IMPROVING READING COMPREHENSION OF EFL STUDENTS USING THE JIGSAW TECHNIQUE
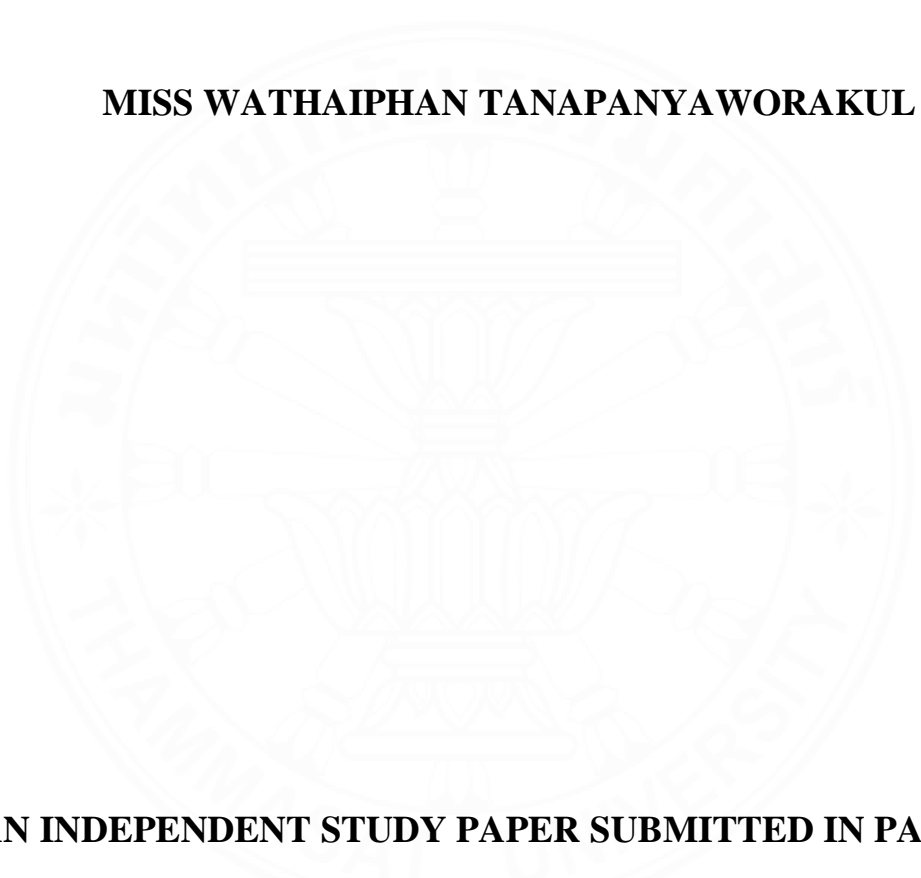
BY

MISS WATHAIPHAN TANAPANYAWORAKUL

AN INDEPENDENT STUDY PAPER SUBMITTED IN PARTIAL
FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF ARTS IN CAREER ENGLISH FOR
INTERNATIONAL COMMUNICATION
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ENTITLED

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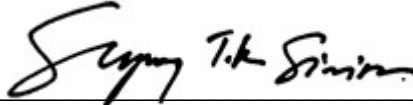
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Independent Study Paper Title IMPROVING READING COMPREHENSION OF EFL STUDENTS USING THE JIGSAW TECHNIQUE

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ABSTRACT

This study aimed to investigate whether the jigsaw technique can improve beginner EFL students reading comprehension and the students' perceptions towards using the jigsaw technique in the classroom. A total of sixteen grade nine (Mattayom 3) students who were studying fundamental English in the second semester of academic year 2020 at a public school in Bangkok, Thailand participated in the study. The participants learned through the jigsaw reading activities five times. A reading comprehension pretest and posttest was used as the main instrument to determine whether the jigsaw technique can improve beginner EFL students' reading comprehension. Additionally, the IMI questionnaire was used to examine students' perceptions towards the use of the jigsaw technique in the classroom. The pre-test and post-test scores, together with the data derived from the IMI questionnaire, were analyzed by calculating descriptive statistics. The findings revealed that the jigsaw technique can help improve beginner EFL students' reading comprehension, and the students perceived the jigsaw technique positively after experiencing the jigsaw reading classes.

Keywords: Jigsaw technique, reading comprehension

ACKNOWLEDGEMENTS

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CHAPTER 1
INTRODUCTION

1.1 Background of the Study

English language has played an important role in many fields as people use it to communicate all over the world. There are several advantages of learning English, for instance, being able to travel around the world, being able to adjust to cultural differences, and being able to widen job opportunities (Mahu, 2012). As English provides many benefits, EFL learners from many countries tend to grow continuously (Beare, 2019). Basically, there are four main skills of learning English language which are listening, speaking, reading, and writing. This study will focus mainly on reading skill since the writer aims to improve students' reading comprehension.

Reading is important as it provides several advantages, namely building vocabulary, stimulating the imagination, and widening the experiences of readers (Keyser, 2015). To achieve the aforementioned benefits, reading comprehension skill is required so that the readers can conclude, interpret, or analyze written texts (Nurjanah, 2018). However, there are various difficulties that many students including Thai EFL students encounter in reading comprehension. To illustrate, students are unable to comprehend assigned texts due to the lack of vital vocabulary and proper reading techniques (Nor & Rashid, 2018, as cited in Jarrah & Ismail, 2018). Consequently, students seem to be uninterested in reading class as they do not understand what they read and do not have motivation to read.

As a teacher, it is necessary to create effective lessons which enhance students' reading comprehension skill. There are many studies that suggest using the cooperative language learning method. Bayraktar (2011, as cited in Kazemi, 2012), for example, stated that the cooperative learning method allows students to work as a team to improve their skills through communicating, critical thinking, and problem solving. In addition, corporative learning helps promote students' learning performance and motivation (Nurbianta & Dahlia, 2018). The jigsaw technique is one of the cooperative teaching methods which has been widely used to teach reading comprehension. This technique is beneficial to teaching reading in class because the

students are able to help each other complete the assigned text. It also allows peer teaching in which students can exchange thoughts or information, and it can brighten up the classroom environment (Kardaleska, 2013).

Although many studies have used the jigsaw technique to improve reading comprehension, the writer wanted to find out whether the technique can enable low reading proficiency students to comprehend texts better and how the students perceive the jigsaw technique employed in the reading class.

1.2 Research Questions

1. Can the jigsaw technique improve beginner EFL students' reading comprehension?
2. What are the students' perceptions towards using the jigsaw technique in the classroom?

1.3 Research Objectives

1. To examine whether the jigsaw technique can improve beginner EFL students' reading comprehension.
2. To investigate the students' perceptions towards using the jigsaw technique in the classroom.

1.4 Scope of the Study

The participants in this study were 16 grade nine (Mattayom 3) students who were studying fundamental English in semester 2 in a public school in Thailand in academic year 2020. The participants were selected by convenience sampling and had not experienced learning through the jigsaw activity before.

1.5 Significance of the Study

This study may be beneficial for the students as they have a chance to participate in different activities, which in this case is the jigsaw reading activity rather than learning through only traditional methods. Moreover, this study is likely to enable students to seek appropriate learning styles especially in reading class, whether they prefer to learn by doing through group activities or to learn by themselves. As a

teacher, the findings of this study may be beneficial for teachers who need to improve students' reading ability and also need to provide effective learning activities that are suitable and encouraging for students.

1.6 Definition of Terms

Reading comprehension refers to students' abilities to comprehend texts in terms of reading for main ideas and reading for details, which are literal levels of comprehension.

Jigsaw technique refers to a cooperative learning method in which students are assigned to work in small groups to complete various tasks. During the assigned work, they share and discuss what they have learned with peers.

Beginner EFL students refers to the group of grade nine (Mattayom 3) students who were studying in a Thai public school in Bangkok, Thailand and whose reading proficiencies were low.

1.7 Limitations of the Study

This study aimed to examine the effects of the jigsaw technique on students' reading comprehension; however, it is limited to the literal levels of reading comprehension including reading for main ideas and reading for details. This is because the participants in the study were considered beginners whose reading proficiencies were low.

CHAPTER 2
LITERATURE REVIEW

This chapter explores the literature related to the study on the use of the jigsaw technique to improve EFL learners' reading comprehension. The chapter consists of four main sections. First, section 2.1 shows the definition and level of reading comprehension. Second, section 2.2 presents the concept of cooperative learning strategy: jigsaw technique. Then, section 2.3 illustrates advantages and challenges of using the jigsaw technique in the classroom. Finally, the chapter ends with section 2.4 which explores previous related studies.

2.1 Reading Comprehension

Badrawi and Hassan (1994) define reading comprehension as the process in which readers read in order to understand, interpret and evaluate a text. However, the readers need to have enough vocabulary and knowledge about word or sentence arrangement in order to comprehend any text. Moreover, the readers should have some background knowledge of the content (Badrawi, 1994; Hassan, 1994 cited in Kardaleska, 2013). Babayiğit and Stainthorp (2011) agree with Badrawi and Hassan that readers' background knowledge and language skills are necessary for reading comprehension (Babayiğit & Stainthorp, 2011, cited in McKee, 2012). Apart from background knowledge and language skills, the readers are able to understand a text better if they employ proper reading strategies together with having the motivation to read (Prom-d, 2012). To conclude, reading comprehension is the process in which readers make use of their language skills and their experiences to comprehend the text they read. Choosing the right reading strategies and having the motivation to read promote readers' reading comprehension skill.

Scholars have categorized reading comprehension into different levels. According to Barrett Taxonomy (1974), there are three levels of understanding in reading comprehension: literal, inferential, and evaluative level. Readers have to be able to answer the literal level questions in the text first before they can move on to inferential and evaluative level questions (Cooter et al., 1984). In accordance with

Barrett's taxonomy, Basaraba et al. (2013) proposed that readers must be able to achieve a literal understanding before they can progress to inferential and evaluative understandings. The readers should work on these three levels of comprehension step by step starting from literal, inferential, and evaluative level respectively. Each level of reading comprehension is described as follows (Basaraba et al., 2013):

Literal Comprehension

At the literal level, the information which the readers want to find is clearly written in the text. To be more specific, the readers are usually assigned to look for the main idea, supporting details, or facts in the text. In addition, they can be asked to summarize or organize the sequences in a text. Examples of literal questions are as follows:

- Who wrote the book?

- What happened first, second and last?

- What is the name of the main character?

Inferential Comprehension

At the inferential level, readers are required to comprehend and interpret the information to answer questions; however, the answers are not clearly shown in the text. To illustrate, the readers are asked to read the text and then interpret the meaning of the information in order to conclude, predict, or generalize from the text. At this level, the readers may also rely on their personal experiences in order to answer the questions. Examples of inferential questions are as follows:

- What does the author value?

- What is the theme of this story?

- How do you think the story will end?

Evaluative Comprehension

At the evaluative level, readers not only try to understand the text but also have to be able to judge and evaluate the text critically. To be more specific, readers need to make use of their life experiences and extra knowledge outside the text as tools that enable them to differentiate facts from opinions, make suggestions, express thoughts, etc. Examples of evaluative questions are as follows:

- Is this a fact or opinion?

- Do you agree with the author?

- What is the best solution for this problem?

In this study, the writer aimed to focus only on reading comprehension at the literal level due to students' low reading proficiency in English. Therefore, only reading for the main idea and reading for details were included in the jigsaw activity implemented in the study.

2.2 Cooperative Learning Strategy: Jigsaw technique

Cooperative learning is a learning strategy in which teachers divide students into small groups to help each other learn and complete the tasks (Johnson et al., 1991). According to Robert Slavin's theory, each group should consist of a mix of students whose learning abilities are different from one another so that they can help each other and work collaboratively instead of individually (Nurbianta & Dahlia, 2018). John and Johnson (2008) add that a group consisting of 2-4 members is considered as the most effective size. Each student should have different skills so they have to seek knowledge or information from others. There are several advantages of using cooperative learning in the classroom. To illustrate, students' cognitive ability is developed as most of the tasks in cooperative activities require problem-solving skills. In addition, their social skills also improve during a cooperative lesson since they have to exchange information with their group members (Johnson & Johnson, 1981; Madden & Slavin, 1983; Slavin, 1984 cited in Kostons, 2019). Some studies have also claimed that cooperative learning promotes students' self-esteem and prompts them to participate in class more (Chavangklang, 2017).

The jigsaw technique is one of the cooperative learning strategies. It was first introduced by Aronson in 1971 and has been used for instruction in cooperative classrooms worldwide (Garcia, Abrego & Robert, 2017). The jigsaw technique has been employed in several learning activities in various subjects. To process the activity, students are formed into groups. Then, tasks divided into different sections are specifically given to each student in the group. After students receive their own sections, they move to join the new group which includes students who get the same sections. Each of them has to comprehend the assigned sections before moving back to the former group to teach, share, and discuss what they have learned with their group (Gocer, 2010). In fact, the jigsaw technique had been modified several times in

order to correspond to the specific teaching objectives as much as possible. For instance, jigsaw II was proposed by Slavin in 1978 and it differs from the original jigsaw in the way that the students have to complete extra worksheets and be assessed individually at the end of the activity. Another example is jigsaw IV which was presented by Holliday in 2002. In jigsaw IV, a lot of activities such as teacher's explanations, expert group quizzes, and individual assessment review were added (Mingdao & Xiaoling, 2010). Aronson (1971, as cited in Garcia, Abrego & Robert, 2017) claims that classrooms that organize jigsaw activities promote a learning environment in which students help each other to learn, while traditional teaching methods create a competitive learning environment where each student learns individually (Vu, 2019).

According to the Institute for Teaching and Learning Innovation (2017), there are some basic steps for using the jigsaw technique in the classroom. Each step can be described as follows:

1. Divide students into groups and inform them that this is their home group.
2. Assign each student in the home group a different number or segment of tasks.
3. Let the students leave their home group and find those who get the same number or same segment of tasks and then sit together; this is their expert group.
4. Assign each expert group to discuss the task according to the directions and then make sure that everyone gets and can explain the ideas.
5. Ask students to come back to their home group then take turns explaining the tasks they are responsible for.
6. Encourage each home group to put the ideas of each segment together and try to complete the assigned tasks.

2.3 Advantages and Challenges of Using the Jigsaw Technique in the Classroom

Adams (2013) mentioned several advantages of using the jigsaw technique in classrooms. According to the research, the jigsaw technique is an effective strategy which allows students to be involved and to be a part of learning activities. To be more specific, students improve their skills through jigsaw activities by completing

the assigned tasks both individually and cooperatively while teachers act as the facilitator. Accordingly, students tend to put more effort into achieving the goals, and they are likely to be more active in their interaction with their classmates.

In accordance with Adams, Garcia et al. (2017) assert that jigsaw activities improve students' academic skills since they are required to understand the assigned tasks deeply in order that they can explain the ideas to others. When their academic skills are improved, they become more confident and more active in communicating their thoughts and ideas. As they have to exchange ideas with others more often, they learn how to converse and listen to others carefully. Consequently, their social skills are improved as well. It is also found that students pay attention to participating in the activities more during jigsaw activities as they realize that they are a part of a group. Robbani (2017) agrees that students are encouraged to participate in class more when learning through jigsaw activities. In this case, they have to cooperate with their classmates in order to share or discuss the content together rather than working alone. Due to the researcher, the jigsaw technique can help promote critical thinking as well. That is because students have to analyze, synthesize and evaluate the assigned sections in order to complete the whole tasks. In addition, they also have to think critically about whether the information they have got or discussed is true or not. Besides enhancing cooperation and thinking skills, the jigsaw technique also promotes equal participation as everyone has to express their ideas individually. Moreover, the jigsaw activity helps teachers save time since each student does not have to complete the whole task alone but is instead responsible for their assigned sections (Shume, Stander & Grier, 2016).

Though there are numerous benefits, the jigsaw technique seems to pose some challenges as well. One of the concerns is that a teacher has to assign tasks that are appropriate for the level of the learners. If the tasks are not challenging enough and each student can complete it on their own, they may not consider it group work and instead work by themselves. As a result, they end up working separately. In addition, the tasks should be divided to each student equally so that the tasks are not overloaded on one person (Karacop & Diken, 2017). Another concern is that teachers should be able to control and lead the whole class effectively in order to keep the students focus on the assigned tasks instead of talking to each other. Furthermore, teachers also have

to be able to encourage each student to be responsible for his or her own reading section and motivate them to interact with their peers, especially during the discussion section (Robbani, 2017).

All in all, the jigsaw activity provides various advantages in terms of improving students' reading comprehension and encouraging students to learn both individually and collaboratively. As the literature in this chapter shows, although the jigsaw activity promotes student-centered learning, teachers still play an important role as facilitators who carefully observe the students during each task (Betaria, 2012). Because of this, one of the challenges of implementing the jigsaw activity is encouraging and motivating every student to take part in and complete every step of the jigsaw activity.

2.4 Previous Related Studies

There are several studies related to improving reading comprehension through the jigsaw technique. Kazemi (2012) conducted a study to examine the effects of the jigsaw teaching method on Iranian EFL learners' reading comprehension achievement. The participants in this study were thirty-eight native Persian EFL students whose TOEFL test scores were at the intermediate level and who never went to counties that communicate through English. The researcher utilized a one-group pretest-posttest design. In this case, the experimental group was taught by the jigsaw technique emphasizing reading comprehension. After the experimental group participated in the class for ten sessions, the results showed that their post-test scores were significantly higher than their pre-test scores. The writer noted that the jigsaw strategy prompts students to interact with their classmates more and have an opportunity to learn by doing instead of only listening to teachers. However, the students should be well-prepared so that they are able to communicate with others using English.

Prom-d (2012) carried out research to investigate the effect of jigsaw technique II on students' reading comprehension. The reading skills focused on were reading for the main idea, reading for detail, drawing inferences, and identifying fact and opinion. The participants were twenty-five students who were studying in grade seven in Thailand. According to the research, the students participated in a jigsaw

reading class for eight sessions before taking the posttest. Students' pretest and posttest scores were analyzed, and the results showed that the mean scores of reading for the main idea, reading for detail, drawing inferences, and identifying fact and opinion were all higher. The researcher concluded that students' mean scores were significantly higher at the .05 level after using the jigsaw II teaching strategy. To be specific, the achievement on reading for the main idea and reading for detail were higher at a significant level, while the achievement on reading for detail and identifying fact and opinion were higher but not significantly. According to the results, the researcher commented that the jigsaw technique could enhance all sub-skills in reading comprehension including reading for the main idea, reading for detail, drawing inferences, and identifying fact and opinion; however, the achievement seemed to be just slightly improved due to the limitation of vocabulary. The researcher also explored the participants' attitudes towards the jigsaw technique and found that it increased students' interest in reading classes, and they were more willing to join the learning activities.

Nurbianta and Dahlia (2018) applied the jigsaw method to thirty students who were selected from one hundred students in seven grade of SMPN 13 Berau by the random sampling technique in order to improve their reading comprehension. The researcher employed a one-group pretest-posttest design to examine the research question regarding the effect of the jigsaw technique on students' reading comprehension. The findings presented that the post-test scores were slightly higher after the students were taught using the jigsaw method. Although students' achievement was, to some extent, different in term of scores, the researcher added that the students appeared to cooperate in the class more actively and solve problems more effectively. In this case, the lower proficiency students were encouraged and motivated, while the higher proficiency students contented and were willing to participate in the activity repeatedly. In addition, most students agreed that the jigsaw technique allows them to share and discuss with their classmates more. Accordingly, their social skills also improved.

Abed (2019) also investigated how to improve students' reading comprehension by conducting the research on the implement of the jigsaw technique as a cooperative learning strategy. The quasi-experimental method was utilized in this

study. The participants were divided into a control group and an experimental group. There were twenty-five students in the control group and twenty students in the experimental group. The students in the control and experimental groups were taught using traditional and jigsaw methods respectively. Both groups were engaged in the learning activities for five weeks. The findings reported that students in the experimental group got higher scores in their posttest than those in the control group. The researcher concluded that students' reading comprehension was improved after applying the jigsaw technique. Moreover, the jigsaw class also promoted good relationships between students and brightened the classroom atmosphere. Accordingly, the researcher concluded that the jigsaw activity was beneficial for improving students' reading comprehension and motivating the students to learn.

Vu (2019) investigated the effectiveness of the jigsaw technique on Vietnamese EFL students and conducted a survey to observe students' attitudes towards using it in the classroom. The students were divided into control and experimental groups, with each group consisting of thirty students. The control group was taught by the traditional method; in contrast, the experimental group was taught by the jigsaw method. The results showed that the pre-test mean scores of the control and experimental group were slightly higher which can be assumed that students' reading comprehension abilities were not too different. However, the post-test scores of the experimental group were higher than those of the control group at a significant level. To sum up, students performed better in reading comprehension after they were taught using the jigsaw technique. In regard to the questionnaire, most students (63.3%) had positive attitudes towards the jigsaw technique for many reasons; for instance, the students found they were more engaged in the class. In conclusion, the researcher proposed that the jigsaw technique should be applied in classrooms in order to improve students' reading skills together with their social skills.

Islam (2020) carried out research to find out the effect of the jigsaw technique on reading comprehension across different learning styles. A reading comprehension test and a questionnaire asking about students' learning styles were designed and employed to grade ten students who were divided into control and experimental groups. The findings showed that the students in the experimental group who were taught by the jigsaw technique received higher post-test scores than those in the

control group who were taught by a conventional technique. Moreover, the researcher also investigated students' learning styles through the questionnaire and found that students' reading comprehension skills were improved after participating in the jigsaw activity, regardless of their learning styles. Therefore, it can be assumed that students' learning styles did not affect reading comprehension achievement. In summary, the researcher concluded that the students' reading comprehension scores increased after learning through the jigsaw technique; moreover, the technique promoted relationships between them as they had to complete the assigned tasks together.

In conclusion, many researchers have investigated the effect of the jigsaw technique on reading comprehension. Their results are in line with the idea that the jigsaw technique is a potential tool that can be used to improve students' reading comprehension and encourage students to think and share more ideas verbally with their classmates. However, teachers need to be a facilitator who prepare well-structured lessons and guide students to appropriately follow the steps so that they can perform the tasks effectively.
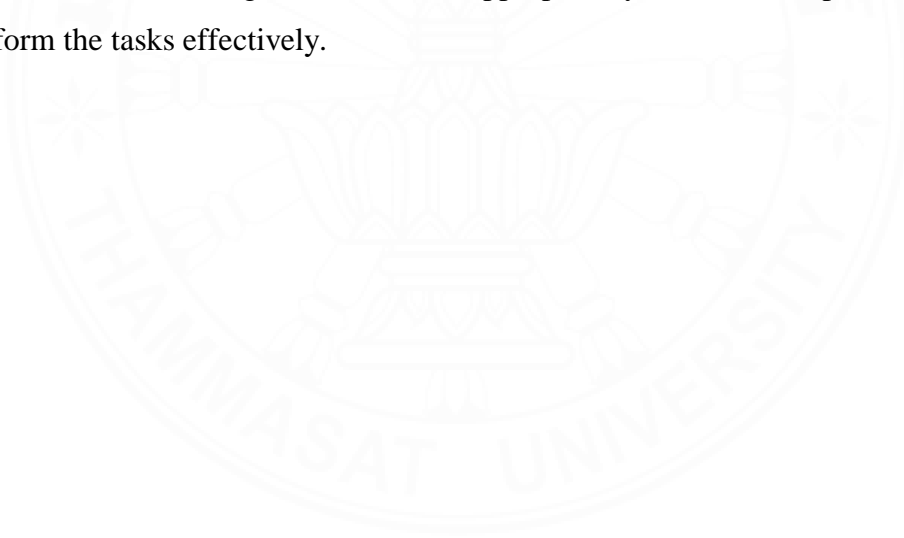
CHAPTER 3
RESEARCH METHODOLOGY

This study aimed to investigate the effect of the jigsaw technique on EFL students' reading comprehension and examine whether it motivated students to read. The research questions were proposed in Chapter One along with previous related studies in Chapter Two. This chapter provides further details on the research methodology to illustrate the process of collecting and analyzing the data. The quantitative approach was mainly used in this study as it focused on comparing students' pre-test and post-test scores and exploring their opinions towards using the jigsaw technique in class through a questionnaire. Accordingly, statistical methods were used in the study to analyze the quantitative data that was collected.

This chapter comprises six main sections. Starting with section 3.1, the research methodology is described. In section 3.2, the participants and sampling technique are discussed. Then setting is explained in section 3.3. Research instruments that are used in the study are mentioned in section 3.4, followed by how the data was collected in section 3.5. The chapter ends with presenting the statistical treatment used to analyze the data in section 3.6.

3.1 Research Methodology

Quantitative methods were used to examine two research questions in this study. One group pre-test and post-test design was used to answer the first research question: To what extent does the jigsaw technique improve EFL students' reading comprehension? To illustrate, a group of students were evaluated by taking a pretest and posttest measuring reading comprehension in order to investigate the improvement after they were taught using the jigsaw technique. Moreover, a questionnaire was used to examine the second research question: What are students' perceptions towards using the jigsaw technique in the classroom?

3.2 Participants

The participants in this study were grade 9 students who studied Fundamental English in academic year 2020 at a public school in Bangkok, Thailand. Most of the students' reading proficiency was low. Moreover, none of them had experienced learning through the jigsaw activity before. The population of the study was 75 students divided into three classes; however, the selected participants who were involved in the study were 16 students who were studying fundamental English. They were recruited through convenience sampling technique. Since it was hard to arrange time during the regular class schedules, the experimental periods had to be done after school. Considering the school context, most of the students tended to be unavailable after school as they have to do part-time jobs to earn for a living or do errands for their families. Therefore, it was impossible to involve all of them in the experimental classes. Accordingly, the researcher asked these students to volunteer to participate in the research after school. After asking for volunteers, there were sixteen students who were able to participate in the study.

3.3 Setting

Since the aim of the study was to examine the effect of the jigsaw technique on reading comprehension, the reading classes were organized by utilizing the jigsaw technique. In this study, five lesson plans were created and used in each of the five reading classes. The text that was used in each lesson plan was derived from the websites and the level of each text was A2 according to CEFR. The selected texts that the participants read in each class were as follows: 1) Study Skills Tips, 2) Madagascar – When to go, 3) Daily Routine, 4) A Letter from Emily to Her Friend and 5) Growing Up Poor. Each lesson plan consumed about 90 minutes and was divided into four main stages. Firstly, the jigsaw activity steps were introduced to the students. In this stage, the teacher asked the students to identify each step clearly in order to check whether they knew how to do the activity. Next, the teacher prompted the students to think about what they were going to read by displaying the title of the texts. After that, students participated in the jigsaw activity step by step. During this stage, the teacher walked around the room to observe students' behaviors and assist any who needed help. In essence, the students had about 20 minutes in the expert

group, 20 minutes in the home group, and another 10 minutes to complete the exercise related to the text within their group. Lastly, the teacher encouraged the students to conclude the text and reflect on the class activity.

3.4 Research Instruments

In order to investigate the research questions, there were three main research instruments that were used in this study.

1. Reading Comprehension Test

A reading comprehension test was used to evaluate students' reading comprehension skills and to compare the progress in reading comprehension after employing the jigsaw technique by looking at the pre-test and post-test scores. The reading comprehension test included texts which consisted of literal questions that focused on finding main ideas, supporting details, and facts in the texts. In addition, the reading comprehension test implicated the Common European Framework of Reference for Languages (CEFR) and the level of the test was A2, which was suitable for the basic users. The test was comprised of three reading texts together with thirty question items. The test was divided into three parts: the first part was constructed of one reading passage with true or false questions, while the second and the third parts consisted of reading passages together with multiple-choice questions.

2. Questionnaire

The questionnaire was administered to determine students' perceptions towards the use of the jigsaw technique in the reading class. The data collected from the survey was used to address the second research question, which is "What are students' perceptions towards using the jigsaw technique in the classroom?" To be more specific, the questionnaire was constructed of three main parts. The first part consisted of items related to participants' general information. The second part consisted of items asking about participants' perceptions towards the jigsaw activity. In this part, the survey items were derived and adapted from the Intrinsic Motivation Inventory (IMI), which is a device that measures how participants perceive an activity they experience. In detail, there were fifteen items and those items intended to measure participants' competence, pressure, value, relatedness and interest towards jigsaw activity. In the third part of the questionnaire, the participants were asked to

answer three open-ended questions related to their opinions after experiencing the jigsaw activity.

3.5 Procedure of Data Gathering

The study consisted of four steps as follows: To begin with, the participants took a reading comprehension pretest which lasted sixty minutes. Secondly, the participants were involved in reading classes in which the class activities were derived from the lesson plans that emphasized the use of the jigsaw technique to improve reading comprehension. In the first period, the teacher explained the jigsaw technique step by step. Then, the teacher introduced the text to the students and encouraged them to complete the reading tasks according to the jigsaw activity. After attending all the provided classes, the participants took a reading comprehension posttest that took sixty minutes. Then, the teacher asked the participants to participate in the class in the following week in order to complete the questionnaire related to their perceptions towards using the jigsaw technique in the classroom.

3.6 Data Analysis

In order to analyze the collected data, three of the statistical treatments were calculated through Microsoft Excel. To illustrate, mean ($\bar{X}$) and standard deviation (S.D) were used to analyze the pre-test and post-test scores of the reading comprehension test. Moreover, the rating scale questionnaire was analyzed by mean ($\bar{X}$) and standard deviation (S.D). In this case, the questionnaire employed a Likert scale which consisted of seven levels of agreement. In order to identify the level of perception, the criteria for analyzing were as follows:

The range of the mean	Level of Interpretation
0.00-1.50	Not true at all
1.51-2.50	Very slightly true
2.51-3.50	Slightly true
3.51-4.50	Moderately true
4.51-5.50	Quite true

In addition to the quantitative data analysis, the open-ended questions in the questionnaire were analyzed and concluded by applying the content analysis technique. To be specific, the answers from the open-ended sections were coded and grouped into themes. After that, the researcher analyzed and concluded the results by considering the emerging themes.

CHAPTER 4
FINDINGS

As mentioned in the previous chapters, this study was conducted to examine two research questions related to improving EFL students' reading comprehension using the jigsaw technique. In order to answer these research questions, the data were collected and analyzed. To illustrate, reading comprehension pre-test and post-test scores were analyzed in order to answer the first research question, investigating whether the jigsaw technique can improve EFL students' reading comprehension. Moreover, questionnaire was applied to investigate students' perceptions towards using the jigsaw technique in the classroom.

In this chapter, the findings on students' reading comprehension and their perceptions after participating in the jigsaw reading activity are displayed and discussed. The chapter is divided into two main sections. Firstly, students' reading comprehension after participating in the jigsaw reading classes is discussed in section 4.1. After that, students' perceptions towards using the jigsaw reading activity in the classroom are described in section 4.2.

4.1 Students' reading comprehension before and after participating in jigsaw reading classes

In order to investigate whether the jigsaw technique can enhance students' reading abilities, a pretest and posttest on reading comprehension were conducted to compare students' reading performance before and after experiencing the jigsaw activity. In this case, the participants took the pretest first and then participated in jigsaw reading classes for five weeks. After that, they took the posttest in order to compare whether the scores had improved or not. The pre-test and post-test results of the sixteen participants are displayed in Table 4.1.

Table 4.1 Pre-test and Post-test Results

Students	Pretest	Posttest
1	10	14
2	12	13
3	16	16
4	10	13
5	17	22
6	8	10
7	7	15
8	14	11
9	8	11
10	15	14
11	9	13
12	16	20
13	19	19
14	11	15
15	10	19
16	9	16

Table 4.1 illustrates the pre-test and post-test scores on the reading comprehension test. According to the table above, the highest scores of the pretest were 19, 17, and 16 and the lowest scores were 7, 8 and 9 respectively. For the post-test scores, the highest were 22, 20, and 19 while the lowest scores were 10, 11, and 13 respectively. As can be seen from table 4.1, the post-test scores were mostly higher than the pre-test scores; in this case, there were only two students whose post-test scores were lower than the pre-test scores.

Table 4.2 Comparison of Pre-test and Post-test Results (n=16)

Reading Comprehension	Mean	*SD*	t*
Pre-test	11.94	3.71	
Post-test	15.06	3.45	3.83

*p<.05, df=15, t=1.75

To investigate students' performance on reading comprehension after participating in the jigsaw reading activity, descriptive statistics, namely mean and standard deviation, were calculated through Microsoft Excel. Table 4.2 displays the descriptive statistics related to students' reading comprehension. The results indicated that the post-test scores had a higher mean (*M*=15.06, *SD*=3.45) than the pre-test scores (*M*=11.94, *SD*=3.71). In addition, the t-test results showed a difference between the pretest (*M*=11.94, *SD*=3.71) and posttest (*M*=15.06, *SD*=3.45) at a significant level, $t(15) = 3.83$, p<.05. Therefore, it can be concluded that the post-test scores were significantly higher than pre-test scores.

4.2 Students' perceptions towards using the jigsaw reading activity in the classroom

In addition to students' reading comprehension, this study also investigated students' perceptions towards using the jigsaw technique in the classroom by conducting a questionnaire, which all of the participants had to complete at the end of the experimental process. In this case, descriptive statistics, namely mean and standard deviation, were calculated using Microsoft Excel. The following are the results displayed according to questionnaire items divided into three main parts starting from general information, perceptions towards the jigsaw technique, and open-ended questions respectively.

To begin with, the first part reviewed general information of the participants who were involved in the study. The frequency and percentage of gender, age, English language proficiency and experience in learning through the jigsaw technique are illustrated in table 4.3.

Table 4.3 Gender, age, English language proficiency, and experience in learning through the jigsaw technique

Items	Frequency	Percentage
Gender		
Male	7	43.75
Female	9	56.25
Age		
15-16	16	100.00
17-18	0	0.00
English language proficiency		
50-59	4	25.00
60-69	5	31.25
70-79	3	18.75
81-90	4	25.00
Experience in learning through the jigsaw technique		
Yes	0	0.00
No	16	100.00

According to Table 4.3, there were sixteen participants who participated in the study and completed the questionnaire. In detail, there were seven male participants (43.75%) and nine female participants (56.25%). One hundred percentage of the participants were fifteen and sixteen years old as they were all grade nine students who studied at a public school in Bangkok, Thailand. As shown in Table 4.3, 31.25% of the participants' fundamental English scores were between 60-69 points; 25% of the participants got scores in the range of 50-59 and 81-90, and the remaining 18.75% earned 70-79 points. Moreover, none of the participants had experienced in learning through the jigsaw technique, and none of them knew how to operate the jigsaw activity.

In the second part, the perceptions of the participants towards the jigsaw technique were analyzed through the questionnaire. As mentioned in the previous

chapter, the questionnaire items in part two employed the Intrinsic Motivation Inventory (IMI), which aimed to measure participants' perceptions towards the jigsaw activity in many aspects. The following are the results of the participants' perceptions arranged in terms of items that measured competence, pressure, value, relatedness, and interest, respectively.

Table 4.4 Participants' competence after experiencing the jigsaw activity

Statement	N = 16		Level of Perception
	Mean	*SD*	
I think I am good at the jigsaw activity. (Item 1)	4.56	1.22	Quite True
I can do very well at the jigsaw activity compared to others. (Item 6)	4.38	1.41	Moderately true
I am satisfied with my performance during the jigsaw activity. (Item 11)	4.94	1.52	Quite True
Total	4.63	1.38	

According to IMI, the competence of the participants can be measured through questionnaire item one, item six, and item eleven respectively. As shown in Table 4.4, the participants thought they were good at the jigsaw activity with the mean of 4.56. Compared to their classmates, the participants believed they could do better at the jigsaw activity at the mean of 4.38. Besides, the results showed that the participants were satisfied with their performance during the jigsaw activity at the mean of 4.94.

Table 4.5 Participants' pressure after experiencing jigsaw activity

Statement	N = 16		Level of Perception
	Mean	*SD*	
I felt stressed while doing the tasks in the jigsaw activity. (Item 2)	2.81	1.01	Slightly true
I felt worried about the assigned task in the jigsaw activity. (Item 7)	3.25	1.60	Slightly true
I felt nervous when I have to share my thoughts with the group. (Item 12)	2.81	1.74	Slightly true
Total	2.96	1.45	

In order to measure participants' pressure after experiencing the jigsaw activity, questionnaire item two, item seven, and item twelve were analyzed. The results from Table 4.5 indicated that the participants were stressed during the tasks in the jigsaw activity and felt nervous when sharing their thoughts with the group at the mean of 2.81. Some of the participants were also worried about the assigned tasks of the jigsaw activity at the mean of 3.25.

Table 4.6 Participants' value after experiencing the jigsaw activity

Statement	N = 16		Level of Perception
	Mean	*SD*	
I believe the jigsaw activity is beneficial for me. (Item 3)	5.00	1.32	Quite True
I think the jigsaw activity helps improve my reading comprehension. (Item 8)	5.19	1.51	Quite True
I would be willing to participate in the jigsaw activity again. (Item 13)	4.88	2.09	Quite True
Total	5.02	4.92	

Considering how the participants valued the jigsaw activity, three questionnaire items, namely item three, item eight, and item thirteen were examined. As can be seen from Table 4.6, the participants believed the jigsaw activity was beneficial and the mean for this item was 5.00. They also thought jigsaw activity could help improve their reading comprehension at the mean of 5.19. However, the mean of whether they were willing to participate in the jigsaw activity again was slightly lower at 4.88.

Table 4.7 Participants' relatedness after experiencing jigsaw activity

Statement	N = 16		Level of Perception
	Mean	*SD*	
I felt I could trust my friends. (Item 4)	5.13	0.99	Quite True
I preferred interacting with my friends to working alone. (Item 9)	5.13	1.80	Quite True
I feel like working with my friends in a group again. (Item 14)	4.31	1.89	Moderately true
Total	4.86	1.56	

In this case, the questionnaire items that illustrated participants' relatedness in the jigsaw activity according to the IMI were item four, item nine and item fourteen. The results of participants' relatedness after participating in the jigsaw activity are displayed in Table 4.7. The participants felt they could trust and preferred interacting with their friends to working along while doing the jigsaw activity at the mean of 5.13. They also feel like working with friends in a group again, and the mean for this item was 4.31.

Table 4.8 Participants' interest after experiencing the jigsaw activity

Statement	N = 16		Level of Perception
	Mean	*SD*	
I enjoyed participating in the jigsaw activity. (Item 5)	4.88	1.73	Quite True
The jigsaw activity held my attention throughout the whole class. (Item 10)	4.31	1.31	Quite True
I would describe this activity as very interesting. (Item 15)	5.38	1.41	Moderately true
Total	4.86	1.48	

To investigate the participants' interest in the jigsaw activity, questionnaire item five, item ten, and item fifteen were analyzed. The results from Table 4.8 showed that the participants enjoyed participating in the jigsaw activity with the mean of 4.88. The participants thought the jigsaw activity could hold their attention throughout the class at the mean of 4.31. Moreover, they viewed that the jigsaw activity was interesting at the mean of 5.38.

As can be seen in Table 4.4 to Table 4.8, the participants valued the jigsaw activity with the highest mean at 5.02, followed by the participants' relatedness and interest after participating in the jigsaw activity with the mean of 4.86. The mean of the participants' competence was at 4.63, while the mean of participants' pressure during the jigsaw activity had the lowest value at 2.96. The last part of the questionnaire emphasized the participants' opinions towards applying the jigsaw technique in the classroom by asking open-ended questions related to the topic. There were three questions and the results were as follows.

1. What are the advantages of using the jigsaw technique in the classroom?

According to the participants' responses, most of them agreed that using the jigsaw technique in the classroom provided several advantages. In the first place, most

of the participants believed that they were able to improve their reading skill through the jigsaw reading activity, both pronunciation and comprehension. Moreover, they commented that they tended to think and try to solve problems more during the activity. In addition, they gained a lot of new vocabulary from the reading tasks, which broadened their knowledge and enabled them to understand the texts. In this case, one of the students commented, "I learned how to pronounce many new words from the texts while searching for their meanings and observing how to pronounce those words." Another student added that "I think I can comprehend the texts better as I can identify the key points rather than just read and translate everything in the texts." Most importantly, most participants were likely to communicate and share their thoughts with their classmates, which helped build rapport between them. Some of the participants believed that they were more confident to discuss or explain their opinions.

2. What are the disadvantages of using the jigsaw technique in the classroom?

On the other hand, the participants also felt that there were some disadvantages of using the jigsaw technique in the classroom. Some participants, especially those who were capable of completing the tasks alone, commented that the downside of the jigsaw technique was that they had to wait for their classmates to finish reading and comprehending the texts assigned so they could move on to the next step. Accordingly, working alone seemed to be easier and faster for them. In this case, almost all of the participants were considered as low proficiency students; therefore, they needed some time to read and comprehend the assigned text. Furthermore, some participants expressed that the jigsaw technique allowed the participants, especially those who did not cooperate with the team, to ignore the tasks. To elaborate, they explained that some of the classmates usually played on the phones or chatted during the group activity. On top of that, they did not pay attention when their classmates talked or shared what they got from reading the texts and some did not contribute anything to the group tasks. However, they could finish the tasks by relying on their classmates. One of the students shared: "I prefer to complete the tasks alone because sometimes it is hard to control others and ask for their attention."

Furthermore, "When I finish my assigned tasks, I have to wait for the rest of my friends to finish theirs, or even have to explain the tasks to them myself," another student added.

3. Are there any obstacles while participating in the jigsaw activity?
   Please specify.

Considering the participants' responses, it can be concluded that some of them faced obstacles while participating in the jigsaw activity. Most of the participants struggled because they did not know particular words in the texts or the words were too difficult; as a result, they could not determine the meaning of some words and the texts. Besides, it took time for them to translate the assigned texts, so some of them felt like they wanted to give up. As the participants had to work by themselves first before sharing with their classmates, it was possible that each of them comprehended the texts differently. Consequently, they sometimes did not listen to each other and started to argue, which resulted in a negative classroom atmosphere. In addition, some students, mainly those who were quiet, viewed that their classmates tended to ignore them when they wanted to share their opinions as they were not good at communicating or expressing themselves.

In conclusion, the results indicated that students' post-test scores were significantly higher after being involved in the jigsaw reading activity. Therefore, it may be assumed that the jigsaw activity can improve students' reading comprehension. Additionally, students' competence, value, relatedness, and interest after participating in the jigsaw activity had a mean of approximately 4.84. Accordingly, it can be said that students' perceptions towards the jigsaw activity appeared to be positive. In the next chapter, the results found in the study will be discussed and clarified.

CHAPTER 5
DISCUSSION, CONCLUSION AND RECOMMENDATIONS

As mentioned in the previous chapter, this study aimed to answer two research questions: (1) Can the jigsaw technique improve EFL students' reading comprehension? and (2) What are students' perceptions towards using the jigsaw technique in the classroom? To answer the first research questions, a reading comprehension pretest and posttest were conducted. The participants took the pretest, participated in five reading classes that employed the jigsaw activity, and completed the posttest respectively. In order to respond to research question number two, the participants completed the questionnaire, which utilized the Intrinsic Motivation Inventory (IMI) to investigate their perceptions after they experienced the jigsaw reading activities.

This chapter focuses on the discussion, conclusion, and recommendations regarding the findings of the study. The chapter is divided into five main sections as follows: the summary of the findings is recapped in section 5.1. Then, the findings are discussed in section 5.2, and then these findings are concluded in section 5.3. Moreover, the implications of the study are described in section 5.4. Lastly, recommendations for further study are made in section 5.5.

5.1 Summary of the findings

To begin with, the pre-test and post-test scores of the participants were considered in order to investigate the differences between them. In this case, descriptive statistics including mean and standard deviation were calculated via Microsoft Excel. The findings showed that the participants' post-test scores were higher than the pre-test ones at a significant level after they practiced reading comprehension through the jigsaw activity. In detail, the mean scores on the pre-test and post-test were at 11.94 and 15.06 respectively. Accordingly, it can be summed up that the jigsaw technique can enhance beginner EFL students' reading comprehension.

In addition to the pre-test and the post-test scores, this study also investigated the perceptions of the participants towards the jigsaw reading activities through the IMI questionnaire. There were sixteen participants who were studying in grade nine (Mattayom 3) at a public school in Bangkok, Thailand. All of the participants were studying fundamental English in the second semester of academic year 2020 and were selected to be the participants in this study through the convenience sampling technique. Moreover, none of them had experienced jigsaw activities in the classroom before this study. At the end of the activity, the participants responded to the questionnaire in order to reflect their ideas. The results from the questionnaire items in part two indicated that the participants believed that they could do well and were satisfied with their performances during the jigsaw activity (M=4.63). In addition, they considered the jigsaw technique useful for improving their reading comprehension and were willing to participate in the activity again (M=5.02). Furthermore, they agreed that the jigsaw activity was interesting and could hold their attention (M=4.86). After experiencing jigsaw reading activities, the participants found that the activity promoted teamwork and built trust among peers (M=4.86). Considering the participants' pressure during jigsaw activities, some participants felt nervous when they had to complete the assigned tasks (M=2.96).

According to the participants' responses in the open-ended part of the questionnaire, it can be summarized that most of the participants agreed there were various benefits of using the jigsaw technique in the classroom. For instance, they tended to know how to pronounce many new words and be able to state their meanings. In addition, they had more chances to interact with other classmates during the discussion which was part of the activity. However, the participants also viewed that there were some downsides; for example, those who preferred to work alone reflected that most of the time they had to wait for their classmates so that they could complete the tasks. Thus, it took longer than working alone; moreover, it was hard to control their classmates' actions. Additionally, there were some obstacles that the participants encountered during the jigsaw activity. For one thing, most of them knew very few words; thereby, they had difficulty understanding the meanings of both words and sentences. Furthermore, some of them found that sometimes it was not

easy to communicate with others since some did not pay attention to what others said, while some were not good at sharing ideas.

5.2 Discussion

In this section, the findings regarding the two research questions are discussed. To investigate the first research question, the mean and standard deviation of the pre-test and post-test scores from the reading comprehension tests were calculated through Microsoft Excel to find out the effect of the jigsaw technique on beginner EFL students' reading comprehension. The other research question aimed to observe students' perceptions after participating in the jigsaw reading activity five times. In this case, the students' perceptions were determined by conducting the questionnaire employing the Intrinsic Motivation Inventory (IMI) to categorize the perceptions into five main aspects, namely competence, pressure, value, relatedness, and interest.

A CEFR level A2 reading comprehension pretest and posttest was utilized in order to respond to the first research question: Can the jigsaw technique improve beginner EFL students' reading comprehension? It can be seen from the results that most of the students got higher scores in the posttest after they took part in the jigsaw activity. To illustrate, the post-test scores (*M*=15.06, *SD*=3.45) were higher than the pre-test scores (*M*=11.94, *SD*=3.71) at a significant level. All in all, the results from the study are in line with Kazemi (2012), Prom-d (2012), Nurbianta and Dahlia (2018), Abed (2019), Vu (2019), and Islam (2020), who found that the jigsaw technique helped improve reading comprehension skills.

The results from the questionnaire were examined to answer the second research question: What are the perceptions towards using the jigsaw technique in the classroom? The results indicated that most of the students had a positive view towards jigsaw activity. For the competence aspect, most of the students agreed that they did well and were satisfied with their performances during the jigsaw activity, and their perception level on this aspect was "Quite True." According to the results, the jigsaw reading activity appeared to boost students' confidence rather than only improving their reading comprehension skills. The aforementioned findings support Garcia et al. (2017), who found that students' confidence was increased when their academic skills improved.

The next aspect was students' pressure while participating in the jigsaw activity. To illustrate, the students in this study tended to be worried, especially when they had to do the assigned tasks and share ideas with others, and the level of perception in this aspect was "Slightly True." The study of Badrawi and Hassan (1994) determined that to be able to comprehend the text, the students needed to understand the text first by having enough vocabulary knowledge or knowing about words and sentence arrangement. Considering the findings of the study, it is possible that most students felt nervous during the activity since most of them were at low proficiency levels and knew very few English words; some of them could not even read English words. Consequently, the students might think the assigned tasks were so difficult that they were not sure if they could comprehend or explain the tasks to their peers correctly.

For the students' value aspect, the results from the questionnaire showed that most of the students believed the jigsaw activities had a positive effect on their reading comprehension. Additionally, they were willing to be involved in such activities again. In this case, the perception level of students' value after joining jigsaw activity was "Quite True." The results conform to many research studies which found that the majority of the participants had positive attitudes towards the jigsaw activity. Moreover, they believed the activities could enhance their reading comprehension skills and thus agreed to take part in the activities again.

Furthermore, the results according to students' relatedness after participating in the jigsaw activity were in the level of "Quite True." During the jigsaw activities, the students were encouraged to interact with their peers and work as a group more when they had to help each other to complete the tasks. This concurred with Kazemi (2012), Adams (2013), and Robbani (2017), who found that the students who participated in the jigsaw activity tended to be more active in terms of interacting with their peers and working as a group because the format of the activity encourages such dynamics.

The last aspect that will be discussed is students' interest after experiencing the jigsaw activity. The majority of the student's perception was at the level of "Quite True." In detail, students agreed that they enjoyed participating in the jigsaw activity and found it interesting. The results conform to the research conducted by Prom-d

(2012), which found that students' interest in practicing reading comprehension was increased through jigsaw activities.

According to the first open-ended questions in the questionnaire, the students' responses displayed the advantages of using the jigsaw technique in the classroom according to their opinions; this gives further credence to Garcia et al. (2017), who found that the students' academic skills were improved after participating in jigsaw activities. The findings indicated that the students learned many new words and were able to comprehend the text better. Furthermore, the students also commented that they could communicate better, which was in accordance with the idea that the jigsaw technique promotes working collaboratively as the students are required to help each other (Nurbianta & Dahlia, 2018).

The findings from the second open-ended question presented that there were also some disadvantages of using jigsaw activities. Although the jigsaw activity emphasized group work, the students still had to be responsible for the assigned tasks individually before sharing with their peers. At this stage, some of the students, especially those who were able to complete the tasks themselves, found that working individually was faster and more productive than working as a group because some of their peers worked slowly. In this case, it was vital for the teachers to manage the class effectively. For instance, teachers need to assign the tasks to each student equally so that individual students did not end up doing the bulk of the tasks (Karacop & Diken, 2017). Moreover, teachers should prompt and encourage each student to actively work on their part and interact with their peers in order for the jigsaw activities to be successful (Robbani, 2017).

Regarding the last open-ended question in the questionnaire, the findings illustrated several obstacles students faced during the activities. One was related to the students' lack of English language skills. As claimed by many researchers, it is necessary for students to have enough language skills in order to comprehend the text (Babayiğit & Stainthorp, 2011, as cited in Mckee, 2012), and since the participants in the present study were beginner learners, they lacked such skills. Considering the students' responses, many of them reflected that it was difficult to comprehend the texts since they did not know the meaning of the words, which resulted in them giving up on the task. Another interesting point found from the participants' responses was

the fact that jigsaw activities could possibly create a negative classroom atmosphere; for example, some students disagreed with other's ideas or did not pay attention to the activity, which was in contrast to other researches who found that the jigsaw activity usually brightened up the classroom atmosphere and promoted good relationships between peers (Abed, 2019; Islam, 2020).

5.3 Conclusion

The study focused on investigating two research questions, namely 1) Can the jigsaw technique improve EFL students' reading comprehension? and 2) What are students' perceptions towards using the jigsaw technique in the classroom? In order to answer these two research questions, participants were recruited. In order to find out whether the jigsaw technique improves EFL students' reading comprehension, the pre-test and post-test scores derived from the reading comprehension tests taken by the participants who participated in the jigsaw activity five times were examined by calculating descriptive statistics using Microsoft Excel. The findings were in line with many research studies in that the mean of post-test scores was significantly higher. Therefore, the results suggested that the jigsaw technique could help improve reading comprehension skills. The participants were also asked to give opinions on the jigsaw technique through the IMI questionnaire to find out how they perceived the activities. The questionnaire was divided into three main parts: general information, perceptions towards the jigsaw technique, and three open-ended questions to reflect their thoughts. The findings indicated that most of the participants perceived the jigsaw technique positively, even though some obstacles were also mentioned.

Due to the fact that most of the students lack motivation to learn, it is important for teachers to seek teaching and learning approaches that are interesting enough to encourage them to participate in the learning activities. In this case, the jigsaw technique, which is one of the cooperative learning methods, was introduced to the students, and the findings showed that the jigsaw technique was beneficial for both students and teachers in learning and teaching languages. As a student, the jigsaw technique enables them to learn by trying to seek knowledge and solve problems by themselves, which can result in improving their academic skills. On top of improving academic skills, the jigsaw technique can also motivate them to learn as

they do not have to complete the whole tasks alone; the technique promotes peer-assistance, which allows them to consult their classmates in order to complete the tasks. As a teacher, it can be concluded from the findings of the study that using the jigsaw technique in the classroom can enable students to perform better in reading comprehension compared to teaching them with traditional methods. However, the findings also reaffirm that teachers play an important role in operating the jigsaw activity. Although there are clear instructions regarding how to operate the jigsaw activity, teachers need to be able to control and solve unexpected problems in order to prevent a negative atmosphere, which may affect students and cause them to stop participating in the jigsaw activity.

5.4 Implications of the Study

The findings of the study imply that there are some factors to consider in order to effectively apply the jigsaw technique in the classroom. In the first place, teachers should explain the steps of how to operate the jigsaw activity very clearly and simply to avoid confusion; they also need to check whether their students really get the core of the information. In the present study, it was found that some students did not know what to do during the activity as some of them did not pay attention to the teachers' explanations, or some claimed that there were too many steps to follow. Accordingly, teachers might ask the students to help each other to identify steps of operating the jigsaw activity after presenting it to them in order to check their understanding. In addition, teachers might need to emphasize how using the jigsaw technique would benefit the students since some of them were not interested in participating in the activity until they were sure that they would get some positive outcomes. For instance, some students seemed to be willing to participate in the activity more after the teacher pointed out that each of them was assigned to complete only some small sections instead of the whole tasks through the jigsaw activity.

During the activity, the major problem that students encountered was that they did not know the meaning of the words that appeared in the text; therefore, most of them felt like giving up. To avoid this problem, teacher should select and present the words that students need to know beforehand in order to assist in text comprehension. At this stage, teachers should point out that it is not necessary to find the meaning of

every single word to be able to read the text. While the students were searching for the meaning of the words and working on comprehending the texts, it is recommended that the teacher walk around to observe each group of students and guide them along. During class observations, it was founded that most of the students were more eager to search for the meanings when provided the targeted words since they did not have to look for every single word and they could ask other students in the group to help find the meanings and then share with each other. It was also found that sometimes the students would select the words themselves and then ask their friends to find the meaning of the chosen words right after they got the assigned texts; this enabled the group to work faster and promoted teamwork.

Another challenge found during the jigsaw activities was that students might not be comfortable participating in the activity if they found it was difficult to deal with peers. Accordingly, it was vital for teachers to be able to identify their students' roles in a group so that they could be grouped properly. To elaborate, students with different abilities should be grouped together so that they can perform their tasks thoroughly. For instance, it is hard to complete the tasks if a group consists of only quiet students who rarely speak or share opinions. In contrast, students can work better as a team when members with different personalities are mixed. For example, students who act as the leaders can manage and lead the team to complete the assigned tasks step by step, while those who are good at discussing can be responsible for explaining the details or asking their friends to share. However, it should be noted that sometimes it is impossible to categorize students' personalities and put them into ideal groups as mentioned previously. In this case, teachers should be able to handle any challenges that occur during the activity. For instance, sometimes students face problems when their peers do not cooperate with the team, such as they tend to let others finish the tasks without helping or they ignore it when their friends share something. Based on the class observations, it is possible that these students assume they are not going to be the ones who share the information with the whole class so that they do not need to pay attention. To avoid this kind of problem, teachers might need to involve them in the activities more. According to this study, each group was asked to assign each student a number; for example, group A consisted of four members, so the students had to decide who was going to be number one, number

two, number three, or number four. The reason was that teacher would select the number from each group randomly and those who were selected would be the representatives who presented the information to the class. This technique was added to ensure that every student had to focus on the tasks, and it was necessary for them to know about the assigned section; therefore, they needed to participate and cooperate with other team members.

All in all, although the jigsaw technique aims to promote students' learning by doing, teachers still play an important role as the facilitator who leads the classes so that the activity flows smoothly. Therefore, teachers should be well-prepared and be able to handle all kinds of challenges that might occur during jigsaw reading classes. Furthermore, it is possible to add some steps or techniques that would support operating jigsaw classes more effectively by considering students' differences and personalities.

5.5 Recommendations for Further Study

The recommendations for further study are made as follows. First, the scale of the study should be extended; in the present study, the participants were limited to only sixteen. Therefore, more participants should be recruited in order to make the findings more convincing. Moreover, the scope of the study was limited to investigating student's reading comprehension at only the literal level, which is to find the main ideas, supporting ideas, or facts appeared in the texts. Accordingly, other reading comprehension levels, namely inferential and evaluative comprehension, can be included in further studies in order to determine the extent to which the jigsaw technique can improve other reading comprehension skills.

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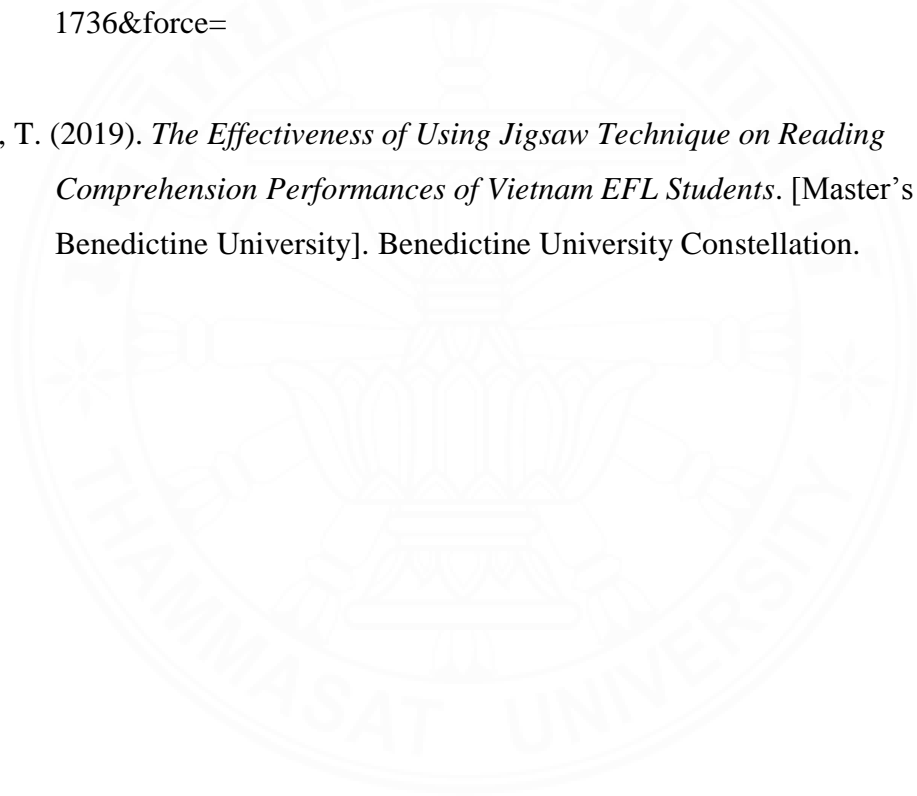
APPENDICES

APPENDIX A
QUESTIONNAIRE (ENGLISH VERSION)

Part 1: General Information

Instructions: Mark ✓ in the bracket to indicate your background information.

1. Gender

    ( ) Male   ( ) Female

2. Age

    ( ) 15-16   ( ) 17-18

3. English Language Proficiency (Scores of Fundamental English in Previous Course)

    ( ) 50-60   ( ) 60-70

    ( ) 70-80   ( ) 80-90

4. Have you ever participated in the classroom that applied the jigsaw technique?

    ( ) Yes   ( ) No

Part 2: Students' Perception towards Using The jigsaw technique in the Classroom

Instructions: Read through the following statements carefully and mark ✓ at the level that best indicates your thought towards each statement.

Does not true at all	Very slightly true	Slightly true	Moderately true	Pretty true	Very true	Exactly true
1	2	3	4	5	6	7

Statement	1	2	3	4	5	6	7
1. I think I am good at jigsaw activity.							
2. I am stressed while doing the tasks in jigsaw activity.							
3. I believe jigsaw activity is beneficial for me.							
4. I felt I could trust my friends during jigsaw activity.							
5. I enjoyed participating in jigsaw activity.							
6. I can do very well at jigsaw activity comparing to others.							
7. I am worried about the assigned task in jigsaw activity.							
8. I think jigsaw activity help improve my reading comprehension.							
9. I preferred to interact with my friends while doing jigsaw reading activity.							
10. Jigsaw activity can hold my attention throughout the class.							
11. I am satisfied with my performance during jigsaw activity.							
12. I felt nervous when I have to share my thought to the group during jigsaw activity.							
13. I am willing to participate in jigsaw activity again.							
14. I felt like working with my friends as a group in jigsaw activity again.							

Part 3: Open Ended Questions

Instructions: Answer the following questions according to your opinion.

1. What are the advantages of using the jigsaw technique in the classroom?

…………………………………………………………………………………………..

………………………………………………………...…………………………………

…………………………………………………………………………………………..

………………………………………………………………………………………….

…………………………………………………………………………………………..

2. What are the disadvantages of using the jigsaw technique in the classroom?

………………………………………………………………………………………….

………………………………………………………...…………………………………

………………………………………………………………………………………….

…………………………………………………………………………………………

…………………………………………………………………………………………..

3. Are there any obstacles while participating in jigsaw activity? Please specify.

………………………………………………………………………………………….

………………………………………………………...…………………………………

………………………………………………………………………………………….

…………………………………………………………………………………………

…………………………………………………………………………………………..

APPENDIX B
QUESTIONNAIRE (THAI VERSION)
แบบสอบถาม

ตอนที่ 1: ข้อมูลทั่วไป

คำชี้แจง: เขียนเครื่องหมาย ✓ ในวงเล็บเพื่อตอบคำถามเกี่ยวกับข้อมูลทั่วไปของนักเรียน

1. เพศ

( ) ชาย   ( ) หญิง

2. อายุ

( ) 15-16   ( ) 17-18

3. คะแนนวิชาภาอังกฤษพื้นฐาน (ภาคเรียนที่ 1 ปีการศึกษา 2563)

( ) 50-60   ( ) 60-70

( ) 70-80   ( ) 80-90

4. นักเรียนเคยมีประสบการณ์ในการเรียนรู้ผ่านกิจกรรมที่ใช้เทคนิค Jigsaw มาก่อนหรือไม่

( ) เคย   ( ) ไม่เคย

ตอนที่ 2: การรับรู้ของนักเรียนต่อการเรียนรู้ผ่านเทคนิค Jigsaw ในชั้นเรียน

คำชี้แจง: อ่านข้อความที่กำหนดให้และเขียนเครื่องหมาย ✓ ตามระดับความรู้สึกของนักเรียนที่มีต่อข้อความในแต่ละข้อ

	ไม่เห็นด้วยอย่างยิ่ง	ไม่เห็นด้วย	เห็นด้วยบ้าง	เห็นด้วยปานกลาง	ค่อนข้างเห็นด้วย	เห็นด้วยมาก	เห็นด้วยอย่างยิ่ง
	1	2	3	4	5	6	7

ข้อความ	1	2	3	4	5	6	7
1. ฉันคิดว่าฉันทำกิจกรรม jigsaw ได้ดี							
2. ฉันรู้สึกเครียดในขณะร่วมกิจกรรม jigsaw							
3. ฉันเชื่อว่ากิจกรรม jigsaw มีประโยชน์กับฉัน							
4. ฉันรู้สึกไว้วางใจเพื่อนๆ ในขณะทำกิจกรรม jigsaw รวมกัน							
5. ฉันรู้สึกสนุกเมื่อได้ร่วมกิจกรรม jigsaw							
6. ฉันสามารถทำกิจกรรม jigsaw ได้ดีเมื่อเทียบกับเพื่อนคนอื่นๆ							
7. ฉันรู้สึกกังวลเกี่ยวกับงานที่ได้รับมอบหมายในกิจกรรม jigsaw							
8. ฉันคิดว่ากิจกรรม jigsaw ช่วยพัฒนาการอ่านได้							
9. ฉันชอบที่จะปฏิสัมพันธ์กับเพื่อนในขณะที่ร่วมกิจกรรม jigsaw							
10. กิจกรรม Jigsaw ทำให้ฉันจดจ่อกับกิจกรรมการเรียนรู้ตลอดทั้งคาบ							
11. ฉันพอใจกับผลงานของฉันในระหว่างการทำกิจกรรม jigsaw							
12. ฉันรู้สึกกังวลเมื่อต้องแบ่งปันความคิดกับเพื่อนร่วมชั้นในขณะร่วมกิจกรรม jigsaw							
13. ฉันยินดีที่จะร่วมกิจกรรม jigsaw อีกครั้ง							
14. ฉันอยากทำงานกลุ่มร่วมกับเพื่อนๆ ในกิจกรรม jigsaw อีกครั้ง							
15. ฉันคิดว่ากิจกรรม jigsaw เป็นกิจกรรมที่น่าสนใจ							

ตอนที่ 3: คำถามปลายเปิดเกี่ยวกับการรับรู้ของนักเรียนต่อการเรียนรู้ผ่านเทคนิค Jigsaw ในชั้นเรียน

คำชี้แจง: ตอบคำถามต่อไปนี้ โดยตอบคำถามตามความคิดของนักเรียน

1. การใช้เทคนิค jigsaw ในชั้นเรียนมีประโยชน์อย่างไรบ้าง

………

………

………

………

2. ข้อเสียของการใช้เทคนิค jigsaw ในชั้นเรียนมีอะไรบ้าง

………

………

………

………

3. นักเรียนพบอุปสรรคใดบ้างระหว่างร่วมกิจกรรม jigsaw โปรดระบุและอธิบาย

………

………

………

………

APPENDIX C
READING COMPREHENSION TEST
(PRE-TEST)

Item 1-10: Read the text below and decide whether each statement is TRUE or FLASE.

(This text was taken from https://learnenglish.britishcouncil.org/skills/reading/pre-

---

Hi Lucia

How are you? It was so nice to meet you last week in Sydney at the sales meeting. How was the rest of your trip? Did you see any kangaroos? I hope you got home to Mexico City OK.

Anyway, I have the documents about the new Berlin offices. We're going to be open in three months. I moved here from London just last week. They are very nice offices, and the location is perfect. There are lots of restaurants, cafés and banks in the area. There's also public transport; we are next to an U-Bahn (that is the name for the metro here). Maybe you can come and see them one day? I would love to show you Berlin, especially in the winter. You said you have never seen snow – you will see lots here!

Here's a photo of you and me at the restaurant in Sydney. That was a very fun night! Remember the singing Englishman? Crazy! Please send me any other photos you have of that night. Good memories.

Please give me your email address and I will send you the documents.

Bye for now

Mikel

---

intermediate-a2/a-message-to-a-new-friend)

1. Mikel and Lucia were friends from school.   A. True   B. False

2. Mikel lives in Mexico.   A. True   B. False

3. New offices in Berlin are going to be opened in three months. A. True   B. False

4. They work for a company that sells things.   A. True   B. False

5. The new offices are in a very good location.   A. True   B. False

6. There is a metro next to the offices. A. True B. False

7. Mikel has never seen snow before. A. True B. False

8. Mikel and Lucia had dinner together. A. True B. False

9. Mikel doesn't have Lucia's email address. A. True B. False

10. Lucia wants to send Mikel some documents. A. True B. False

Item 11-20: Read the text below and choose the best answers.

(This text was taken from https://test-english.com/reading/a2/chinese-new-year/)

Chinese New Year

Chinese New Year (or generally referred to as Lunar New Year globally) is the Chinese festival that celebrates the beginning of a new year on the traditional Chinese calendar. The festival is usually referred to as the Spring Festival in mainland China, and is one of several Lunar New Years in Asia.

Celebrations traditionally take place from the evening preceding the first day of the year to the Lantern Festival, held on the 15th day of the year. The first day of Chinese New Year begins on the new moon that appears between 21 January and 20 February. In 2019, the first day of the Chinese New Year was on Tuesday, 5 February, initiating the Year of the Pig.

Chinese New Year is a major holiday in Greater China and has strongly influenced lunar new year celebrations of China's neighbouring cultures, including the Korean New Year (seol), the Tết of Vietnam, and the Losar of Tibet. It is also celebrated worldwide in regions and countries with significant Overseas Chinese populations, including Singapore, Indonesia, Malaysia, Myanmar, Thailand, Cambodia, the Philippines, and Mauritius, as well as many in North America and Europe.

Chinese New Year is associated with several myths and customs. The festival was traditionally a time to honour divinities as well as ancestors. Within China, regional customs and traditions concerning the celebration of the New Year vary widely, and the evening preceding Chinese New Year's Day is frequently regarded as an occasion for Chinese families to gather for the annual reunion dinner. It is also traditional for every family to thoroughly clean their house, in order to sweep away any ill-fortune and to make way for incoming good luck. Another custom is the decoration of windows and doors with red paper-cuts and two-line poems. Popular themes among these paper-cuts and two-line poems include that of good fortune or happiness, wealth, and longevity. Other activities include lighting firecrackers and giving money in red paper envelopes. For the northern regions of China, dumplings are featured prominently in meals celebrating the festival. It often serves as the first meal of the year.

11. Chinese New Year referred to ... globally.

    A. Chinese Festival   B. Lunar New Year   C. Spring Festival

12. The people in China call Chinese New Year...

    A. Chinese New Year.   B. Spring Festival.   C. Lantern Festival.

13. The New Year in China begins...

    A. in January.   B. in February.   C. in January or February.

14. The Korean New Year, the Tết of Vietnam, and the Losar of Tibet are...

    A. similar to Chinese New Year.

    B. very different from Chinese New Year.

    C. the celebration of Chinese New Year in different countries.

15. Chinese New Year...

    A. is celebrated in different ways depending on the region.

    B. is a very religious celebration nowadays.

    C. was celebrated with music in the past.

16. The Chinese clean their house...

    A. to decorate it.   B. to be happy.   C. to have good luck.

17. The text talks about traditions in the northern regions of China related to...

    A. parties.   B. food.   C. music.

18. When is the beginning of Chinese New Year in 2019?

    A. 21 February   B. 20 February   C. 5 February

19. According to the text, which is not the activity that is frequently done in Chinese New Year?

    A. gather for dinner   B. four-line poem   C. decorate doors

20. Dumplings are featured in meals celebrating the festival in …of China.

    A. northern regions   B. southern regions   C. central regions

Item 21-30: Read the text below and choose the best answers. (This text was taken from https://www.examenglish.com/A2/A2_reading_marathon_runner.htm)

Marathon Runner

A day in the life of Paula Radcliffe - Marathon Runner

8.30am

Sometimes, my daughter Isla wakes me and my husband, Gary, up, or, more often, we wake her up. After I get up, I always check my pulse. It's usually 38-40 beats per minute. If it is too high, I rest for the day. It's so important to listen to my body. I have a drink and a snack while giving Isla her breakfast.

9.30am

We take Isla to nursery and then I start my training. I run, and Gary rides his bike next to me and gives me drinks. Four times a week, I have a cold bath or go for a swim in a lake after training.

12.30pm

I pick up Isla from nursery and we go home and I eat a big lunch of cereal and fruit. Then I have rice and salmon, or toast and peanut butter. I try to eat as soon as possible after training. After lunch, I play with my daughter.

2pm

I have a nap in the afternoon, and Gary usually takes Isla out while I sleep. When I wake up, I have a drink and a snack while Isla has milk. I eat a lot during the day, especially bananas and dark chocolate.

5pm

I go running again. In total, I run about 145 miles every week. I write about all my runs in my training journal. I record everything, including how I feel and what the weather is like. I train hard every other day, go on an extra long run every four days and rest every eighth day.

7pm

In the evening, I do my exercises. These keep me strong during long runs. Isla likes to climb on me while I stretch. Gary gives Isla her tea and cooks mine while I finish my exercises. Then I finish cooking dinner while Gary gives Isla her bath.

7.30pm

Gary and I eat our dinner. I have red meat four times a week with rice, pasta or potatoes, and lots of vegetables. We also eat a lot of stir-fries, because they're quick and healthy.

8pm

We put Isla to bed and relax. I check my emails and watch TV or chat with Gary. I love police and hospital dramas!

10.30pm

Time for bed. As I brush my teeth, I stand on one leg and then the other. This keeps my legs strong. I enjoy reading, but I haven't read much since Isla was born.

21. Usually,…

    A. Paula and Gary wake up Isla.

    B. Gary wakes up Paula and Isla.

    C. Isla wakes up Paula and Gary.

22. While Paula has her morning run, Gary…

    A. takes Isla to nursery.   B. cycles next to her.   C. goes to work.

23. After training, Paula…

    A. has lunch, bathes, then collects her daughter.

    B. bathes, collects her daughter, then has lunch.

    C. collects her daughter, bathes, then has lunch.

24. After lunch, Gary looks after Isla while Paula…

    A. trains.   B. sleeps.   C. eats.

25. Paula…

    A. eats large meals but never eats snacks.

    B. eats large meals and often eats snacks.

    C. eats small meals but often eats snacks.

26. Every two days, Paula

    A. goes for a long run.   B. runs 145 miles.   C. trains extra hard.

27. While Paula does her exercises, her daughter…

    A. has dinner.   B. climbs on her.   C. plays with Gary.

28. In the evening, …

    A. Gary bathes Isla, then Gary and Paula eat, then Isla goes to bed.

    B. Gary bathes Isla, then Isla goes to bed, then Gary and Paula eat.

    C. Gary and Paul eat, then Gary bathes Isla, then Isla goes to bed.

29. Paula does exercises to strengthen her legs while she…

    A. cooks dinner.   B. brushes her teeth.   C. watches TV.

30. Now Paula has a daughter, she rarely…

    A. reads.   B. watches TV.   C. spends time with Gary.

APPENDIX D
READING COMPREHENSION TEST
(POST-TEST)

Item 1-10: Read the text below and decide whether each statement is TRUE or FLASE.

(This text was taken from https://learnenglish.britishcouncil.org/skills/reading/pre-

---

Hi Samia,

Just a quick email to say that sounds like a great idea. Saturday is better for me because I'm meeting my parents on Sunday. So if that's still good for you, why don't you come here? Then you can see the new flat and all the work we've done on the kitchen since we moved in. We can eat at home and then go for a walk in the afternoon. It's going to be so good to catch up finally. I want to hear all about your new job!

Our address is 52 Charles Road, but it's a bit difficult to find because the house numbers are really strange here. If you turn left at the post office and keep going past the big white house on Charles Road, there's a small side street behind it with the houses 50–56 in. Don't ask me why the side street doesn't have a different name! But call me if you get lost and I'll come and get you.

Let me know if there's anything you do/don't like to eat. Really looking forward to seeing you!

See you soon!

Gregor

---

intermediate-a2/an-email-from-a-friend)

1. Samia sent an email to Gregor.	A. True	B. False
2. Samia and Gregor are going to meet on Sunday.	A. True	B. False
3. Gregor is going to make lunch.	A. True	B. False
4. They've planned to eat at home.	A. True	B. False
5. They haven't seen each other for a long time.	A. True	B. False
6. Samia's life hasn't changed since they last met.	A. True	B. False

7. The house is easy to find.   A. True   B. False

8. Gregor doesn't know the name of the side street his flat is on.   A. True   B. False

9. The house number is really easy to remember.   A. True   B. False

10. Gregor asks Samia to email him in case she cannot find a house.   A. True   B. False

Item 11-20: Read the text below and choose the best answers.

(This text was taken from https://test-english.com/reading/a2/its-in-the-news/)

<div align="center">

It's in the news

</div>

Texting while walking is dangerous

Writing text messages and walking is dangerous. It is more dangerous than driving and texting. More people get injured while walking than driving. Walking in a straight line is not easy. We can forget how to walk properly. Dangerous things can happen. We run into people or cars. We fall over things in the street.

There are a few reasons why texting and walking is dangerous. People cannot see when they look at their keyboard. Their minds are somewhere else – they are not thinking about walking safely. Thousands of people have accidents. Some have serious head injuries.

Too much jogging could be a problem!

Running is good for our health. A recent study says that running too much is bad for us and it doesn't always make our lives longer. A specialist said too much running can damage your heart. Long-distance runners and people who never exercise can have the same risk of having a heart attack.

Experts looked at the health of 3,300 runners. Most of them ran over 30 kilometres a week. Marathon runners had hard parts in their heart. A doctor who started running in 1967 is sad. He ran 60 kilometres every week. He thought his heart was strong. Now he has heart problems. He said we should exercise, but not too much.

---

11. Texting while walking is ...

   A. safer than driving and texting

   B. worse than driving and texting

   C. as dangerous as driving and texting

12. Some people can be hurt in their ...

  A. heads   B. backs   C. hands

13. Too much running could make our lives ...

  A. safer   B. shorter   C. happier

14. How many runners did the researchers look at?

  A. Thirteen hundred

  B. Thirty-three thousand

  C. Three thousand three hundred

15. A doctor who started running in nineteen sixty-seven ...

  A. is very happy

  B. said some exercise is good

  C. thought his heart wasn't strong

16. Specialists said running too much can harm your …

  A. head   B. heart   C. leg

17. According to the text, most runners run over … kilometres per week.

  A. Thirteen   B. Thirty   C. Three thousand

18. Which is not the reason why texting while walking is dangerous?

  A. We run into the cars.

  B. We don't know how to walk straight.

  C. We can't see anything except the keyboard.

19. According to the text, long-distance runners and people who never exercise can have the same risk of having a …

  A. heart attack   B. headache   C. none of these

20. Which statement is TRUE?

  A. Every runner will have a heart attack soon.

  B. Thousands of people have accidents due to texting while walking.

  C. Long-distance runners are all healthy.

Item 21-30: Read the text below and choose the best answers.

(This text was taken from https://www.examenglish.com/A2/A2_reading_education.htm)

Education

Sixteen - What now?

You're 16 and finally you can leave school! By now, you're probably sick of teachers, desks, tests and exams. But don't just run for the exit. You need to think carefully about what to do next.

If you want a professional career, you will need to go to university and get a degree. To do that, you need to stay at high school for another two years. But you needn't stay at the same place. There are several options in the district of Northacre.

St. Leopold's School has the best pass rate of all the high schools in the district. It offers a wide range of subjects in the humanities and sciences. St Leopold's is, of course, a private school, so may be too expensive for you. But don't worry, there are several other options if you want to follow the academic route. Knowle Grammar School is a state school, so there are no fees, and it has excellent tuition and facilities. It is a boys' school from the ages of 11-16, but from 16-18 it is co-educational. But it is selective, so you'll have to pass an exam to get in. If you're interested in going into Business, check out Wyle River Academy. This school specialises in subjects like Business Studies, Management and Economics. If you prefer the arts, look at the courses on offer at Northacre College. Here you can study woodwork, art, textiles and much more.

Northacre College also offers a wide range of vocational qualifications. You can do a 1-year certificate or a 2-year diploma in subjects like electrics, plumbing, roofing and hairdressing. If you'd prefer to work outdoors, look at Milldown College, where there are courses in Farm Mechanics, Land Management, Animal Management and much more.

A final option is to get an apprenticeship with a local or national company. You will get on-the-job training, gain certificates or diplomas and start earning straight away. But be warned - places are limited! Find out more at the Jobs Fair on 26th May at Northacre College.

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21. The aim of the article is to…

    A. advise young people about how to get to university.

    B. tell young people about the options available.

    C. advise young people to stay in education.

22. The article advises reader who want a professional career to…

    A. go to university immediately.

    B. stay at the same school for two more years.

    C. go to high school for two more years, then get a degree.

23. St Leopold's is the best school for…

   A. good exam results.

   B. humanities and sciences.

   C. facilities.

24. You can only attend St Leopold's school if you…

   A. pay tuition fees.

   B. pass an exam.

   C. study both humanities and sciences.

25. You can only attend Knowle Grammar School if you…

   A. pass an exam.   B. are a boy.   C. can afford the tuition fees.

26. Anna wants to work with horses. Where is the best place for her to study?

   A. Wyle River Academy   B. Northacre College   C. Milldown College

27. Harry wants to be a builder. Where is the best place for him to study?

   A. Wyle River Academy   B. Northacre College   C. Milldown College

28. Kevin wants to be a fashion designer. Where is the best place for him to study?

   A. Wyle River Academy   B. Northacre College   C. Milldown College

29. Caroline wants to run her own company. Where is the best place for him to study?

   A. Wyle River Academy   B. Northacre College   C. Milldown College

30. What is the problem with apprenticeships?

   A. There are few available.

   B. They are expensive.

   C. They don't give you any qualifications.

BIOGRAPHY

Name	Miss Wathaiphan Tanapanyaworakul
Date of Birth	May 12, 1992
Educational Attainment	2015: Bachelor of Education
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