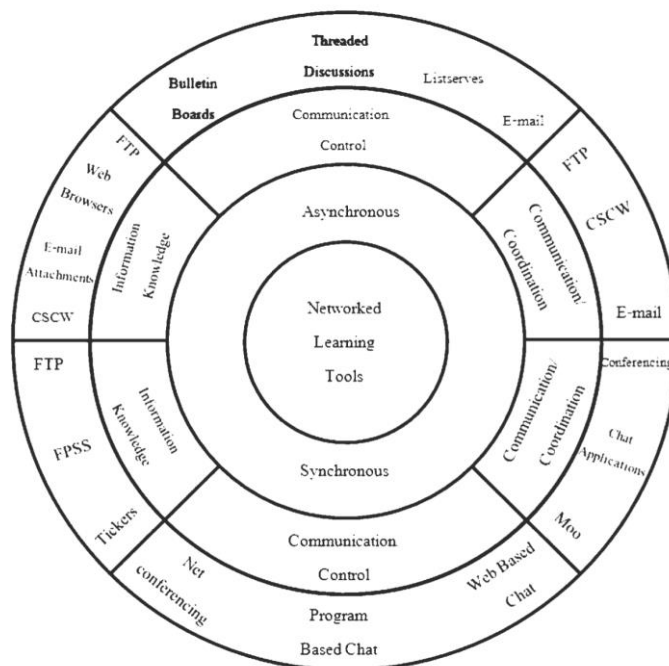
Computer Mediated Communication (CMC)

According to Son (2018), Computer-Mediated Communication (CMC) is interpersonal communication that occurs synchronously and asynchronously through online computers or other digital devices. Asynchronous tools do not require a real-time response. Thus, teachers and students have the flexibility to join the class. It means they can engage anytime and places (Hänze & Berger, 2007; Kitade, 2008).

As online language teaching becomes widespread in online environments, language teachers need to acquire new knowledge and skills that are different from knowledge and skills used in the traditional classrooms in order to appropriately develop online classrooms (Comas-Quinn, 2011; Ernest et al., 2013; Guichon, 2009; Lamy & Hampel, 2007; Murray, 2013 cited in Son, 2018).

Ganesan et al. (2002) proposed that CMC tools were consisted of synchronous and asynchronous tools as follows.

Figure 1 Networked learning tools and collaboration for online learning (Ganesan et al., 2002:112)



Egbert and Hanson-Smith (1999) proposed eight parts of CMC conditions for optimal language learning environments and presented that these conditions can enhance and facilitate ESL learning.

1. Learners have opportunities to interact and negotiate meaning.
2. Learners interact in the target language with an authentic audience.
3. Learners are involved in authentic tasks.
4. Learners are exposed to and encouraged to produce varied and creative language.
5. Learners have enough time and feedback.
6. Learners are guided to attend mindfully to the learning process.
7. Learners work in an environment with an ideal stress/anxiety level.
8. Learner autonomy is supported.

Advantages of CMC in language learning

Recent research on CALL has presented several of benefits of CMC for many reasons. Pasfield (2011) mentioned the benefits of online environment for providing more chances for language production for L2 learners. In addition, CMC provided language learners opportunities for language practice with Native speakers (Arnold, et al., 2005; Itakura & Nakajima, 2001 cited in (Huh, 2012).

Moreover, one of the most important aspects of CMC was a reduction in anxiety compared to face-to-face speech (Chen, 2005; Fotos & Brown, 2004). CMC provided learners with a fewer threatening means of communication. Learners also gained autonomy supported by independent learning environment which can lead to student-centered language learning (Huh, 2011; Pasfield, 2011).

According to Loveless (2002) and Shneiderman (2002), CMC promoted creativity by speeding students' language learning process and supporting their creative thinking development. In addition, CMC helped expand creative thinking while students interacted with authentic interlocutors. According to Huh (2007), teachers can ask meaningful questions to help students improve their imagination and their skills in flexible idea generation, persuasive expression and accurate explanation during discussions through CMC. Moreover, CMC provided private space for students and teachers to work together (Huh, 2012).

In this study, CMC tools played an important role in supporting the online collaborative learning principles in enhancing the English oral communication since it provided students with more practice time to acquire their oral communication ability and provided the teacher with opportunities to observe students' speaking progress along with their presentation or online collaborative discussion.

Online collaborative learning

Online Collaborative Learning (OCL) is a combination of collaborative learning and online learning. To clarify, Collaborative Learning (CL) is grounded in Vygotsky's social constructivism. In it, Vygotsky (1962) postulated that social interaction is of great importance when it comes to learning. Among his theories is the zone of proximal development (ZPD), the zone where students can learn with help of the teacher or peers (scaffolding). Moreover, through the zone of proximal development, students show great progress in developing their skills when they socially interact with their classmates or through peer collaboration compared to developing these skills alone (Thompson & Ku, 2006). Meanwhile, online learning refers to the process of learning which includes the access of content and resources, learning materials, activities, tasks,

assessment, and making interaction with teachers and other learners through digital technologies in the online environment.

Collaborative learning is the situation when two or more people working together to achieve a common goal. The collaborative learning appears when students work in a small group and the teacher encourage them to work together to enhance their learning (Johnson & Johnson, 2004). In addition, collaborative learning can increase students' engagement, enhance critical thinking, promote problem solving, and encourage learning (Raman & Ryan, 2004).

As stated in Laal & Ghodsi (2012), collaborative learning benefited in four major categories; social, psychological, academic and assessment, however, face to face collaborative learning is concerned a challenging principle that the expected outcomes may not be achieved in all situations (Kirschner et al., 2009).

Thus, various researchers suggested some modifications and treatments to solve these challenges by using technology (Thompson & Ku, 2006; Harasim, 2012). In this digital era, technology plays a vital role on the learning process. Badr (2020), confirmed that the principles of online collaborative learning provided students with a new experience that was difficult to achieve in their face-to-face learning experience. In addition, Jeong (2019) revealed that the participants showed satisfaction in learning English through online collaborative learning. According to Klemm (1988), the use of technology tools significantly supported online collaborative learning and make it more effective than face-to-face collaborative learning for several reasons; provide flexible schedules, support students' responsible in learning, promote critical thinking, have more organized learning process.

Thompson & Ku (2006) proposed four criteria of online collaborative learning which was participation, interdependence, synthesis of information, and independence. Firstly, participation refers to the collaboration between learners. Secondly, interdependence refers to the interaction between group members to interchange information and ideas with one another. Thirdly, synthesis of information refers to the organization of information to finalize the collaborative tasks within the group. Finally, independence refers to the independent between online collaborative groups and the teacher which means that the group should ask their groupmates questions rather than immediately ask the teachers.

According to Harasim (2012), online collaborative learning (OCL) is the integration of both constructivist approaches to learning and the development of the Internet. It has led to the development of a particular form of constructivist teaching, originally called computer mediated communication (CMC). Moreover, OCL provides a model of learning in which students are encouraged and supported to work together to create knowledge by inventing, exploring ways to innovate, doing, and seeking the conceptual knowledge needed to solve problems.

Harasim (2012) proposed three main elements of OCL which are 1.) online collaborative learning pedagogy, 2.) online technology tools, and 3.) online collaborative learning environments as follows.

1.) **Online collaborative learning pedagogy**

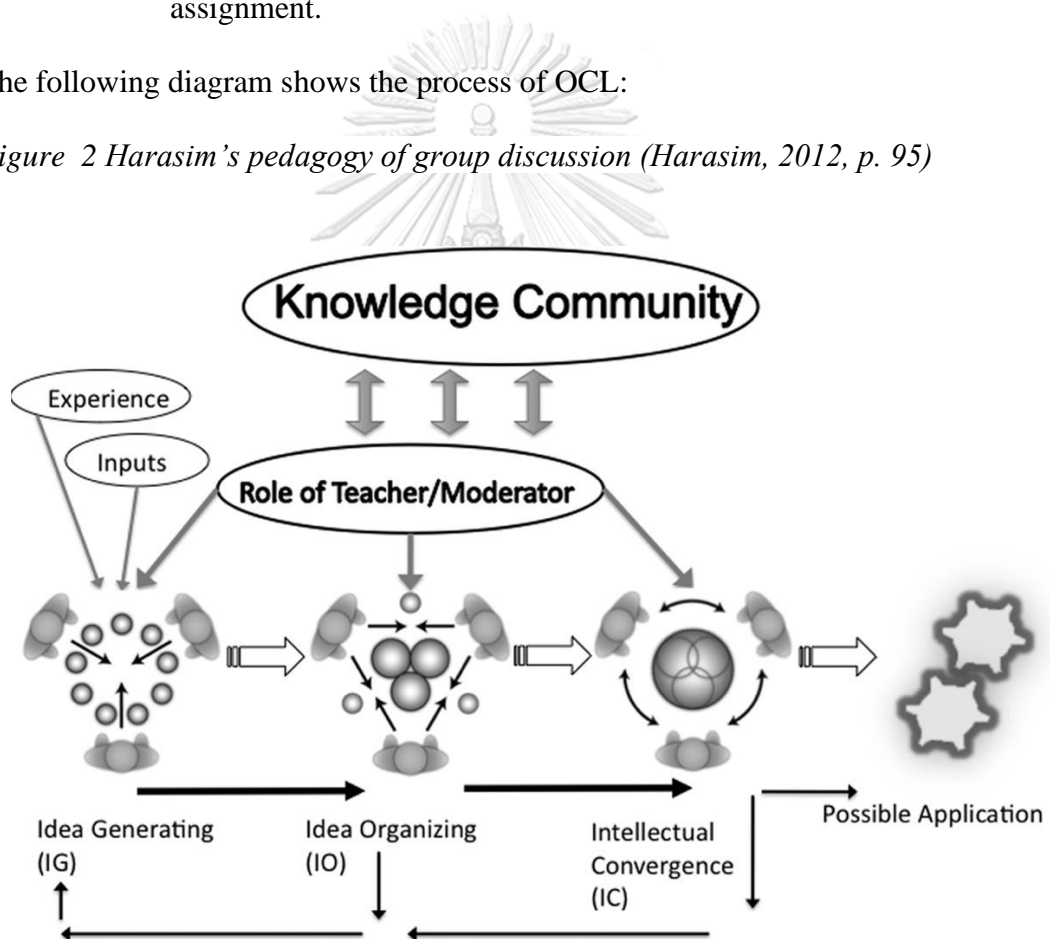
Harasim (2012) proposed three key phases of knowledge construction through discourse as follows:

- **idea generating:** learners have to brainstorm in order to collect the divergent thinking within a group;

- **idea organizing:** learners will compare, analyze and categorize the different ideas previously generated, again through discussion and argument;
- **intellectual convergence:** to reach a level of intellectual synthesis, understanding and consensus (including agree to disagree), usually through the joint construction of pieces of work, such as essay or assignment.

The following diagram shows the process of OCL:

Figure 2 Harasim's pedagogy of group discussion (Harasim, 2012, p. 95)



2.) Online technology tools

Online learning tools that support online collaborative learning are web tools that can facilitate or enable tasks in an online environment to be delivered (Harasim, 2012). The online learning tools can be web tools or other CMC tools that are mainly

designed for education. These tools support the teacher to cooperate the online collaborative learning pedagogy.

3.) **Online learning environment**

Online learning environment refers to web-based software that is designed to support the learning activities (Harasim, 2012). The online learning environment are not just channels for exchanging information, but learners are able to engage in conversation and negotiate meaning through these online channels. For example, video conferencing systems such as Zoom and Microsoft teams is one of the common online learning environments. These environments are delivered through the Internet and there were no place and time limitations (Harasim, 2012).

Meanwhile, (Tu & Du, 2004) proposed four main issues that should be considered in implementing online collaborative learning. The four main issues are as followed.

1.) Empowering learners

Students should be enabled to be responsible for their learning process as in online collaborative learning. The teacher's role is a facilitator who gives advice and guides learners through different learning tasks to meet the different learning styles.

2.) Continuing support

The teacher should provide intellectual, technical, social, mental, and emotional support throughout the learning process in order to support the online collaborative learning.

3.) Being patient

The teacher should be patient and admit that social interaction in online collaborative learning environment is time-consuming to construct social ties to help students achieve their goals.

4.) Building communities

The teacher should create a sense of community in online collaborative learning environment to encourage students to feel relaxed to share their opinions, thoughts, and perspectives.

Since online collaborative learning requires the teacher to be a facilitator for students, it can be said that online collaborative learning represents a vital shift for the teacher's role in the learning process from the typical teacher-centered approach to learner-centered approach. The role of the teacher is to guide and provide support for students (Rodríguez et al., 2017).

Several researchers proposed the process of online collaborative learning as follows.

1.) Orienting students

Before the implementing of online collaborative learning, the teacher should prepare orientation about the process of online collaborative learning because it requires new roles from the students' side. Being familiar with the process of collaboration can promote learning outcomes (Nussbaum et al., 2009).

2.) Forming the collaborative learning group

Forming the collaborative learning group depends on the purpose, activity, and the time duration that students are supposed to collaborate. There are three main types of collaborative learning groups which are informal, formal, and base groups. The informal group is randomly formed and suitable for a short period

of time. The formal group is formed when learners need to work together for several sessions or weeks to complete complicated tasks. The base group is formed over a long-term period such as an entire semester to accomplish variety of tasks. The effective collaborative learning group size usually ranges from two to six members (Barkley et al., 2014).

3.) Group agreement

Having group agreements or using team contracts was as an effective technique which can impact satisfaction among students when implementing online collaborative learning (Doran, 2001).

4.) Constructing the collaborative learning task

This process involves the construction of collaborative learning tasks, and the students should collaborate properly (Barkley et al., 2005).

5.) Assessment and evaluation of collaborative learning

The assessment should be conducted to assess collaborative groups while respect the individual contribution (Diaz et al., 2010) Both formative and summative assessments are highly recommended.

In this study, three main elements of OCL (Harasim, 2012) which are 1.) online collaborative learning pedagogy, 2.) online technology tools, and 3.) online collaborative learning environments were implemented in an English speaking course for lower secondary students and it helped students to achieve learning outcomes and English oral communication ability.

1.) Online collaborative learning pedagogy

- **idea generating:** in their breakout room, students shared and brainstormed their ideas and opinions about what they have learned in

the lesson, talked to their groupmates and made sure that everyone in the group understand the task;

- **idea organizing:** students compared, analyzed and categorized the different ideas previously generated through discussion and argument;
- **intellectual convergence:** students helped one another to complete the task with the support of technology tools

2.) Online technology tools

This study used that advantage of CMC tools to create online collaborative tasks. For example, Quizlet.com, a free website providing learning tools for students, was chosen to help students learn new vocabulary through flashcards, live games, or practice tests. Moreover, Zepeto application, a social media application that lets users create their own 3D character, supported the activity to be more interesting. By using this tool, students created their own avatar, dressed in their own styles, and took a photo or video with their friends' avatar. It was attractive for online collaborative learning activities about clothes, gestures, or feelings.

3.) Online learning environments

In this study, a videoconferencing application, Zoom meeting, was selected as the online learning environment. In this application, the breakout room function helped the researcher to break the meeting room into separate rooms that contained two or more students. It benefits online collaborative learning group activities. Students can have discussions via microphone and video camera or chatting in a chatbox. In addition, they can share their computer screen with their groupmates. The researcher can also observe and help students

whenever they request help. Another online learning environment that most Thai students were familiar with is Google Classroom. This study used Google Classroom to discuss and make an announcement with the students

In order to implement an effective online collaborative learning, this study concerned the process of online collaborative learning as follows.

1.) Orienting students

The 30-minute orientation on the process of online collaborative learning and how to use CMC tools has been held on the first day of the course.

2.) Forming the collaborative learning group

As the time duration was 90 minutes per period, the informal groups were randomly formed with 4-6 students for each period.

3.) Group agreement

The groups' responsibilities and individual's responsibilities were explained to the students before the implementing of online collaborative learning.

4.) Constructing the collaborative learning task

The online collaborative tasks and activities were constructed based on the principles of online collaborative learning with the use of various CMC tools.

The students were driven to participate and practice their English oral communication ability through online collaborative learning tasks involving practicing the required discussion and attentively responding to the speaking tasks. For example, in the intellectual convergence stage, students had 15 minutes to work with their groupmates to discuss their clothes of their 3D characters in the Zepeto application and prepare for presenting in the describing clothes activity (as seen in Appendix A).

5.) Assessment and evaluation of collaborative learning

The researcher provided opportunities for each group to give a group's feedback in Google classroom after the end of the activity and the researcher provided feedback of all groups and individuals in the Google Classroom.

According to Tu (2004), this study generated the role of students and teachers in the implementing of online collaborative learning.

Role of students

- Students were responsible for their learning process as in online collaborative learning.
- Students were agreed to respect others' opinion in a group discussion.

Role of teachers

- The teacher was a facilitator who provided advice and guided learners through different learning tasks to meet the different learning styles.
- The teacher provided intellectual, technical, social, mental, and emotional support throughout the learning process in order to support the online collaborative learning.
- The teacher was patient and willing to help students to achieve their goals.
- The teacher created a sense of community in online collaborative learning environment, such as a group discussion, to encourage students to feel relaxed to share their opinions, thoughts, and perspectives.

Recent studies

Recent studies of online collaborative learning either generally focused more on writing and reading among undergraduate students, studies on the effects of online collaborative learning on English oral communication ability among beginner or lower

proficiency level students are still limited. However, there are various studies that showed the effects of online collaborative learning on English language skills, learning performance, and learning experiences. In addition, several studies found the benefit of technology tools in supporting online collaborative learning.

Firstly, several studies found the positive effects of online collaborative learning on English language skills, learning performance, and learning experiences.

Nam (2017) examined the effects of digital story telling on student achievement, social presence, and attitude in online collaborative learning environments of middle school students in South Korea. The study claimed that using digital storytelling strategies with middle school students in South Korea improved online communication and students' interactions in online collaborative learning environments.

Bailey & Judd (2018) examined the effects of online collaborative writing and TOEIC writing test-preparation on second language writing performance of South Korean university students. They found that online collaborative learning significantly increased L2 writing accuracy and indicating social media platforms such as Facebook can help students' accuracy criteria of the TOEIC writing test.

Liu, Chen, & Hwang (2018) examined the effects of mobile-based collaborative learning on English listening comprehension of non-English major university students in Taiwan. Their study revealed that mobile-based collaborative learning can develop English listening comprehension of the students, and students had positive attitudes towards language learning.

Wang et al. (2020) investigated the learning performance and behavioral patterns of online collaborative learning of lower secondary students from a secondary school in China. Their study revealed that students formed an active learning

atmosphere and had high efficiency in information exchanges through online collaborative learning.

Badr (2020) examined the effects of online collaborative learning on developing speaking skills and social presence of English major's university students in Egypt. The study revealed that online collaborative learning statistically affected in developing EFL speaking skills and social presence and the principles of online collaborative learning provided students with a new experience that was difficult to achieve in their face-to-face learning experience.

In Thailand, Kitjaroonchai, Kitjaroonchai, & Phutikettrkit (2018) investigated the effects of online collaborative learning on English translation skills of Thai EFL university students. They claimed that Thai university students significantly improved their translation skills after learning through online collaborative learning (OCL) and had positive attitudes towards OCL.

Secondly, several studies found the benefit of technology tools in supporting online collaborative learning.

Chu et al. (2017) evaluated the use of a social media tool for collaborative group writing of secondary school students in Hong Kong. They claimed that social media tools, Wikis for collaborative groups, can promote online collaborative and interactive learning on secondary students.

Jeong (2019) examined the effects of online collaborative learning in enhancing learner motivation and classroom engagement of university students in South Korea. The study revealed online collaborative learning English activities showed the positive effect on improving EFL university students' learning performance and the students showed satisfaction in learning English through online collaborative learning. In

addition, this study presented that the social networking platform in online group collaboration played an important role for the students in understanding the process of online group collaboration.

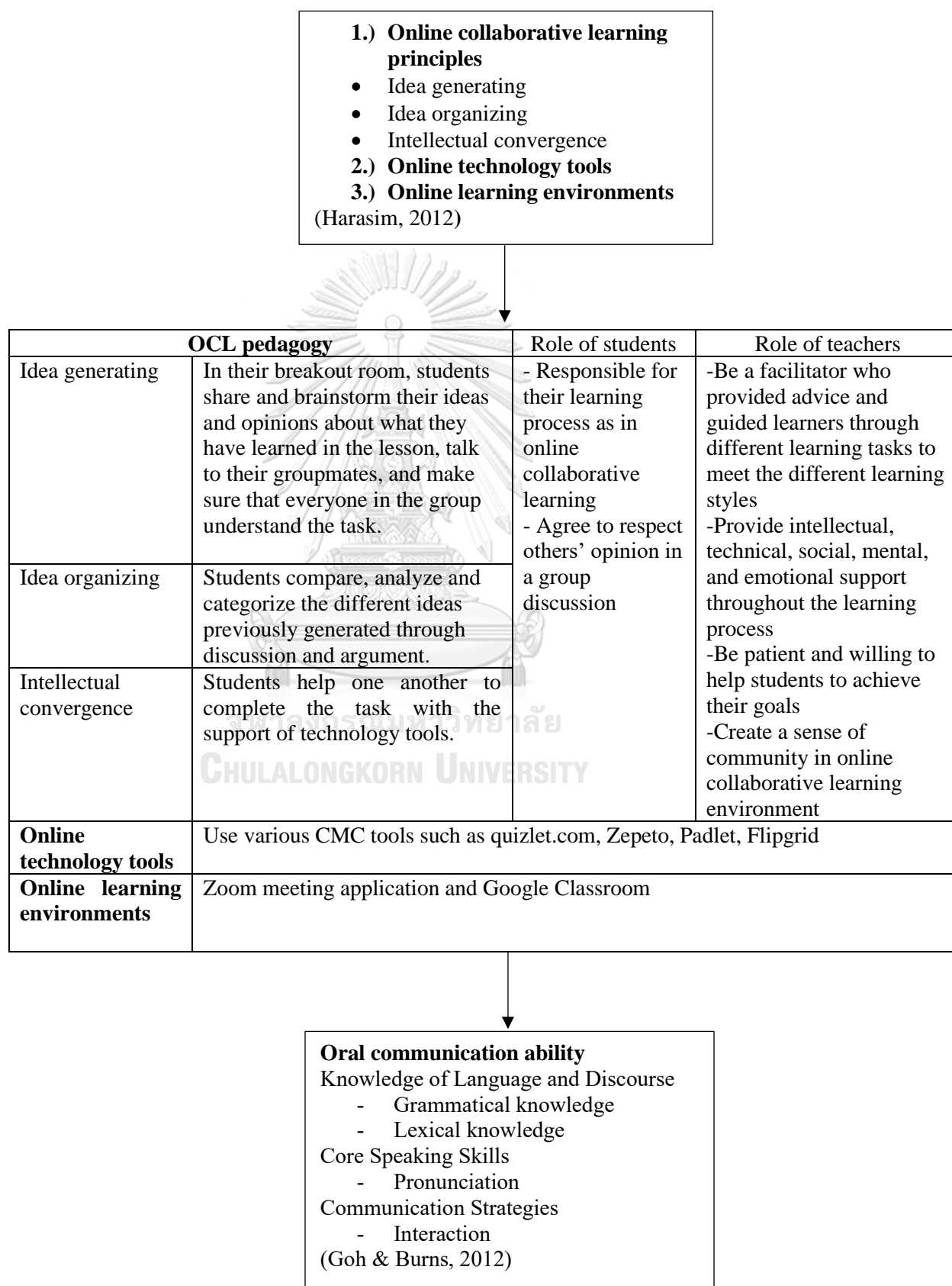
Ramos (2020) examined the effects of online collaborative activities in improving oral interaction of seventh grade students with a Pre-A1 English level in Ecuador. The study revealed that the findings showed a positive effect in collaborative activities and a technology tool, Flipgrid, supported collaborative activities.

Marimuthu et al. (2017) investigated the effects of online collaborative learning via Edmodo in fostering students' performance of engineering students in Malaysia. The study revealed that students performed better in a course especially in online group discussions and online facilities such as Edmodo encouraged positive collaborative learning experiences among students at higher learning institutions.

To sum up, recent studies on the effects of online collaborative learning in enhancing English oral communication ability among beginner or lower proficiency level students are still limited. Nevertheless, there are various studies that showed the effects of online collaborative learning on English language skills, learning performance, and learning experiences. In addition, some studies found the benefit of technology tools in supporting online collaborative learning. Therefore, this present study attempted to fill this gap by investigating the use of OCL in the English speaking course for EFL lower secondary students to see its effects on the students' oral communication ability.

Research framework

Figure 3 Research framework of using online collaborative learning to enhance English oral communication ability of lower secondary students



Chapter 3

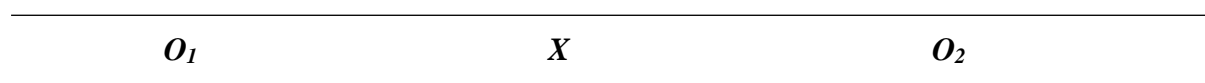
Research Methodology

This present study aimed to investigate the effects of online collaborative learning in enhancing English oral communication ability of EFL lower secondary students and to explore opinions of EFL lower secondary students towards the use of online collaborative learning. This chapter outlined the overall design of the research methodology and procedures used in this study. This chapter consisted of the research design, population, and procedures, along with the development and validation of research instruments. Finally, the data collection and data analysis were discussed

Research Design

This study employed a mixed method research design with included both quantitative and qualitative research design. The objective of the study was to investigate the effects of online collaborative learning in enhancing English oral communication ability of EFL lower secondary students. Following to the treatment, students' opinions on the approach were examined through a semi-structured interview. The pre-test and post-test were obtained and analyzed to provide evidence of the effects of online collaborative learning on students' English oral communication ability. The design of this research was illustrated below,

Figure 4 Research design



From figure 3, X was a treatment, which was an online collaborative learning. O_1 and O_2 were the measurement of dependent variable, which was English oral communication ability.

Population and Participants

Population

The population of this study were EFL lower secondary students in a private school in Phra Nakhon Si Ayutthaya province, Thailand.

Participants

The participants of the study were thirty 9th grade students studying in a regular program who enrolled for the English speaking course which is an additional course for lower secondary students in the first semester of the academic year 2021. As the empirical experiences from the English teachers in the school, the teachers found that 9th grade students were having English oral communication problems. Thus, to improve English oral communication skills for students in the regular program, the school provides additional English subjects for students. The students selected subjects based on their needs. It means that they have high motivation in learning. The age group of the participants ranged from fourteen to fifteen years. The students comprised ten males and twenty females who enrolled for the English speaking course. They were an intact group and selected based on convenience sampling. In addition, there were six students selected as participants for the interview. The selected students were based on their performances according to the post-test scores (two high achievers, two medium achievers, and two lower achievers).

Research Procedures

The research procedures were divided into two phases. The first phase consisted of the development of instructional instruments and research instruments. The second phase involved the implementation of online collaborative learning in 9th grade students. The details of the research procedures were presented as follows:

Phase I: the development of instructional instruments and research instruments

1. Explored and reviewed literatures of online collaborative learning and oral communication ability
2. Constructed research instruments including pre-test, post-test and holistic rubric score and constructed instructional instruments, which were content, materials, unit plan and lesson plans
3. Validated the effectiveness of the research instruments and instructional instruments by three experts using Item-Objective Congruence (IOC)
4. Conducted a pilot study
5. Revised the research instruments and instructional instruments based on the experts' comments and the finding of pilot study

Phase II: the implementation of the online collaborative learning

1. Conducted online pre-test of English oral communication ability
2. Implemented online collaborative learning on speaking lessons
3. Conducted online post-test of English oral communication ability
4. Evaluated the effects of online collaborative learning in enhancing English oral communication ability of participants
5. Conducted a semi-structured interview to seek the opinions of participants towards online collaborative learning
6. Analyzed the data from the interview

Research Instruments

In this study, there were two main research instruments namely: pre- and post-tests, and interview questions. First, the pre- and post-tests were used to investigate the

effects of online collaborative learning on English oral communication ability of lower secondary students. Second, the interview questions were used to conduct a semi-structured interview to seek opinions of EFL lower secondary students towards the use of online collaborative learning.

Pre-test and Post-test

To investigate the effects of online collaborative learning on English oral communication ability, English oral communication ability pre-test and post-test were conducted online with EFL lower secondary students. The pre-test was conducted in the first week and the post-test was conducted in the eleventh week. The pre-test and post-test were parallel tests, which were presented to students as direct test.

This study adapted a speaking test from the Cambridge English Assessment speaking test for A2 level (as seen in Appendix B). The A2 key qualification refers to the ability to use English to communicate in simple situations which is suitable for EFL lower secondary students (Cambridge Assessment English, 2020). The Cambridge English Assessment speaking test for A2 level is a standardize test which has simple procedures and easy-following procedures for the students. In addition, the characteristics of the test suit the characteristics of the students. The test had been adapted in some questions and pictures. Some questions, such as “Are you work?”, is not relevant to the students and the pictures had been changed to make it clearer.

Table 1 The protocol of the test

The protocol of the test (8-10 mins)	Students (2-3 students)	Researcher & Co- teacher
Part 1: phase 1 In this part, the interlocutor will greet both students with some simple questions. No assessment in this part.	Each student needs to answer the questions.	- The researcher worked as an interlocutor and the first assessor, and one co-teacher worked as the second assessor. - Students were assessed on their individual performance and not in relation to each other.
Part 1: phase 2 The interlocutor will ask some questions to both students about simple personal and family information, favorite things, or shopping.	Each student needs to answer the questions.	
Part 2: phase 1 The interlocutor will show some pictures to both students and ask them questions.	Both students need to talk together to answer the question.	
Part 2: phase 2 The interlocutor will ask more questions to each student about the pictures.	Each student needs to answer the questions.	

According to Cambridge Assessment English (2020), conducting the Cambridge English Assessment speaking test for A2 level requires two examiners: one interlocutor and one assessor. Thus, in this study, the researcher worked as an interlocutor and one co-teacher worked as an assessor. To find the reliability of the test, the researcher needed to assess the test while working as an interlocutor. As for the qualification of two examiners, the researcher and co-teacher studied how to use the assessment scales together by reading the guideline and watching the test video on Cambridge Youtube channel and practiced in the pilot study. The students took the test in pairs. Throughout the test, the students were assessed on their individual performance and not in relation to each other. They were awarded marks by the researcher and the

co-teacher. The interrater reliability was used for a score evaluation. Students had to help one another to do the test. The questions were related to what students learn in the English speaking course. Specifically, students applied oral communication ability to answer the questions. Given that the pre-test and post-test in the study were parallel tests, the questions had the same level of difficulty. Students had eight to ten minutes to do the test.

Validation

The Item-Objective Congruence (IOC) form was constructed to examine the content validity of the test. It was measured by three experienced experts in the fields of applied linguistics, English language teaching, and assessment and evaluation who have more than five years of teaching experience. The test instruction, time allocation, test items, test pictures were assessed according to the IOC index ranging from -1 to 1 as follows:

+1	means	Congruent
0	means	Questionable
-1	means	Incongruent

After the experts had validated the test questions, the gained scores were calculated. The results presented that, in terms of the appropriation of the task and quality of the questions, the scores were above 0.6, meaning that this test allowed for English oral communication ability. However, there were some questions needed to be revised according to the expert's comment. The revised items are shown and explained as follows.

B, do you work or are you a student?
Where do you live?
Thank you.

→

B, are you a student?
Where do you live?
Thank you.

According to the comment from the expert, this question had to be revised because it is not relevant to the students.

Now, do you prefer eating with friends or family, **B**? (Why?)

Now, do you prefer to eat with friends or family, **B**? (Why?)

After the pilot of the test, the researcher found that the students were confused with this sentence structure, so the researcher decided to modify it.

In addition, some experts commented that some pictures and the instructions should be clearer. The researcher, therefore, revised the test accordingly.

Reliability

The test has been piloted and were calculated to find the difficulty index (p) and the discrimination index (r) to examine reliability. The set criteria are as follows:

For the difficulty index (p)

$P < .20$

means the item is difficult.

$P = .20 - .80$

means the item is good in terms of its difficult.

$P = .81 - .94$

means the item is easy.

$P \geq .95$

means the item is very easy.

For the discrimination index (r)

$r = 0$

means the item has no discrimination ability.

$r \leq .19$

means the item has a low discrimination ability.

$r = .20 - .29$

means the item has a fair discrimination ability.

$r = .30 - .39$ means the item has a high discrimination ability.

$r \geq .40$ means the item has a very high discrimination.

According to the above criteria, the difficulty index was at an acceptable level with scores between .23 and .77. It means the items were good in terms of difficulty. For the discrimination index, the results presented that the items had a high discrimination ability with scores ranging from .30 - .38.

Rubric Score

While completing the pre and post-tests, students were assessed using a holistic rubric adopted from the Cambridge A2 Preliminary Assessment Scales to evaluate students' English oral communication ability. The criteria of evaluation were grammar and vocabulary, pronunciation, and interactive communication. The criteria assessed three individual criteria: 1) Grammar and Vocabulary, 2) Pronunciation, and 3) Interactive Communication. Grammar and vocabulary refer to the knowledge of spoken structures, grammatical features, and lexis. Pronunciation refers to the ability to articulate the vowels and consonants clearly and having correct word stress. Lastly, interactive communication refers to the ability to ask for clarification or repetition or checking comprehension in order to handle the communication breakdowns.

This assessment scales were divided into six bands from 0 to 5, with 0 being the lowest and 5 the highest. A2 Preliminary is at Level A2 of the Common European Framework of Reference (CEFR) (Cambridge Assessment English, 2020). The description of the holistic rubric was illustrated below,

Table 2 Adopted Cambridge A2 Preliminary Assessment Scales (Cambridge Assessment English, 2020).

A2	Grammar and Vocabulary	Pronunciation	Interactive Communication
5	<ul style="list-style-type: none"> Shows a good degree of control of simple grammatical forms. Uses a range of appropriate vocabulary when talking about everyday situations. 	<ul style="list-style-type: none"> Is mostly intelligible, and has some control of phonological features at both utterance and word levels. 	<ul style="list-style-type: none"> Maintains simple exchanges. Requires very little prompting and support.
4	<i>Performance shares features of Bands 3 and 5.</i>		
3	<ul style="list-style-type: none"> Shows sufficient control of simple grammatical forms. Uses appropriate vocabulary to talk about everyday situations. 	<ul style="list-style-type: none"> Is mostly intelligible, despite limited control of phonological features. 	<ul style="list-style-type: none"> Maintains simple exchanges, despite some difficulty. Requires prompting and support.
2	<i>Performance shares features of Bands 1 and 3.</i>		
1	<ul style="list-style-type: none"> Shows only limited control of a few grammatical forms. Uses a vocabulary of isolated words and phrases. 	<ul style="list-style-type: none"> Has very limited control of phonological features and is often unintelligible. 	<ul style="list-style-type: none"> Has considerable difficulty maintaining simple exchanges. Requires additional prompting and support.
0	<i>Performance below Band 1.</i>		

Validation

After the experts had validated the criteria and assessment scales, the gained scores were calculated. The results presented that the scores for the criteria were above 0.6, meaning that this rubric was compatible to evaluate English oral communication ability.

Reliability

As for reliability, the Cohen's Kappa interrater reliability was employed to examine the consistency between two raters using the holistic rubric adopted from the Cambridge A2 Preliminary Assessment Scales (Cambridge Assessment English, 2020). The first rater was the researcher, and the second rater was a co-teacher from the school. Both raters evaluated students' English oral communication ability using the holistic rubric together. The result of applying the Cohen's Kappa interrater reliability is 0.82. It implied that the two raters had an almost perfect agreement (McHugh, 2012).

Interview Questions

To seek the opinions of EFL secondary students towards the use of online collaborative learning in terms of feeling, benefits, problems, the semi-structured interview was conducted in the eleventh week of the study after the completion of the post-test. The researcher conducted a semi-structured interview with two low achievers, two middle achievers, and two high achievers based on the post-test scores to seek their opinions on online collaborative learning. The semi-structured interview lasted for eight to ten minutes per person. The questions were as follows:

1. How do you feel about learning English speaking using online collaborative learning?

นักเรียนรู้สึกอย่างไรกับการเรียนการพูดภาษาอังกฤษโดยวิธีการเรียนรู้ร่วมกันในลักษณะออนไลน์

2. What are the benefits of learning English speaking using online collaborative learning?

นักเรียนคิดว่าอะไรคือประโยชน์ของการเรียนการพูดภาษาอังกฤษโดยวิธีการเรียนรู้ร่วมกันในลักษณะออนไลน์

3. What are the problems or the difficulties of learning English speaking using online collaborative learning?

นักเรียนคิดว่าอะไรคือปัญหาหรือความยากลำบากของการเรียนการพูดภาษาอังกฤษโดยวิธีการเรียนรู้ร่วมกันในลักษณะออนไลน์

Validation

After the experts had validated the interview questions, the gained scores were calculated. The results presented that, the scores for the content validity were above 0.6, meaning that this interview questions were compatible to measure the opinions toward learning English speaking using online collaborative learning.

Instructional Instruments

Content

The content was based on the English standards of the revised version of Basic Education Core Curriculum B.E. 2560 (A.D. 2017).

Materials

The materials were adapted from Aim High Student's Book 3 textbook, videos, and instructional materials such as photographs, recorded voices.

Units Plan

The study covered seven units and was completed in nine weeks. Each unit composed of one to two lessons based on the learning objectives corresponding to the revised of Basic Education Core Curriculum B.E. 2560 (A.D. 2017).

Lesson Plans

There were nine online collaborative learning teaching English oral communication lesson plans that covered nine teaching weeks. The duration of each lesson plan was ninety minutes. The online collaborative learning teaching English oral communication lesson plans were taught by online collaborative learning principles. The lesson plan sample can be found in Appendix A. The instruction included 3 aspects as follows.

1.) Online collaborative learning pedagogy

- **idea generating:** in their breakout room, students shared and brainstormed their ideas and opinions about what they have learned in the lesson, talked to their groupmates and made sure that everyone in the group understand the task;
- **idea organizing:** students compared, analyzed and categorized the different ideas previously generated through discussion and argument;
- **intellectual convergence:** students helped one another to complete the task with the support of technology tools

2.) Online technology tools

This study used that advantage of CMC tools to create online collaborative tasks. For example, Quizlet.com, a free website providing learning tools for students, was chosen to help students learn new vocabulary through flashcards, live games, or practice tests. Moreover, Zepeto application, a social media application that lets users create their own 3D character, supported the activity to be more interesting. By using this tool, students created their own avatar, dressed in their own styles, and took a photo or video with their friends' avatar. It was attractive for online collaborative learning activities about clothes, gestures, or feelings.

3.) Online learning environments

In this study, a videoconferencing application, Zoom meeting, was selected as the online learning environment. In this application, the breakout room function helped the researcher to break the meeting room into separate rooms that contained two or more students. It benefits online collaborative learning group activities. Students can have discussions via microphone and

video camera or chatting in a chatbox. In addition, they can share their computer screen with their groupmates. The researcher can also observe and help students whenever they request help. Another online learning environment that most Thai students were familiar with is Google Classroom. This study used Google Classroom to discuss and make an announcement with the students

In order to implement an effective online collaborative learning, this study concerned the process of online collaborative learning as follows.

1.) Orienting students

The 30-minute orientation on the process of online collaborative learning and how to use CMC tools has been held on the first day of the course.

2.) Forming the collaborative learning group

As the time duration was 90 minutes per period, the informal groups were randomly formed with 4-6 students for each period.

3.) Group agreement

The groups' responsibilities and individual's responsibilities were explained to the students before the implementing of online collaborative learning.

4.) Constructing the collaborative learning task

The online collaborative tasks and activities were constructed based on the principles of online collaborative learning with the use of various CMC tools.

The students were driven to participate and practice their English oral communication ability through online collaborative learning tasks involving practicing the required discussion and attentively responding to the speaking tasks. For example, in the intellectual convergence stage, students had 15 minutes to work with their groupmates to discuss their clothes of their 3D

characters in the Zepeto application and prepare for presenting in the describing clothes activity (as seen in Appendix A).

5.) Assessment and evaluation of collaborative learning

The researcher provided opportunities for each group to give a group's feedback in Google classroom after the end of the activity and the researcher provided feedback of all groups and individuals in the Google Classroom.

According to Tu (2004), this study generated the role of students and teachers in the implementing of online collaborative learning.

Role of students

- Students were responsible for their learning process as in online collaborative learning.
- Students were agreed to respect others' opinion in a group discussion.

Role of teachers

- The teacher was a facilitator who provided advice and guided learners through different learning tasks to meet the different learning styles.
- The teacher provided intellectual, technical, social, mental, and emotional support throughout the learning process in order to support the online collaborative learning.
- The teacher was patient and willing to help students to achieve their goals.
- The teacher created a sense of community in online collaborative learning environment, such as a group discussion, to encourage students to feel relaxed to share their opinions, thoughts, and perspectives.

Validation

After the experts had validated the lesson plans, the gained scores were calculated. The results present that all aspects of the lesson plans were rated above 0.6 except 'timing'. Two experts suggested increasing the time allocation because all activities in the lesson need more time to complete. According to the expert's suggestion, the researcher accordingly revised the lesson plans.

To ensure that the lesson plans would work well, after validation, two lessons were rehearsed with another class of thirty 9th grade students who had similar characteristics, English proficiency, and educational background, with the participants of the study. According to the level of students, the teaching activity was conducted interchangeably in both Thai and English. The result of the pilot was that the students were able to understand the instruction of each activity and complete all activities in time. In addition, the students are mix-ability of English speaking, so some activities were quite too difficult for them. Thus, the researcher revised those activities and provided them with sample sentences. Finally, they could complete the activity as a group.

Data Collection

After all the lesson plans and materials were validated, they were used to collect data from thirty 9th grade students as the participants of the research. According to Badr (2020), positive effects were found in using online collaborative learning of EFL students within eight teaching weeks. In this study, the data collection procedure lasted for the total of eleven weeks. The data collection process in this present study is as follows:

Table 3 Summary of data collection procedures

Week	Unit
Week 1	Pre-test
Week 2	Unit 1: Travel Lesson 1: Expressing needs
Week 3	Unit 1: Travel Lesson 2: Offering help
Week 4	Unit 2: Clothes Lesson: What are they wearing?
Week 5	Unit 3: Feeling Lesson: Describing feeling
Week 6	Unit 4: World of work Lesson: Describing activities at work
Week 7	Unit 5: Body and Mind Lesson 1: Get to know body idioms
Week 8	Unit 5: Body and Mind Lesson 2: Comparing body idioms
Week 9	Unit 6: Money and finance Lesson: How you spend money?
Week 10	Unit 7: Friendship

Lesson: Tell me about our relationship

Week 11

Post-test

Semi-structured interview

Week 1: Pre-test

The pre-test was administrated on the first day of class to assess students' English oral communication ability prior to the implementation of online collaborative learning in the following nine weeks. This study adapted a speaking test from the Cambridge English Assessment speaking test for A2 level. The test was conducted online by the researcher worked as an interlocutor and one co-teacher who worked as an assessor. The students took the test in pairs. The video of the test was recorded and assessed by the researcher and the co-teacher later. Throughout the test, the students were assessed on their individual performance and not in relation to each other. They were awarded marks by the researcher and the co-teacher. The interrater reliability was used for score evaluation. Students had to help one another to do the test. The questions were related to what students learn in the English speaking course. Specifically, students applied oral communication ability to answer the questions. Given that the pre-test and post-test in the study were parallel tests, the questions had same the level of difficulty. Students had eight to ten minutes to do the test. The student's question responses were assessed by using the holistic rubric which was adopt from the Cambridge A2 Preliminary Assessment Scales (Cambridge Assessment English, 2020).

Week 2-10: Online Collaborative Learning Teaching Lessons

The online collaborative learning was implemented to 9th grade students for ninety minutes per day for nine weeks.

Week 11: Post-test and Semi-structured interview

The online post-test was administrated on the eleventh week of the study to assess students' English oral communication ability after the implementation of online collaborative learning in nine weeks. The post-test was paralleled to the pre-test, which means that it shared the same difficulty level. To complete a post-test, students were tested by the adapted speaking test from the Cambridge English Assessment speaking test for A2 level. The interrater reliability was used for a score evaluation. The questions were related to what students learn in the English-speaking subject. Specifically, students applied oral communication ability to answer the questions. Students had eight to ten minutes to do the test. The student's question responses were assessed by using the Cambridge A2 Preliminary Assessment Scales (Cambridge Assessment English, 2020).

Following the post-test, a semi-structured interview was conducted to interview two low achievers, two middle achievers, and two high achievers based on the post-test scores to explore their opinions on online collaborative learning. The selecting participants were asked to participate in the interview for eight to ten minutes per person.

Data Analysis

Data analysis for research question 1

The first research question was concerned with the effect of online collaborative learning in enhancing English oral communication ability of secondary students. To

analyze the data, the participants' mean scores from a pre-test and post-test were analyzed by a paired-sample t-test to investigate the effect of online collaborative learning in enhancing English oral communication ability of the participants. Moreover, the effect size proposed by (Cohen, 1988) was calculated as the magnitude of the implementation. The analyzed result was interpreted with the following criteria.

>0.8	signifies a large effect size
0.5 – 0.8	signifies to a medium effect size
0.0 – 0.4	signifies to a small effect size

Data analysis for research question 2

The second research question was concerned with opinion of the participants towards the use of online collaborative learning in terms of feeling, benefits, problems. To analyze, the information from the semi-structured interview was analyzed through thematic analysis.

The summary of data analysis process was illustrated below:

Table 4 Summary of data analysis process

Research Objectives	Research Instruments	Analysis Methods
1. To investigate the effects of online collaborative learning in enhancing English oral communication ability of EFL lower secondary students	Pre-test and Post-test	S.D. and Mean A paired sample t-test Effect size

2. To explore opinions of EFL lower secondary students towards the use of online collaborative learning.	Semi-structured interview	Thematic analysis
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Chapter 4

Findings

This chapter demonstrated the research findings of the effects of online collaborative learning in enhancing English oral communication ability. The results were presented according to two objectives. The first objective is to investigate the effects of online collaborative learning in enhancing English oral communication ability of EFL lower secondary students. The mean scores of pre-test and post-test of all participants was recorded. The second objective is to explore the opinions of EFL lower secondary students towards the use of online collaborative learning in terms of feeling, benefits, problems. The opinions of students were analyzed from the semi-structured interview by thematic analysis.

The findings are reported based on the research questions

Research question 1: To what extent does online collaborative learning enhance English oral communication ability of EFL lower secondary students?

This purpose of this research question is to investigate the effects of online collaborative learning in enhancing the English oral communication ability of EFL lower secondary students. The pre-test and post-test, which are of the same level of difficulty, were employed to explore whether online collaborative learning will enhance English oral communication ability in three aspects: Grammar and Vocabulary, Pronunciation, and Interactive Communication. These aspects were analyzed using a paired sample t-test. The results are presented and discussed below.

Table 5 Result of pre-test and post-test for English oral communication ability of all participants

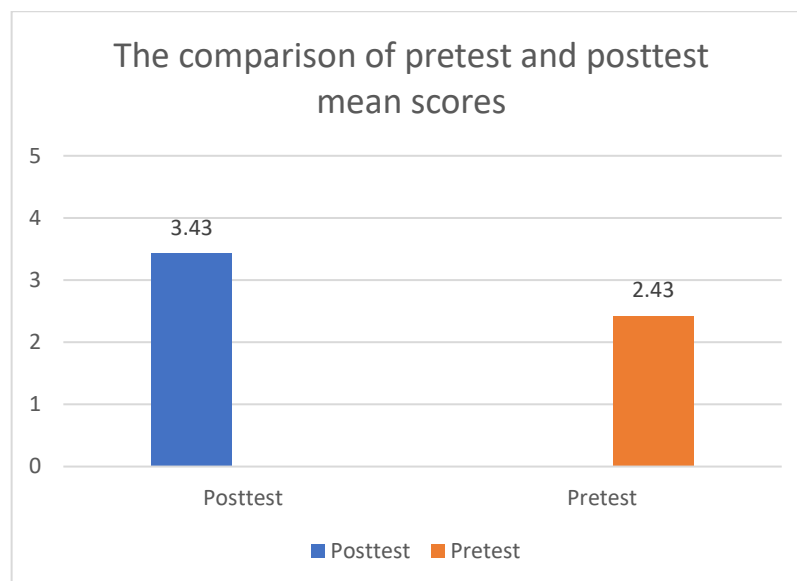
English oral communication ability	N	Mean		Mean differenc e	t.	df.	Sig.
		\bar{X}	S.D.				
Post-test	30	3.43	1.19	1.00	10.428	29	0.000**
Pre-test	30	2.43	1.33				

*P < .01

The results in the above table show that the participants' post-test mean score is 3.43 (S.D. = 1.19) and the pre-test mean score is 2.34 (S.D. = 1.33). To clarify, the post-test mean score of the participants is higher than their pre-test mean score at the significant level of $P < .01$ after participating in the course. The total score of the two tests is 15 and was divided into 5. The mean difference is 1.00. The T-value is 10.482. The degree of freedom is 29. The differences between the mean scores of the pre-test and post-test are revealed in the following figure.

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Figure 5 Differences between mean scores of pre-test and post-test



According to figure 4, the result shows that online collaborative learning was able to enhance English oral communication ability. The mean score of the post-test was higher than pre-test with a mean difference of 1.00.

In addition, to measure the magnitude of the effectiveness of online collaborative learning, the effect size value was calculated using Cohen's d. The result is presented as follows.

Table 6 Effect size of using online collaborative learning in enhancing English oral communication ability

Cohen's d	Effect Size
0.79	Medium

According to table 6, the Cohen's d was 0.79, which was implied as a medium effect of implementation. The criteria proposed by Cohen (1988) mentioned that $d = 0.0 - 0.4$ refers to small effect, $d = 0.5 - 0.7$ refers to medium effect, and $d > 0.8$ refers

to large effect. Therefore, it could be indicated that online collaborative learning had a medium effect on English oral communication ability of the students.

Since there were 3 aspects of English oral communication ability to investigate in this study, to present more detail, the results from Grammar and Vocabulary, Pronunciation, and Interactive Communication from pre-test and post-test are reported as follows.

R.Q.1: Grammar and Vocabulary

Table 7 Result of Grammar and Vocabulary of pre-test and post-test

Grammar and Vocabulary	N	Mean	Std. Deviation	t	df	Sig.
Post-test	30	3.27	1.46	6.158	29	0.000**
Pre-test	30	2.13	1.46			

***P < .01**

Table 7 shows the results of English oral communication ability in the aspect of Grammar and Vocabulary in the pre-test and post-test. The total score of this section is 5. The post-test mean score (Mean = 3.27, S.D. = 1.46) is higher than the pre-test mean score (Mean = 2.13, S.D. = 1.46) at the significant level of $P < 0.1$, with the t-value of 6.158, and the degree of freedom of 29. Thus, the result shows that online collaborative learning possibly enhanced English oral communication ability in the aspect of Grammar and Vocabulary.

R.Q.1: Pronunciation

Table 8 Result of Pronunciation of pre-test and post-test

Pronunciation	N	Mean	Std. Deviation	t	df	Sig.
Post-test	30	3.27	1.36	3.525	29	0.001**
Pre-test	30	2.67	1.40			

***P < .01**

Table 8 shows the results of English oral communication ability in the aspect of Pronunciation in the pre-test and post-test. The total score of this section is 5. The post-test mean score (Mean = 3.27, S.D. = 1.36) is higher than the pre-test mean score (Mean = 2.67, S.D. = 1.40) at the significant level of $P < 0.1$, with the t-value of 3.525, and the degree of freedom of 29. Thus, the results show that online collaborative learning possibly enhanced English oral communication ability in the aspect of Pronunciation.

R.Q.1: Interactive Communication

Table 9 Result of Interactive Communication of pre-test and post-test

Interactive Communication	N	Mean	Std. Deviation	t	df	Sig.
Post-test	30	3.53	1.28	5.037	29	0.000**
Pre-test	30	2.60	1.52			

***P < .01**

Table 9 shows the results of English oral communication ability in the aspect of Interactive Communication in the pre-test and post-test. The total score of this section is 5. The post-test mean score (Mean = 3.53, S.D. = 1.28) is higher than the pre-test mean score (Mean = 2.60, S.D. = 1.52) at the significant level of $P < 0.1$, with the t-value of 5.037, and the degree of freedom of 29. Thus, the results show that online collaborative learning possibly enhanced English oral communication ability in the aspect of Interactive Communication.

Summary of Findings for Research Question 1

All results illustrate that online collaborative learning significantly enhanced English oral communication ability at the significant level of $P < .01$. The mean score of the pre-test and post-test is 1.000. These results indicated that most students' post-test scores increased on an average of 1.000 point and the t-value is 10.428. The results

also reveal that online collaborative learning significantly enhanced all three aspects of English oral communication ability.

To clarify, online collaborative learning significantly enhanced English oral communication ability in the aspect of Grammar and Vocabulary (p -value = 0.000). The mean score of the pre-test and post-test is 1.133. To clarify, most students' post-test scores increased an average of 1.133 points and the t -value is 6.158. In the pre-test, students showed only limited control of a few grammatical forms and used a vocabulary of isolated words and phrases. However, in the post-test, most students showed sufficient control of simple grammatical forms and used appropriate vocabulary to talk about everyday situations.

In addition, online collaborative learning significantly enhanced English oral communication ability in the aspect of Pronunciation (p -value = 0.000). The mean score of the pre-test and post-test is 0.6. To clarify, most students' post-test scores increased an average of 0.6 points and the t -value is 3.525. In the pre-test, students had very limited control of phonological features. However, in the post-test, students' pronunciation is mostly intelligible, but they had limited control of phonological features.

Lastly, online collaborative learning significantly enhanced English oral communication ability in the aspect of Interactive Communication (p -value = 0.000). The mean score of the pre-test and post-test is 0.933. To clarify, most students' post-test scores increased on an average of 0.933 points and the t -value is 5.037. In the pre-test, students maintained simple exchanges and required prompting and support. For example, students asked for clarification. However, in the post-test, they maintained simple exchanges and required very little prompting and support.

Figure 6 Comparison between three aspects of English oral communication ability

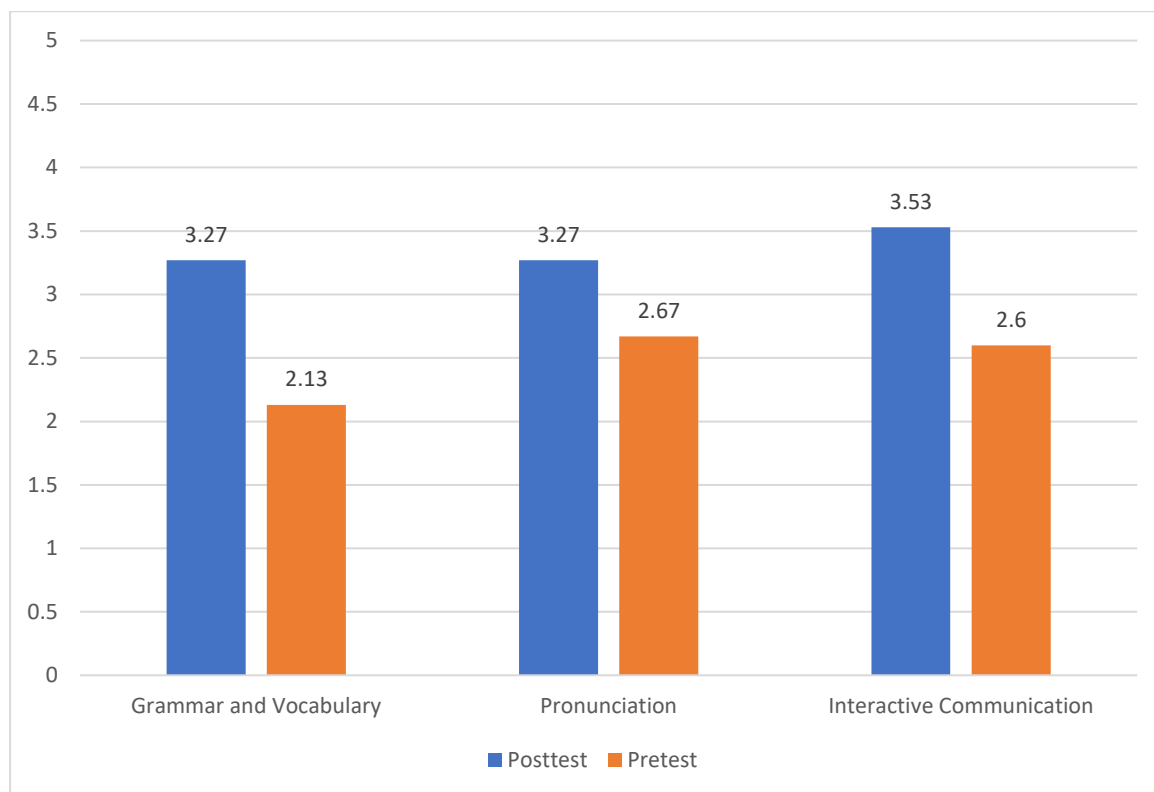


Figure 5 reports that online collaborative learning significantly enhanced all three aspects of English oral communication ability (p-value = 0.000). Grammar and Vocabulary and Interactive Communication (1.133, 0.933) were the aspects that students improved the most, whereas students improved Pronunciation the least (0.6).

Research question 2: What are the opinions of EFL lower secondary students towards the use of online collaborative learning in enhancing English oral communication ability?

To explore the opinions of 9th grade students towards online collaborative learning, the researcher conducted a semi-structured interview with six participants. The participants were randomly selected based on the pre-test and post-test scores. Two students were selected from the high performance group, two students were selected from the medium performance group, and two students were selected from the low

performance group. The researcher coded interviewees by using letters and numbers. For instance, H refers to high performance, M refers to medium performance, and L refers to low performance. The semi-structured interview used thematic analysis to capture students' opinions towards the use of OCL. The key themes were 1) advantages of this approach, and 2) difficulties and limitations of learning through this approach. After using thematic analysis to analyze the data, the participants enjoyed with learning through this approach, and they found OCL convenient to apply to their studies at present. They encountered enjoyable learning experiences and they highlighted the benefits of the approach in increasing opportunities for them to practice English oral communication. However, some participants also mentioned some difficulties and limitations they encountered while learning through this approach. The thematic analysis was divided into two aspects as follows:

1. Advantages of OCL

For the first theme, advantages of this approach, the participants generally expressed their positive views towards OCL in terms of feeling, benefit, and problems. They enjoyed with learning through this approach, and they found OCL convenient to apply to their studies at present. They encountered enjoyable learning experiences and they highlighted the benefits of the approach in increasing opportunities for them to practice English oral communication. Some excerpts from the interview are shown as follows.

H1: “มีความสุขที่ได้ฝึกพูดโต้ตอบกัน และได้ประสบการณ์ใหม่ ๆ ในการเรียนออนไลน์ อย่างตอนครูให้

สร้างตัวละครสามมิติในแอป หรือเรียนคำศัพท์ในเว็บ หนูชอบการเรียนและทำกิจกรรมออนไลน์ บาง

กิจกรรมรู้สึกว่าเป็นเรื่องใหม่ดี และชอบที่ครูให้เวลาในการซ่อมพูด หรือหาข้อมูลต่าง ๆ ทำให้รู้สึกว่าการเรียนไม่ได้จำกัดอยู่แค่ในห้องเรียน”

“I was happy to practice English conversation and had new experiences in online learning. For example, I had to build my 3D avatar in the application or learning vocabulary on websites. I thought that some activities were new for me, and I liked it when the teacher gave me more time to practice speaking or finding information. I felt that learning was not limit only in a classroom.”

M2: “ผมชอบที่ได้เรียนพูด และรู้สึกสะดวกสบายเพราะได้เรียนที่บ้าน การเรียนออนไลน์ทำให้ผมได้ค้นคว้าหาข้อมูลได้มากขึ้น เช่นการเปิดเว็บหาคำศัพท์ หรือตรวจแกรมม่า และผมชอบที่ครูใช้แอป หรือเว็บใหม่ ๆ มาทำกิจกรรม รู้สึกว่าสนุกดีครับ”

“I liked to learn English speaking, and it was convenient and comfortable to study at home. I could search for vocabulary and checked for grammar through online learning. I liked when the teacher used new applications or websites in the activities, I thought it was fun.”

H2: “ถึงจะไม่ได้เจอกันจริง ๆ แต่ผมรู้สึกสนุกที่ได้ทำกิจกรรมร่วมกับเพื่อนครับ ผมรู้สึกว่าการเรียนออนไลน์ต้องรับผิดชอบตัวเองมากขึ้น ชอบที่ได้ทำกิจกรรม แล้วได้ประเมินเพื่อนในกลุ่มด้วยครับ ตัวผมเองได้รู้ปัญหาของตัวเองจากการประเมินการมีส่วนร่วมในกลุ่ม ทำให้ผมได้แก้ไข และทำครั้งต่อไปให้ดีขึ้น”

“Although we couldn’t meet face-to-face, I enjoyed doing activities with friends. I felt online learning needed self-discipline. I liked to join the activities and gave feedback to my group. I was aware of my problems from the feedback, then I could make it better.”

The interviewees highlighted the benefits of the approach in increasing opportunities for them to practice English oral communication. Some excerpts from the interview are shown as follows.

L1: “หนูรู้สึกดีใจมากที่ได้เรียนวิชานี้และสนุกที่ได้ฝึกฝนการพูดภาษาอังกฤษในรูปแบบการเรียนออนไลน์ค่ะ หนูชอบที่ครูมีกิจกรรมใหม่ๆ มาให้ทำทุกคาบที่เรียนเลย ไม่เบื่อเลยค่ะ กิจกรรมที่ครูให้ทำ ทำให้หนูได้ฝึกพูดกับกลุ่มเพื่อนๆ บางอย่างทีหนูไม่แน่ใจ เพื่อนก็ช่วยอธิบายให้ เวลามีปัญหา ก็ถามครูได้เลย”

“I enjoyed studying this course, and it was fun to practice English speaking through online learning. I liked when the teacher had new activities in every class and I was not bored. The activities help me practice speaking within the group. When I had something that I was not sure about it, my friends explained to me. And I can ask the teacher any time.”

H1: “หนูได้มีโอกาสฝึกพูดโต้ตอบกัน ฝึกการออกเสียงภาษาอังกฤษให้ถูกต้องตามหลัก และการพูดที่มีการเรียงประโยคอย่างถูกต้องชัดเจนค่ะ ตอนเรียนออนไลน์หนูกล้าพูดมากกว่าตอนอยู่ในห้อง เพราะบางครั้งหนูไม่ต้องเปิดกล้องค่ะ ชอบที่ทุกคนมีส่วนร่วมในการเรียน เพราะต้องช่วยกันทำงานกลุ่ม”

“I had a chance to practice speaking, pronunciation, and sentence order. I had more confident when learning online because sometimes I did not have to turn on my camera. I liked when everyone participated the class because we had to help one another to do the group work.”

M1: “หนูรู้สึกสนุกและอยากจะเรียนต่อ ๆ ไปทุกวัน จะได้คุ้นเคยกับการพูดภาษาอังกฤษด้วยค่ะ สิ่งที่หนูเรียนรู้จากกิจกรรมต่าง ๆ สามารถเอาไปใช้ในชีวิตประจำวันได้ อย่างเช่น การพูดเรื่องเสื้อผ้า การแต่งตัว บางคำหนูเจอบ่อย ๆ ตอนชื่อของออนไลน์ด้วยค่ะ”

“It was fun, and I wanted to keep studying every day to be familiar with speaking English. I thought that what I have learned from the activities can apply in my real life. For example, when we talked about describing clothes, I found some words when I had online shopping.”

L2: “หนูรู้สึกสนุกมากเลยค่ะ ได้ฝึกทักษะการพูดภาษาอังกฤษในแบบต่าง ๆ ฝึกความกล้าแสดงออกของนักเรียนแต่ละคน และฝึกความเป็นผู้นำในการทำกิจกรรมกลุ่มด้วย”

“It was fun to practice various English-speaking skills. I improved my self-confidence and leadership skills in doing group activities.”

Some participants stated that they encountered difficulties and limitations in learning English oral communication through OCL, however, these problems seem to be diminished afterwards.

2. Difficulties and Limitations

Some participants also mentioned some difficulties and limitations they encountered while learning through this approach. First, a few students expressed their fear and lack of confidence when they have to speak English in class. Nevertheless, these problems seem to be diminished afterwards. Some excerpts from the interview are shown as follows.

L1: “ช่วงแรก ๆ หนูไม่ค่อยกล้าพูดค่ะ แต่พอเรียนไปเรื่อย ๆ ก็กล้าพูดมากขึ้น”

“At first, I spoke with lack of confidence, but I think I improved a lot after studying this course.”

M1: “หนูอาย ไม่มั่นใจ กลัวผิดค่ะ แต่กิจกรรมที่ครูให้ทำ ทำให้หนูมั่นใจมากขึ้น”

“I was shy to speak, lacked confidence, and was afraid of making mistakes. But the activities made me feel more confident.”

H2: “ตอนแรกผมไม่ค่อยกล้าพูดและกลัวผิดครับ แต่หลัง ๆ ไม่ค่อยกลัวแล้วครับ”

“At first, I lacked confidence and was afraid of making mistakes. Later, I felt I wasn't that afraid.”

L2: “เพื่อนในกลุ่มไม่ยอมฝึกพูด น่าจะอายหรือไม่กล้าพูดเพราะไม่รู้จักใคร แต่พอได้ทำงานกลุ่มด้วยกันบ่อย ๆ เริ่มคุ้นเคยกันทุกคนก็พูดคุยกันดีล่ะ”

“My groupmates didn't want to practice speaking. I thought they might be shy or lack confidence because we didn't know one another. However, when we had to do more group work, we were more familiar with one another and could talk in English better.”

H1: “เพื่อนในกลุ่มมาจากคนละห้อง บางคนไม่ค่อยเปิดไมค์ได้ตอบกันค่ะ เลยมีปัญหาเรื่องการสื่อสารกัน ตอนทำงานกลุ่ม แต่พอเรียนด้วยกัน ไปสักพักก็ดีขึ้นค่ะ”

“My groupmates came from different classrooms. Some of them didn't want to turn their microphone on, so we had communication problems. But when we studied together for a while, it was better.”

In terms of limitations, some participants pointed out the inconvenience that they encountered while learning English oral communication through online collaborative learning. A few interviewees mentioned the problems about unstable internet connection or electricity problems. Some excerpts from the interview are shown as follows.

M2: “บางครั้งผมก็มาทำกิจกรรมกับเพื่อนไม่ทัน เพราะเน็ตหลุดครับ”

“Sometimes, I couldn't join the activity because of the unstable internet connection.”

H2: “เรียน ะ อยู่แล้วไฟดับ ทำให้เรียนไม่ทันเพื่อนครับ”

“The power went out when I was studying, so I couldn’t catch up with friends.”

Summary of Findings for Research Question 2

The summary of students’ opinions toward the use of online collaborative learning were presented as follow.

Table 10 Summary of findings for research question 2

Advantages of OCL (feeling & benefits)	Frequencies
1. I like to learn speaking online	3
2. It is a flexible learning	4
3. Online activities improved speaking	3
4. I had a chance to practice speaking	4
5. It was convenient and comfortable	1
Difficulties and Limitations	Frequencies
1. I lacked confidence	4
2. I was shy to speak	3
3. I was afraid of making mistakes	2
4. Unstable internet connection	1
5. The power went out	1

Summary

The overall findings illustrated that English oral communication ability was enhanced at a significant level of .01 after online collaborative learning was implemented.

To answer the first research question, the results reported that online collaborative learning significantly enhanced English oral communication ability and all three aspects (p -value = 0.000). Grammar and Vocabulary and Interactive

Communication (1.133, 0.933) were the aspects that students improved the most, whereas students improved Pronunciation the least (0.6).

To answer the second research question, the qualitative data analysis indicated that the participants reported positive feedback towards the use of online collaborative learning. The participants enjoyed with learning through this approach, and they found OCL convenient to apply to their studies at present. They encountered enjoyable learning experiences and they highlighted the benefits of the approach in increasing opportunities for them to practice English oral communication. However, some participants also mentioned some difficulties and limitations they encountered while learning through this approach.

In conclusion, online collaborative learning could enhance students' English oral communication ability due to sufficient opportunities to learn, collaborate, and connect with their classmates and teachers through online collaborative learning principles and tasks. In addition, online collaborative learning was reported to be an enjoyable, convenient, and helpful method of instruction.

Chapter 5

Discussions and Conclusions

This chapter presents a summary of the study, a summary of the findings, and a discussion of the findings.

Summary of the study

The objectives of this study were 1) to investigate the effects of online collaborative learning in enhancing English oral communication ability of lower secondary students and 2) to explore opinions of EFL lower secondary students towards the use of online collaborative learning in enhancing English oral communication ability. The study applied a one-group pre-test and post-test research design. The participants in the study were thirty 9th grade students who enrolled in an additional English-speaking course for students in a regular program at a private school in Phra Nakhon Si Ayutthaya province, Thailand in the first semester of the 2021 academic year. The participants were selected based on convenience sampling.

The study was divided into two phases. The first phase was the development of instructional instruments and research instruments. The instructional instruments were content, materials, unit plan, and lesson plans. The content was based on the revised version of the Basic Education Core Curriculum B.E. 2560 (2017). The materials were adapted from the Aim High Student's Book 3 textbook, and other instructional materials such as photographs, recorded voices, and videos. The lesson plans were constructed as online collaborative learning teaching English oral communication and taught by online collaborative learning principles. The research instruments were pre-test, post-test, holistic rubric score, and interview questions. The pre-test and post-test, which were adapted from the Cambridge English Assessment speaking test for A2

level, applied in parallel direct tests and aimed to evaluate students' English oral communication ability. The holistic rubric score was adopted from the Cambridge A2 Preliminary Assessment Scales to evaluate students' grammar and vocabulary, pronunciation, and interactive communication. The semi-structured interview questions aimed to investigate students' opinions towards online collaborative learning teaching English oral communication.

The second phase was the implementation of OCL in 9th grade students. There was eleven weeks of instruction. The first week included the online pre-test and the eleventh week included the online post-test and interview. For the second to tenth week, nine online collaborative learning teaching English speaking lesson plans were implemented with thirty 9th grade students.

To investigate the effects of online collaborative learning in enhancing English oral communication ability, the data achieved from the pre-test and post-test were statistically analyzed using a paired sample t-test to compare the differences of students' English oral communication ability, overall ability, and ability in three aspects. In addition, to explore students' opinions toward online collaborative learning, the data from the semi-structured interview were analyzed by using thematic analysis.

Summary of findings

The summary of findings of this study was summarized into two aspects according to the research questions. The two aspects were 1) the effects of online collaborative learning in enhancing English oral communication ability and 2) opinions of EFL lower secondary students towards the use of online collaborative learning in enhancing English oral communication ability.

1) English oral communication ability

According to the results of research question one, the results from a paired-sample t-test revealed that the mean score of the post-test was higher than the pre-test at the significant level of .01. Therefore, it can be concluded that online collaborative learning significantly enhanced the English oral communication ability of EFL lower secondary students. Furthermore, online collaborative learning significantly enhanced all three aspects of English oral communication ability (p-value = 0.000). Grammar and Vocabulary and Interactive Communication were the aspects that students improved the most, whereas students improved Pronunciation the least.

2) EFL lower secondary students' opinions toward the use of online collaborative learning

According to the thematic analysis of the research question two, the qualitative data analysis indicated that the participants reported positive feedback towards the use of online collaborative learning. The participants enjoyed with learning through this approach, and they found OCL convenient to apply to their studies at present. They encountered enjoyable learning experiences and they highlighted the benefits of the approach in increasing opportunities for them to practice English oral communication. However, some participants also mentioned some difficulties and limitations they encountered while learning through this approach.

Discussions

The purpose of the present study was 1) to investigate the effects of online collaborative learning in enhancing English oral communication ability and 2) to explore the opinions of EFL lower secondary students towards the use of online collaborative learning in enhancing English oral communication ability. The results of

the study were discussed in two aspects, including students' English oral communication ability and students' opinions toward the instruction. The discussion was indicated as follows.

1) Students' English oral communication ability

The findings from the quantitative data analysis indicated that online collaborative learning could significantly enhance the English oral communication ability of the students. This is consistent with several studies, for instance, Badr (2020), Chiu et al. (2010), Graham et al. (2004), Jeong (2019), Marimuthu et al. (2017), Ramos (2020), Wang (2020). and These studies indicated that online collaborative learning allowed students to achieve English language skills. The findings can be explained as follows.

Firstly, the English oral communication ability of the participants possibly increased after the implementation of the instruction because they were provided with sufficient opportunities to use English oral communication during online collaborative learning. In particular, three key principles of online collaborative learning (Harasim, 2012), idea generating, idea organizing, and intellectual convergence, were implemented in all teaching procedures. First, idea generating was implemented in which students were encouraged to brainstorm about previous knowledge from the lesson learned with a small collaborative group. Second, idea organizing was implemented in which students learned to compare, analyze, and categorize the different ideas previously generated through discussion. Third, intellectual convergence was implemented in which students learned to reconstruct ideas and information through collaborative tasks. Throughout online collaborative learning, students had a new virtual experience in which they learned to brainstorm, generate, compare, and

reconstruct ideas and information online through the collaborative tasks without time limitation and limited accessibility in sources of information. In addition, in this study, the teacher was the facilitator who provided information and assisted students. As suggested by Pozzi and Persico (2011), the teacher's role should be a facilitator for students to complete their tasks, a provider of suitable tools and necessary materials, and a creator of criteria for individual and group work tasks.

Secondly, another possible factor that could lead to the improvement of participants' English oral communication ability after learning through online collaborative learning is online collaborative learning tasks. Chocholatá and Babičová (2021) mentioned that online collaborative learning tasks significantly improved students' English language skills including speaking. Furthermore, students improved through zones of proximal development with the help of their groupmates or teachers by active learning, sharing, and implementing interpersonal skills, and building meaning in the language (Luzzatto & Dimarco, 2009). Moreover, Major (2015) stated that scaffolding was an important part of learning in the online environment where students received support until they could do a certain task. In this study, the participants were driven to participate and practice their English oral communication ability through online collaborative learning tasks involving practicing the required discussion and attentively responding to the speaking tasks. In addition, online collaborative tasks provided students with opportunities to participate and speak English in a nonthreatening environment where students had enough time for discussion with their groupmates, searched for information, checked vocabulary and grammar, and practiced their pronunciation before presenting to the class. For example, in the intellectual convergence stage, students had fifteen minutes to work with their

groupmates in the describing clothes activity (as seen in Appendix A). Thus, it could be assumed that collaborative tasks are not only for learning onsite classes but also for online classes.

Thirdly, technology and tools significantly supported online collaborative learning in enhancing English oral communication ability. New technologies were combined with a learning management system that provide students with a more active learning environment in which they can collaborate or connect with other classmates and teachers in a more interactive and engaging way (Lowenthal et al., 2014). Moreover, most young learners have no difficulties with using digital technology as they are considered digital natives (Joseph, 2020). Pasfield (2011) mentioned the benefits of online environment for providing more chances for language production for L2 learners. In addition, CMC provided language learners opportunities for language practice with Native speakers (Arnold, et al., 2005; Itakura & Nakajima, 2001 cited in Huh, 2012). In this study, a videoconferencing tool, Zoom meeting application, provided students with more practice time to acquire their oral communication ability, and it also provided the teacher opportunities to observe students' speaking progress along with their presentation or online collaborative discussion. In addition, the online environment of this study was aligned with eight parts of CMC conditions for optimal language learning environments (Egbert & Hanson-Smith, 1999). For example, CMC tools such as Google classroom, Quizlet, Padlet, etc. supported OCL by providing students with opportunities to practice speaking, providing authentic tasks, or providing less stress environment. Thus, it could be said that this study can enhance English oral communication ability.

2) Students' opinions towards the instruction

According to the results from interview, it is indicated that students reported positive feedback toward the use of online collaborative learning. This study found the advantages of OCL in enhancing English oral communication ability in various aspects: flexible learning, students' engagement, authenticity of the tasks, and characteristics of CMC tools. However, some participants also mentioned some difficulties and limitations they encountered while learning through this approach. The results are discussed as follows.

First, the online collaborative learning was reported to be a flexible learning because of its convenient and comfortable. The reason for these benefits is that through online collaborative learning, teachers and students completed online sessions at home. Students could also search for information and check pronunciation and grammar before presenting to the class without time limitation. It can be assumed that students might feel more confident and relaxed to speak. This result also aligned Rodrigues and Vethamani (2015), who stated that the participants preferred to study online at home because it was more convenient (out of their classroom hours) and comfortable (less noise and distraction).

Second, the online collaborative learning significantly increased students' engagement. The reason that possibly justified this point is that the online collaborative learning kept students actively learning, collaborating, and connecting with their classmates and teacher in a more interactive way. Moreover, the role of the teacher was the facilitator who provided information, assisted students, facilitated students' autonomy and gave feedback. The students also mentioned that OCL helped them

improve self-discipline. The reason was because OCL supported interdependence of the students. The results also aligned with Badr (2020), stating that the principles of online collaborative learning provided students with a new experience that was difficult to achieve in their face-to-face learning experience. In addition, Jeong (2019) revealed that the participants showed satisfaction in learning English through online collaborative learning.

Third, the authenticity of the online collaborative tasks supported the online collaborative learning in enhancing English oral communication ability. The reason justified this point is that the tasks were constructed based on the principles of online collaborative learning with the use of various CMC tools. The students were driven to properly participate, collaborate, and practice their English oral communication ability through the tasks involving practicing the required discussion and attentively responding to the speaking tasks. The results also aligned with Nooijer et al. (2020), stating that providing the online collaborative tasks can support online collaborative learning because it increased students' engagement, provided positive atmosphere, and supported autonomy of learners.

Fourth, the characteristics of CMC tools also supported the online collaborative learning. Anonymity was considered as one of the characteristics of CMC tools. The results mentioned that the students had more confident to speak when they turn off their cameras. The results aligned with Chen (2005) claimed, one of the most important aspects of CMC was a reduction in anxiety compared to face-to-face speech. In addition, CMC provided learners with a fewer threatening means of communication. Learners also gained autonomy supported by independent learning environment which can lead to student-centered language learning (Huh, 2011; Pasfield, 2011).

Lastly, it should be addressed that some students had reported that they encountered difficulties at the beginning, but these problems seem to be diminished afterwards. A few students also found limitations such as unstable internet connection and electricity problems. However, students overcame the difficulties as they were encouraged to collaborate with their classmates and received support from the teacher.

To summarize, online collaborative learning could enhance students' English oral communication ability due to sufficient opportunities to learn, collaboration, and connecting with their classmates and teachers through online collaborative learning principles and tasks. In addition, online collaborative learning was reported to be an enjoyable, convenient, and helpful type of instruction.

Limitations of the study

Although the present study indicated that the students' English oral communication ability had been enhanced at a significant level after the experiment, some limitations were found.

The present study was conducted in a short period of time (nine weeks of instructions). Consequently, the time allotment could be extended to gain further results and perspectives on the effectiveness of online collaborative learning in enhancing English oral communication ability.

This study was concerned with novelty effects, an improvement in learning when a new technology is introduced. Thus, the result might be different if a study is conducted with the participants who are familiar with the technology.

Pedagogical implications

The results of the present study could suggest some pedagogical implications as follows:

1) CMC tools for online collaborative learning

The first pedagogical implication is the advantage of CMC tools for online collaborative learning. To conduct the online class, the use of the internet could be advantageous. The internet offers various CMC tools, especially for education. In this study, a videoconferencing application, Zoom meeting, was selected as the CMC tool. In this application, the breakout room function helped teachers to break the meeting room into separate rooms that contained two or more students. It would benefit online collaborative learning group activities. Students can have discussions via microphone and video camera or chatting in a chatbox. In addition, they can share their computer screen with their groupmates. The teacher can also observe and help students whenever they request help. Another CMC tool that most Thai students were familiar with is Google Classroom. This study used Google Classroom to discuss and make an announcement with the students. Moreover, teachers can create a post in Google Classroom for any preparations before class or assign homework. The important point is the teachers and students need to be familiar with CMC tools. Thus, this study provided a thirty-minute CMC tools tutorial before class.

2) Material preparation for online learning

To prepare materials for online learning, apart from using PowerPoint Slides and textbooks, this study selected various online materials which were suitable for lower secondary students. Firstly, Quizlet.com, a free website providing learning tools for students, was chosen to help students learn new vocabulary through flashcards, live

games, or practice tests. This tool could be used before the speaking activity or to activate the vocabulary knowledge. Secondly, Zepeto application, a social media application that lets users create their own 3D character, could help the activity to be more interesting. By using this tool, students can create their own avatar, dress in their own styles, and take a photo or video with their friends' avatar. It could be attractive to create online collaborative learning activities about clothes, gestures, or feelings.

3) Speaking activities based on learning principles

Speaking activities could be designed appropriately based on online collaborative learning principles, including idea generating, idea organizing, and intellectual convergence. Apart from activities conducted during the implementation, there are also other interesting online collaborative learning activities that can be designed under these principles. For instance, based on intellectual convergence, which means to construct a piece of work, the activities might include Debate, Note-taking Pairs, Fishbowl, Jigsaw, or Test-Taking teams, etc. via CMC tools or other social media tools (Barkley et al., 2014).

Recommendations for further study

First, it was recommended to have the orientation on online collaborative learning principles and the use of online tools before starting the class.

Second, this study implemented online collaborative learning to enhance English oral communication ability. Future research should explore whether online collaborative learning would be suitable for other communication aspects such as written communication.

Third, the participants of this study were lower secondary level students. It was recommended to conduct a study with other levels of participants to explore the effectiveness of online collaborative learning with different groups of learners.

Lastly, further study should investigate the effect of online collaborative learning on English speaking skills with ESP or EOP context.



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Appendix A: Sample of a lesson plan

Week: 4 **Unit:** 2 Clothes

Lesson: 3 Describing Clothes

Time Allocation: 90 minutes

Learning outcome: Students will be able to speak appropriately to describe clothes.

Learning Standard: Standard FL1.3: Ability to present data, information, concepts and views about various matters through speaking

CMC tools: Zoom meeting, Google classroom, Quizlet.com, Zepeto application

Time (minutes)	OCL principle	Teacher	Students	Material
10	Warm-up	<ul style="list-style-type: none"> ▪ Greet students ▪ Shows different pictures about clothes and asks question to activate background knowledge <p><u>Example of questions</u></p> <p>“Do you know what I am wearing right now?”</p> <p>“Do you know any vocabulary about clothes?”</p>	<ul style="list-style-type: none"> ▪ Greet teacher ▪ Listen and share possible answers to the class 	<ul style="list-style-type: none"> ▪ PowerPoint Slides
30		<ul style="list-style-type: none"> ▪ Introduces topic of the lesson ▪ Presents and explains vocabulary for describing clothes and order of adjectives 	<ul style="list-style-type: none"> ▪ Listen to teacher and may ask some questions 	<ul style="list-style-type: none"> ▪ PowerPoint Slides ▪ Quizlet.com

		<ul style="list-style-type: none"> ▪ Provides example sentences for describing clothes and explains the structure of the sentence ▪ Provides useful phrases to use when it isn't possible to give an exact description and explains the structure of the sentence ▪ Provides a 5-minute exercise on Quizlet and explain the instructions ▪ Asks students to do the vocabulary exercise on Quizlet 	<ul style="list-style-type: none"> ▪ Do the exercise on Quizlet 	
5		<p><u>Whole Group Activity</u></p> <ul style="list-style-type: none"> ▪ Explains the direction to students as follows, “We are going to do a short talk activity. From the last lesson, as I assigned you to download Zepeto application and create your own avatar. I will divide you into a group of five. After that, create your own photos 	<p><u>Whole Group Activity</u></p> <ul style="list-style-type: none"> ▪ Listen to the direction and may ask some questions 	<ul style="list-style-type: none"> ▪ PowerPoint Slides

		<p>with your groupmates in Zepeto then upload to Google classroom.”</p> <p>“In this activity, every group will create your own short talk for describing your groupmates’ clothes.”</p> <p>“I will give you 20 minutes to work with your group. You can help each other to prepare the script which will be used in the activity.”</p> <p>“The short talk will take 2-3 minutes for each group.”</p> <p>“You can also add the phrases we’ve learn today into your script.”</p> <p>“After 20 minutes, we will meet at the main session again and start the presentation.”</p> <p>“At the end of the activity, you are going to give feedback to your group members.”</p> <ul style="list-style-type: none"> ▪ Explains the group’s responsibilities 		
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		<ol style="list-style-type: none"> 1. Make sure that all members of the group understand the task 2. Every member of the group must have a chance to speak in the short talk. 3. All members have to help each other to complete the task on time. <ul style="list-style-type: none"> ▪ Explains individual's responsibilities <ol style="list-style-type: none"> 1. Each student must respect on others' opinion 2. In a group, all members are important, so you have the responsibility to help your groupmates complete the task. <ul style="list-style-type: none"> ▪ Creates a breakout room for each group 		
5	Idea generating Idea organizing	<ul style="list-style-type: none"> ▪ Visits all breakout rooms to observe and help the students 	<ul style="list-style-type: none"> ▪ Join breakout rooms ▪ Share their ideas about what they have 	

			<p>learned in the lesson</p> <ul style="list-style-type: none"> ▪ Discuss to their groupmates and make sure that everyone in the group understand the task ▪ May ask the teacher some questions 	
15	Intellectual convergence	<ul style="list-style-type: none"> ▪ Visits all breakout rooms to observe and help the students 	<ul style="list-style-type: none"> ▪ Create their photos in Zepeto and upload to Google classroom ▪ Do the short talk activity by helping each other writing a script by talking or using a chatbox in Zoom ▪ Prepare to present and rehearse with 	<ul style="list-style-type: none"> ▪ Zepeto application

			<p>their groupmates</p> <ul style="list-style-type: none"> ▪ May ask the teacher some questions 	
25	Intellectual convergence	<ul style="list-style-type: none"> ▪ Ends breakout rooms, and brings the students to the main session ▪ Asks students to present the short talk ▪ Provides opportunities for each group to give a group's feedback in Google classroom after the talk ▪ Provides feedback for individuals and groups in Google classroom ▪ Provides a short summary of what they learned from this lesson and may answer the student's questions ▪ Creates a post in Google classroom and asks students prepare themselves for the next lesson. 	<ul style="list-style-type: none"> ▪ Presents their short talk and listen to other groups ▪ Give feedbacks in Google Classroom's posts ▪ Listen to teacher and may ask some questions 	<ul style="list-style-type: none"> ▪ PowerPoint Slides ▪ Google Classroom

Appendix B: Pre-test

Speaking Test

(Adapted from Cambridge A2 Key Speaking Test)

Objective: To measure oral communication ability

Time: 8-12 minutes

Part 1 (3-4 minutes)

In this part, the interlocutor will ask some questions to both candidates. Each candidate needs to answer the questions.

Phase 1

Interlocutor

To both candidates

Good morning/afternoon/evening.
I'm and this is

To candidate A

What's your name?

To candidate B

And what's your name?
Thank you.

B, are you a student?
Where do you live?
Thank you.

And **A**, are you a student?
Where do you live?
Thank you.

*Phase 2***Interlocutor**

Now, let's talk about **friends**.

A, how often do you see your friends?

What do you like doing with your friends?

B, where do your friends live?

Where do you see your friends?

Back-up prompts

Do you see your friends every day?

Do you like going to the cinema?

Do your friends live near you?

Do you see your friends at weekends?

Extended Response

Now A, please tell me something about one of your friends.

Back-up questions

Do you like your friend?

Where did you meet your friend?

Did you see your friends last weekend?

Interlocutor

Now, let's talk about **home**.

B, who do you live with?

How many bedrooms are there in your house/flat?

A, where do you watch TV at home?

What's your favorite room in the house?

Back-up prompts

Do you live with your family?

Are there three bedrooms in your house?

Do you watch TV in your bedroom?

Is your bedroom your favorite room?

Extended Response

Now B, please tell me something about the things you like doing at home, at the weekends.

Back-up questions

Do you like cooking at the weekends?

Do you play computer games at the weekends?

What did you do at home, last weekends?

Part 2 (5-6 minutes)

In this part, the interlocutor will show some photographs to both candidates and ask them questions. Both candidates need to talk together to answer the question for about three or four minutes.

*Phase 1***Interlocutor**

Now, in this part of the test you're going to talk together

Here are some pictures that show **different places to eat**. (*Show photographs to the candidates*).

Do you like these different places to eat? Say why or why not. I'll say that again.

Do you like these different places to eat? Say why or why not.

All right? Now, talk together.

Candidates will use approximately 1-2 minutes to answer the question.

**Interlocutor /
Candidates**

Use as appropriate. Ask each candidate at least one question.

Do you think...

...eating on the beach is fun?

...eating in restaurants is expensive?

...eating at home is boring?

...eating at school is cheap?

...eating in the park is nice?

Optional prompt
Why?/Why not?

What do **you** think?

Interlocutor

So, A, which of these places to eat do you like best?

And you, B, which of these places do you like best?

Thank you.

*Phase 2***Interlocutor**

Now, would you like to eat with friends or family, **B**? (Why?)

And what about you, **A**? (Do you prefer eating with friends or family?)
(Why?)

Would you like to eat at home or in a restaurant, **A**? (Why?)

And you, **B** (Would you like to eat at home or in a restaurant?) (Why?)

Thank you. That is the end of the test.

Do you like these different places to eat?



Appendix C: Post-test

Speaking Test

(Adapted from Cambridge A2 Key Speaking Test)

Objective: To measure oral communication ability

Time: 8-12 minutes

Part 1 (3-4 minutes)

In this part, the interlocutor will ask some questions to both candidates. Each candidate needs to answer the questions.

Phase 1

Interlocutor

To both candidates

Good morning/afternoon/evening.
I'm and this is

To candidate A

What's your name?

To candidate B

And what's your name?
Thank you.

B, Are you a student?
Do you live in... (name of district/town etc.)?
Thank you.

And **A**, Are you a student?
Do you live in... (name of district/town etc.)?
Thank you.

*Phase 2***Interlocutor**

Now, let's talk about **music**.

A, how often do you listen to music?

What music do you like best?

B, what is your favorite music instrument?

Where do you like listening to music?

Back-up prompts

Do you listen to music every day?

Do you like rock music?

Do you like the piano?

Do you like going to concerts?

Extended Response

Now A, please tell me something about your favorite singer or group?

Back-up questions

Where is your favorite singer from?

Why do you like them?

Do your friends like them too?

Interlocutor

Now, let's talk about **shopping**.

B, where do you like to go shopping?

What do you like to buy with your money?

A, who do you like to go shopping with?

What can you buy near your house?

Back-up prompts

Do you like to go to shopping centers?

Do you like to buy clothes with your money?

Do you like to go shopping with your friends?

Can you buy food near your house?

Extended Response

Now B, please tell me something about presents you buy for your friends.

Back-up questions

Where do you buy presents?

Do you like giving presents?

Have you bought a present recently?

Part 2 (5-6 minutes)

In this part, the interlocutor will show some pictures to both candidates and ask them questions. Both candidates need to talk together to answer the question for about three or four minutes.

*Phase 1***Interlocutor**

Now, in this part of the test you're going to talk together.

Here are some pictures that show **different holidays**. (*Show pictures to the candidates*).

Do you like these different holidays? Say why or why not. I'll say that again.

Do you like these different holidays? Say why or why not.

All right? Now, talk together.

Candidates will use approximately 1-2 minutes to answer the question.

**Interlocutor /
Candidates**

Use as appropriate. Ask each candidate at least one question.

Do you think...

...beach holidays are fun?

...city holidays are interesting?

...camping holidays are exciting?

...walking holidays are expensive?

...holidays in the mountain are boring?

*Optional prompt
Why?/Why not?*

What do **you** think?

Interlocutor

So, A, which of these holidays do you like best?

And you, B, which of these holidays do you like best?

Thank you.

*Phase 2***Interlocutor**

Now, do you prefer to go on holidays with friends or with your family, **B**? (Why?)

And what about you, **A**? (Do you prefer to go on holidays with friends or with your family?) (Why?)

Which country would you like to visit in the future, **A**? (Why?)

And you, **B** (Which country would you like to visit in the future?) (Why?)

Thank you. That is the end of the test.

Do you like these different holidays?



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**Appendix D: holistic rubric score for assessing English oral
communication ability**

A2	Grammar and Vocabulary	Pronunciation	Interactive Communication
5	<ul style="list-style-type: none"> Shows a good degree of control of simple grammatical forms. Uses a range of appropriate vocabulary when talking about everyday situations. 	<ul style="list-style-type: none"> Is mostly intelligible, and has some control of phonological features at both utterance and word levels. 	<ul style="list-style-type: none"> Maintains simple exchanges. Requires very little prompting and support.
4	<i>Performance shares features of Bands 3 and 5.</i>		
3	<ul style="list-style-type: none"> Shows sufficient control of simple grammatical forms. Uses appropriate vocabulary to talk about everyday situations. 	<ul style="list-style-type: none"> Is mostly intelligible, despite limited control of phonological features. 	<ul style="list-style-type: none"> Maintains simple exchanges, despite some difficulty. Requires prompting and support.
2	<i>Performance shares features of Bands 1 and 3.</i>		
1	<ul style="list-style-type: none"> Shows only limited control of a few grammatical forms. Uses a vocabulary of isolated words and phrases. 	<ul style="list-style-type: none"> Has very limited control of phonological features and is often unintelligible. 	<ul style="list-style-type: none"> Has considerable difficulty maintaining simple exchanges. Requires additional prompting and support.
0	<i>Performance below Band 1.</i>		



Appendix E: Semi-structured Interview Questions

1. How do you feel about learning English speaking using online collaborative learning?

นักเรียนรู้สึกอย่างไรกับการเรียนการพูดภาษาอังกฤษโดยวิธีการเรียนรู้ร่วมกันในลักษณะออนไลน์

2. What are the benefits of learning English speaking using online collaborative learning?

นักเรียนคิดว่าอะไรคือประโยชน์ของการเรียนการพูดภาษาอังกฤษโดยวิธีการเรียนรู้ร่วมกันในลักษณะออนไลน์

3. What are the problems or the difficulties of learning English speaking using online collaborative learning?

นักเรียนคิดว่าอะไรคือปัญหาหรือความยากลำบากของการเรียนการพูดภาษาอังกฤษโดยวิธีการเรียนรู้ร่วมกันในลักษณะออนไลน์

Appendix F: List of Experts

1. Experts validating pre-test and post-test

1.1 Assistant Professor Chansongklod Gajasen, Ph.D.

Faculty of Education, Chulalongkorn University

1.2 Tirote Thongnuan

Faculty of Humanities, Kasetsart University

1.3 Siriporn Lerdpaisalwong, Ph.D.

Faculty of Humanities, Kasetsart University

2. Experts validating lesson plans, holistic rubric, and interview questions

2.1 Parichart Phootirat, Ph.D.

Faculty of Humanities, Kasetsart University

2.2 Tirote Thongnuan

Faculty of Humanities, Kasetsart University

2.3 Siriporn Lerdpaisalwong, Ph.D.

Faculty of Humanities, Kasetsart University

Appendix G: Lesson Plan Evaluation Form

Guideline for evaluation

Please put a tick (✓) in the rating box (+1, 0, -1) in order to identify the appropriateness in your opinion. Please also specify comments for each item for further adjustment and improvement.

+1	means	Appropriate
0	means	Not sure
-1	means	Inappropriate

Topics	Level			Comments and suggestions
	+1	0	-1	
Appropriate task				
1. The task allows for English oral communication ability in grammatical and lexical knowledge, pronunciation, discourse organization, and interaction assessment				
2. The task is user-friendly				
Teaching steps and principle				
3. The teaching steps clearly reflect concepts of Online Collaborative Learning principle which are idea generating, idea organizing, and intellectual convergence				
Instruction				
4. The instruction is unambiguous				
Content				
5. The content is appropriate to secondary students				
Timing				
6. Time allocation is appropriate to the lesson				
Materials				

7. Materials are appropriate to the lesson				
--	--	--	--	--

Comments:

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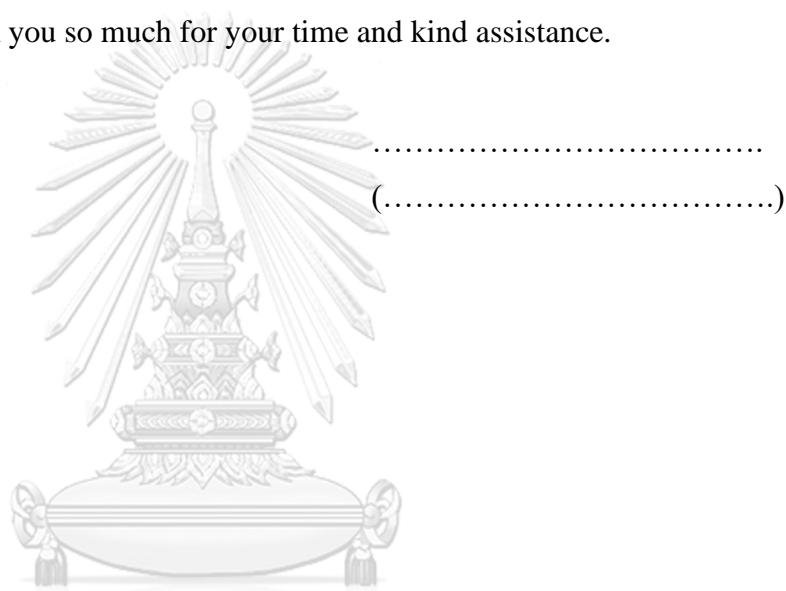
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Thank you so much for your time and kind assistance.



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Appendix H: Holistic Rubric Evaluation Form

Guideline for evaluation

Please put a tick (✓) in the rating box (+1, 0, -1) in order to identify the appropriateness in your opinion. Please also specify comments for each item for further adjustment and improvement.

+1	means	Appropriate
0	means	Not sure
-1	means	Inappropriate

Topics	Level			Comments and suggestions
	+1	0	-1	
Criteria				
1. The criteria is compatible to evaluate English oral communication ability in grammatical and lexical knowledge, pronunciation, discourse organization, and interaction assessment				
Assessment Scales				
2. The assessment scales are appropriate with secondary students				

Comments:

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Thank you so much for your time and kind assistance.

.....
(.....)

Appendix I: Pre-test and Post-test Evaluation Form

Guideline for evaluation

Please put a tick (✓) in the rating box (+1, 0, -1) in order to identify the appropriateness in your opinion. Please also specify comments for each item for further adjustment and improvement.

+1	means	Appropriate
0	means	Not sure
-1	means	Inappropriate

Topics	Level			Comments and suggestions
	+1	0	-1	
Appropriate task				
1. The task allows for English oral communication ability in grammatical and lexical knowledge, pronunciation, discourse organization, and interaction assessment				
Quality of questions				
2. The questions allow for English oral communication ability in grammatical and lexical knowledge, pronunciation, discourse organization, and interaction assessment				

Comments:

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Thank you so much for your time and kind assistance.

.....

(.....)

Appendix J: Interview Question Evaluation Form

Guideline for evaluation

Please put a tick (✓) in the rating box (+1, 0, -1) in order to identify the appropriateness in your opinion. Please also specify comments for each item for further adjustment and improvement.

+1 means Appropriate
 0 means Not sure
 -1 means Inappropriate

No.	Questions	Level			Comments and suggestions
		+1	0	-1	
1.	How do you feel about learning English speaking using online collaborative learning?				
2.	What are the benefits of learning English speaking using online collaborative learning?				
3.	What are the problems or the difficulties of learning English speaking using online collaborative learning?				

Comments:

.....

Thank you so much for your time and kind assistance.

.....
 (.....)

VITA

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